Scientific programme

Session 01. Bioinformatics, quantitative genetics and population genomics with whole genome sequence data

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: B. Gredler

Theatre Session 01

Experiences from genomic prediction with imputed sequence data in different species

SNP data management in genomics pipelines
E. Groeneveld

Genomic prediction in cattle based on sequence data

Accurate sequence imputation enables precise QTL mapping in Brown Swiss cattle

A family-based imputation algorithm for high and low-coverage sequence data
M. Battagin, G. Gorjanc, S. Gonen, R. Antolin and J.M. Hickey

Efficient identification SNPs in high linkage disequilibrium in large genotype and sequence datasets
M.P.L. Calus and J. Vandenplas

Selecting animals for whole genome sequencing: methods optimization and comparison
A. Butty, M. Sargolzaei, F. Miglior and C. Baes

A hidden Markov model to estimate inbreeding from whole genome sequence data
T. Druet and M. Gautier

Accounting for read depth in the analysis of genotyping-by-sequencing data

SNP-effects underlying GBLUP depend on the definition of the genomic relationship matrix
A.C. Bouwman, B.J. Hayes and M.P.L. Calus

Functional annotation of CNV breakpoints in Holstein-Friesian cows

NGS-based analysis of copy number variations in various cattle breeds
**Poster Session 01**

- Genome-wide association study in Brown Swiss for udder traits based on sequence data

- Correlation between DNA methylation in CHFR gene promoter and economic traits in J. Black cattle

- Transcriptome profile analysis of ovarian tissues highlights steroids biosynthetic genes in ewes
  - H. Ghaderi, A. Masoudi and B. Arefnejad

- The analysis of CNV regions in Holstein-Friesian cows

- Genome-wide association study in Brown Swiss for fertility traits based on sequence data

- Genome-wide differential DNA methylation patterns between Iberian & tropical adapted Creole bovines
  - N. Sevane, R. Martinez, P. Orozco-Terwengel and M.W. Bruford

- Functional SNP & splice variants in pigs with divergent lipid phenotypes using genome-wide analysis
  - T. Cardoso, M. Amills, R. Gonzalez-Prendes, R. Quintanilla and A. Canovas

**Session 02. Creating an enduring dairy sector post quota (with ADSA, Erasmus+-ISM+ project, EuroDairy project) part 1**

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: J. Campbell / M. Klopcic

**Theatre Session 02**

- Developments, strategies and challenges for UK dairy sector
  - G. Jones

- Analysis of dairy farmers’ and stakeholders’ expectations and challenges in four European countries
  - M. Klopcič, A. Malak-Rawlikowska, A. Stalgiene and A. Kuipers

- Developments, strategies and challenges for Polish dairy sector
  - A. Malak-Rawlikowska

- Solving the problems facing the dairy sector
  - D. Dobbin

- Developments, strategies and challenges for Netherlands’ dairy sector
  - A. De Veer, I. De Boer and A. Kuipers

  Economic and environmental consequences of milk quota abolition in the Netherlands
  - C.E. Van Middelaar, C.W. Klootwijk, P.B.M. Berentsen and I.J.M. De Boer

- Developments, strategies and challenges for France dairy sector
  - V. Brocard, C. Perrot, G. You and A. Le Gall
Developments, strategies and challenges for Italian dairy sector
A.M. Menghi

Developments, strategies and challenges in the German dairy sector
T. Lindena

An analysis of new entrants into the Irish dairy sector during the last years of milk quota
R. McDonald, B. Horan, K. Pierce and A. Macken-Walsh

Session 03. Feed use efficiency in pigs and chickens

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: G. Bee / D. Torrallardona

Theatre Session 03

ECO FCE: In ovo manipulation: long term effect of synbiotics on morphology of chicken gut
K. Stadnicka, J. Bogucka, G. Elminowska-Wenda, A. Sobolewska, A. Dankowiakowska, A. Szczerba and M. Bednarczyk

ECO FCE: In ovo manipulation – effects on chicken transcriptome and physiology
M. Siwek, A. Dunislaewska, A. Sławinska, P. Kołodziejski, E. Pruszynska-Oszmálę, P. Mackowiak and M. Bednarczyk

ECO-FCE: Faecal microbiota transplant alters the growth and intestinal bacterial profile of pigs

ECO FCE: Peri-natal nutrition and lifetime performance of low birth weight pigs from prolific sows
J.G. Madsen, M. Kreuzer and G. Bee

ECO FCE: Phosphorus nutritional conditioning in broiler chickens
M. Francesch, A.M. Pérez-Vendrell, E. Fàbrega, R. Quintanilla and D. Torrallardona

ECO FCE: In vitro evaluation of exogenous enzymes to improve digestibility in pigs and poultry
D. Torrallardona, J.I. Badiola, A.M. Pérez-Vendrell and M. Francesch

ECO FCE: α-galactosidase and xylanase improve performance of pigs fed soybean and rapeseed meals
S. Carné, J. Estévez and J. Mascarell

ECO FCE: The use of enzymes in pig and broiler diets containing low soya and varying levels of energy and ami
M.E.E. Ball, V.E. Beattie, H. Hayes, P.J. Lawlor and E. Magowan

ECO-FCE: Effect of carbohydrase use and soaking of cereals on the growth of liquid fed finisher pigs
A. Torres-Pitarch, E.G. Manzanilla, G.E. Gardiner, R. Lizardo, D. Torrallardona, J.V. O’Doherty and P.G. Lawlor

ECO FCE: Combined use of cereal extrusion and enzymes in chickens
M. Francesch, I. Riahi, A.M. Pérez-Vendrell, E. Fábrega, M. Gispert and D. Torrallardona
Session 04. Young scientist competition - Genetics Commission part 1

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: I. Blunk

Theatre Session 04

Heritability of udder morphology and colostrum quality traits in swine
A. Balzani, H.J. Cordell, E. Sutcliffe and S.A. Edwards 122

Feeding of Enterococcus faecium NCIMB 10415 to piglets affects B-cells on cell, gene and miRNA level
S. Kreuzer-Redmer, J. Bekurtz, D. Arends and G.A. Brockmann 123

Alternative consideration of social genetic effects models in Duroc pigs
M. Ragab, M. Piles and J.P. Sánchez 123

Patterns of sexual size dimorphism in various chicken breeds
J. Geibel, S. Weigend, A. Weigend, A.R. Sharifi and H. Simianer 124

Improving gait in ducks and chickens: effects of selection on leg morphology and function
B.M. Duggan, P.M. Hocking and D.N. Clements 124

Modulating birth weight heritability in mice
N. Formoso-Rafferty, I. Cervantes, N. Ibáñez-Escriche and J.P. Gutiérrez 125

Local vs global ancestry: regions deviating from genome wide admixture in a composite cattle breed

Effects of heat stress on the transcriptomic profile of blood cells in lactating dairy goats
A. Contreras-Jodar, A.A.K. Salama, G. Caja, S. Hamzaoui, M. Vailati and J.J. Loor 126

Comparing methods to analyse raw, large-scale methane data
M. Szakarlski, G.F. Difford, P. Løvendahl and J. Lassen 126

Fertility and health traits correlations with methane emissions
L. Zetouni, M. Kargo and J. Lassen 127

Bayesian analysis of selection response on linear or ratio feed efficiency traits in pigs
M. Shirali, P.F. Varley and J. Jensen 127

Genotype-Environment interaction for bulls used in expanding dairy herds
S. McParland 128

B-spline Basis Functions for Modelling Marker Effects in Backcross Experiments
M. Reichelt, M. Mayer, F. Teuscher and N. Reinsch 128
Session 05. Improving the quality and sustainability of beef production (with Cattle Network WG and Livestock and Meat Commission NI) part 1

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: J.F. Hocquette

Theatre Session 05

Random regression analyses of carcass traits yield useful herd-year profiles for management purposes
T.M. Englishby, D.P. Berry, M.P. Coffey, K.L. Moore and G. Banos

Composition and sensory qualities of bull beef from different breeds and production systems
G.B. Mezgebo, F.J. Monahan, M. McGee, E.G. O’Riordan, D. Marren, R.I. Richardson and A.P. Moloney

Prediction of carcass and live weights of some beef cattle breeds
Y. Bozkurt, C.G. Tuzun and C. Dogan

Predicted phenotypic carcass meat yield and cut yields in cattle differing in genetic merit
S.M. Connolly, A.R. Cromie and D.P. Berry

Effect of hang, cut, cook and doneness on eating quality
J. Tollerton, N. Gault, E. Tolland, D. Devlin, L. Majury and H. Lewis

Beef eating quality: a European journey
L.J. Farmer

Growth performance and meat characteristics of Awassi sheep that holds the Callipyge gene
K.I.Z. Jawasreh, A.H. Al-Amareen and A.Y. Abdullah

Effect of muscle type and ageing on eating quality of beef
J. Tollerton, N. Gault, E. Tolland, L. Farmer, D. Devlin, L. Majury and H. Lewis

Factors affecting Eating Quality of Northern Irish Beef

The variability of European beef can be reduced by predicting consumer satisfaction

Poster Session 05

Effect of carcass weight on composition and sensory qualities of beef from bulls
G.B. Mezgebo, F.J. Monahan, M. McGee, E.G. O’Riordan, D. Marren, R.I. Richardson and A.P. Moloney

Growth and carcass traits of purebred Simmental and Simmental×beef breed crossbred bulls
M. Pesonen and A. Huuskonen

Performance of bulls offered diets based on whole crop silages with or without protein inclusion
M. Pesonen, E. Joki-Tokola and A. Huuskonen

Effect of using sustained-release non-protein nitrogen on feed conversion efficiency in beef cattle
M. Agovino, A. Linscott and F. Aubry

The effect of suckler cow condition score in pregnancy on calving parameters and progeny performance
D.E. Lowe, F.O. Lively and A.W. Gordon
Growth of bull calves at the dairy farm does not affect their performance as rosé veal calves
A. Jensen, M. Johansen and M. Vestergaard

The impact of animal movements on lifetime performance of beef cattle
V.S. Murphy, D.E. Lowe, F.O. Lively, F.M. Titterington and A.W. Gordon

Effect of feed ration composition on sustainability
L. Mogensen, M.T. Knudsen, I.S. Kristensen, N.I. Nielsen and T. Kristensen

Isotope ratios of bioelements for inferring beef origin and zebu feeding regime in Cameroon
M. Perini, B.M. Nfor, F. Camin and E. Piasentier

Variation in M. longissimus texture and cooking loss from cattle within a commercial supply chain
S. Mackintosh, J. Draper, A. Scott, S. Morgan, H. Powell, I. Richardson and N. Scollan

Genetic variability of the MHC class II (DRB.3) in South African and Namibian beef cattle breeds
L. Haikukutu, T.O. Itenge, L. Bosman, C. Visser, J. Lyaku, F. Mausse and E. Van Marle-Köster

Grass-based production systems for late-maturing sired suckler bulls
K. McMenamin, M. McGee, A.P. Moloney, A.K. Kelly and E.G. O’Riordan

Comparison of methods to evaluate the chemical composition of carcass from beef cattle
M. Al-Jammas, J. Agabriel, J. Vernet and I. Ortigues-Marty

Feed efficiency, carcass traits and selection for yearling weight in Nellore cattle
J.N.S.G. Cyrillo, H.A. Fidelis, L.O. Tedeschi, S.F.M. Bonilha, R.H. Branco and M.E.Z. Mercadante

Indicator-based sustainability assessment of smallholder beef cattle production in South Africa
T. Marandure, C. Mapiye, G. Makombe and K. Dzama

Pasture-based finishing of early-maturing sired suckler beef bulls at 15 or 19 months of age
C. Lenehan, A.P. Moloney, E.G. O’Riordan, A. Kelly and M. McGee

Comparison of rolled barley with citrus pulp as a supplement for growing cattle offered grass silage
C. Lenehan, A.P. Moloney, E.G. O’Riordan, A. Kelly and M. McGee

Restricted or ad libitum creep feeding of nursing beef calves grazing native pastures
A. Simeone, V. Beretta, J. Olaizola, J. Piegas and X. Silveira

The effects of breed, month of parturition and progeny gender on beef cow fertility
F.M. Titterington, S.J. Morrison, F.O. Lively and S. Dawson

Animal welfare index (AWI): an on-farm welfare evaluation of beef farms in Ireland and Belgium
P. Lawrence, M. McGee and B. Earley

Effect of cytoplasmic lineage in genetic evaluation for economic traits in Nellore cattle

Effect of SNP polymorphisms on the intramuscular fat content in Hungarian Simmental cattle
I. Anton, B. Húth, I. Füller, A. Zsolnai and G. Holló

Metabolic and endocrine status in heifers from two beef breeds submitted to different rearing diets
J.A. Rodríguez-Sánchez, I. Casasús, J. Ferrer and A. Sanz

Abundance of beige and brown adipocyte markers in different adipose depots of 26-month-old cattle
K. Komolka, E. Albrecht and S. Maak
Response of early-weaned beef calves in feedlots to non protein nitrogen level in the diet
V. Beretta, A. Simeone, J. Clerc, M. Fonseca and J. Rocco

Identification of genomic regions related to tenderness in Nellore beef cattle

Intramuscular connective tissue properties in longissimus thoracis muscle of Hungarian Simmental
G. Holló, B. Húth, E. Egri, I. Holló and I. Anton

On-line prediction of beef muscle chemical composition and texture using near infrared spectroscopy
J. Cafferky, V. Campos, A. Sahar, R. Hamill, T. Sweeney, G. Downey, A. Cromie and P. Allen

Growth paths for suckler bulls slaughtered at 19 months of age: A meat quality perspective
L. Moran, M.G. O’Sullivan, M. McGee, K. McMenamin, E.G. O’Riordan and A.P. Moloney

Effect of Stress, Fasting, Lairage and interaction with bulls and steers on Beef Eating Quality

Evaluation of marbling traits by X-ray computed tomography in Hungarian Simmental breed
G. Holló, B. Húth, I. Holló and I. Anton

Muscle development as characteristic for beef production in 4 local breeds of cattle
P. Polák, J. Tomka, R. Šveistienė and A. Račkauskaitė

Effect of diets containing sunflower cake on the meat quality of young bulls

Session 06. Mixed farming systems - does diversity bring any benefits and at what scale?

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: J. Ryschawy / M. Zehetmeier

Theatre Session 06

Invited
Integrated crop-livestock systems may increase micronutrient content of foodstuffs
S.L. Kronberg, G.F. Combs, M.A. Liebig and J. Ryschawy

Invited
Mixed crop-livestock systems across scales: toward new agroecological models?
J. Ryschawy

Mixed farming and the sustainability of beef production systems in Wales, UK
P.K. Nicholas-Davies, A. Olaizola, O. Barrantes and G. Evans

Does the diversity of integration practices enhance the resilience of mixed crop-livestock systems

Archimod: a metamodel of farming systems functioning to address future livestock challenges
L. Puillet, O. Martin, B. Méda and F. García-Launay

Invited
The revival of Mixed Farming Systems – will dreams finally become true?
P.L. De Wolf, W. Sukkel, P.A. Galama, J. Verloop and M. Pleijte
How much animal-source food can we produce while avoiding feed-food competition?  
H.H.E. Van Zanten, O. Van Hal and I.J.M. De Boer

Livestock farming system diversity and resource use efficiency – What the history tells for France?  
J.P. Domingues, A.H. Gameiro, T. Bonaudo, B. Gabrielle and M. Tichit

Mixed farming systems in the beef value chain of the city of Malang, Indonesia  
S.J. Oosting, J.J.M. Boekhorst, M.G. Kok and I. Subagiyo

Self-sufficiency for animal feed: a multi-level framework to promote agroecological farming systems  
V. Thenard, A. Charmeau, P. Triboulet and G. Martin

**Poster Session 06**

Crop livestock integration at landscape level in Mediterranean: a comparative analysis  
J. Lasseur, M. Napoléone, M. Mohamed, C.H. Moulin and V. Alary

Opportunities and challenges of diversified crop-livestock system in new reclaimed lands, Egypt  
A. Aboul Naga, V. Alary, M. Osman and X. Juanes

Which animal do farmers need for tropical mixed farming systems?  
N. Mandonnet and T. Ceresita

Test various strategies to reduce Nitrogen (N) Phosphorus (P) and Carbon (C) losses in mixed farms  
H. Chambaut, J.L. Fiorelli, S. Espagnol, P. Mantovi, J. Verloop, S. Maugnan, E. Ruane and P. Nicholas

Are farming systems a key to understand dairy sheep breed management in Thessaly (Greece)?  
L. Perucho, C. Ligda and C.H. Moulin

**Session 07. New legal landscape guiding access and benefit sharing of animal genetic resources**

Date: Monday 29 August 2016; 08:30 – 12:30  
Chair: E. Martyniuk

**Theatre Session 07**

*Invited*  
ABC of the Nagoya Protocol  
E. Martyniuk

*Invited*  
The implementation of the Nagoya Protocol in the EU  
A. Kozłowska

*Invited*  
Exchange of animal genetic resources in research  
M. Tixier-Boichard

*Invited*  
Genetic resources in commercial animal breeding  
J.G.B. Venneman

*Invited*  
FAO contribution to support implementation of the Nagoya Protocol in agriculture  
I. Hoffmann and R. Baumung

*Invited*  
Case studies performed in preparation of the EU Sectorial Guideline on Animal Breeding  
B. Visser
Session 08. Genomic selection for small ruminants in Europe – how applicable for the rest of the world?

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: T. Ådnoy

Theatre Session 08

**invited** Genomic selection in sheep: where to now?
J. McEwan, K. Dodds, S. Rowe, R. Brauning and S. Clarke

**invited** The potential for genomic selection for small ruminants (SR) in developing countries
R. Mrode, G. Mekuriaw, J. Mwacharo and A. Dijkstra

**invited** Implementation of single step genomic selection in UK dairy goats
S. Mucha, R. Mrode, M. Coffey, S. Desire, I. Maclaren-Lee and J. Conington

**invited** Practical challenges of implementing Genomic Selection and breeding British Texel Sheep
J. Yates

Implementation strategies for genomic selection in Norwegian sheep breeding
M. Lillehammer, A.K. Sonesson and T.H.E. Meuwissen

**invited** Genomic selection for a multi-breed sheep population in Ireland
N. McHugh, A. O’Brien, E. Wall, K. McDermott, T. Pabiou, S. Randles and D.P. Berry

Imputation of medium density genotypes from custom low density genotype panel in sheep
D.P. Berry, A. O’Brien, S. Randles, K. McDermott, E. Wall and N. McHugh

Sheep breeding, environmental and non genetic factors affecting lamb growth under low imput systems
I. Ben Abdallah and M. Djemali

Candidate mutation responsible for inherited skeletal developmental abnormalities in Cheviot sheep

Poster Session 08

Genetic parameters for breech strike indicator traits in South African merino sheep
A.J. Scholtz, S.W.P. Cloete, J.B. Van Wyk, J.J.E. Cloete and A.C.M. Kruger

Breeding value estimates of fertility traits in Swiss Red Engadine sheep
A. Burren, C. Gazzarin, K. Steiner, A. Spengler and H. Joerg

Association of the ACAA2 gene with dairy traits in Chios sheep
S. Symeou, A. Hager-Theodorides, A. Psifidi, O. Tzamaloukas, G. Banos and D. Miltiadou

Genotype concordance rate between Illumina and Affymetrix ovine genotype panels
D.P. Berry, E. Wall, A. O’Brien, K. McDermott, S. Randles, T. Pabiou, P. Flynn, S. Park, R. Weld, D. Kelly and N. McHugh

Runs of homozygosity profiles in five sheep breeds
D.C. Purfield, E. Wall and D.P. Berry
Genomic selection in Romanian indigenous sheep breeds: preliminary results

Genomic study of horn morphology in Italian goat populations
A. Talenti, G. Rota, S. Frattini, B. Coizet, G. Minozzi, G. Pagnacco and P. Crepaldi

Influence of non-genetic factors in growth and reproductive traits of Santa Ines sheep
R.L. Aguirre, J.P. Eler, E.C. Mattos and J.B.S. Ferraz

Evaluation of the inbreeding effects in a small sheep population and reducing it by rotating rams
H. Khalfaoui and M. Djemali

Democratization of genomic tools to improve sheep productivity in developing countries
F. Gazbar, I. Ben Abdallah and M. Djemali

Novel phenotype management using molecular characterization in Prolific sheep ‘W’ line in Tunisia
S. Bedhiaf-Romdhani, B. Jemmali and Y. Ben Sassi

Inference of population structure of 16 sheep breeds using SNP genotype data

Session 09. Healthy livestock production through responsible use of antimicrobials

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: E. Sossidou

Theatre Session 09

Advancement of Dairying in Austria (ADDA): Farmer surveys on mastitis, DCT, and antibiotic use
C.L. Firth, W. Obritzhauser, C. Egger-Danner and K. Fuchs

Prevalence of health and welfare conditions in growing pigs on a farm with high antibiotic usage

Phenotypic and genotypic identification of antibiotic resistance genes of staphylococci isolated from R. Saidi

Antibiotic and synthetic growth promoters in animal diets
M. Gonzalez Ronquillo, J.C. Angeles Hernandez and O.A. Castelan Ortega

Establishing a monitoring system for the use of antibiotics at animal level in Austria
W. Obritzhauser, M. Mayerhofer, C. Firth, K. Fuchs and C. Egger-Danner

Associations between mycobacterial purified protein derivative hypersensitivity and MAP ELISA
A.E. Kennedy, N. Byrne, J. O’Mahony and R.G. Sayers

Managing antibiotic use in the Netherlands
A. Kuipers and H. Wemmenhove

Chicken embryo lethality assay for determining the virulence of Enterococcus faecalis
A.E. Blanco, M. Barz, W. Icken, D. Cavero, A.R. Sharifi and M. Voss

On farm risks associated with the prevalence of resistant strains of Escherichia Coli: A pilot study
A. Xexaki, E. Sossidou, G. Filioussis and E. Petridou
Effects of antibiotic prophylaxis on the gut microbiome and performance of growing broiler chicks
A.A. Tonks, M.J. Woodward and C. Rymer

Session 10. Aquaculture and coastal fisheries

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: M. Service

Theatre Session 10

invited
Comparing agricultural and urban nutrient loads to coastal systems
J.P. Nunes and J. Gomes Ferreira

invited
Partitioning the faecal load to coastal waters
M. Taylor

invited
Application of a multi-model framework for integrated ecosystem management in lough foyle

invited
The interaction between natural benthic communities and cultivated blue mussels in Belfast Lough
H. Moore, A. Boyd, R. Corner, J.G. Ferreira and M. Service

invited
Achieving a balance – the key to sustainably managing native oyster stocks
C. Bromley

invited
Sustainable Shellfish aquaculture the Ecosystem approach
M. Service

Session 11. Physiological limits of performance due to disproportionate tissue growth

Date: Monday 29 August 2016; 08:30 – 12:30
Chair: K. Huber

Theatre Session 11

invited
Disproportionate growth in farm animals – prerequisite for a disturbed health
K. Huber

invited
Evidence for developmental programming in dairy cattle
G. Opsomer, M. Van Eetvelde and M.M. Kamal

invited
Delayed development in Large White Purebreds than Crossbreds with Meishan born in the Same Litter
L. Canario, M.C. Père, H. Quesnel, Y. Billon, W. Hébrard, J. Riquet, P. Mormède and L. Liaubet

Impact of dietary L-arginine supply during early gestation on myofiber development in newborn pigs
J.G. Madsen and G. Bee

invited
Microstructure and function of the thyroid gland may relate to feed efficiency in the bovine
J. Ormon, S. Bourgon, J. Munro, A. Macdonald, S. Lam, S. Miller and Y. Montanholi

invited
Impact of pre-weaning nutritional regimes on mammary gland development in heifer calves
S. McCoard, T. Silvestre, A. Molenaar, P. Muir, J. Koolaard, V. Burggraaf, N. Wards and D. Pacheco
**Poster Session 11**

Effect of intra uterine position on corporal composition of rabbit fetuses


Growth, carcass and feed efficiency traits of lambs born to ewes restricted during mid gestation

L. Piaggio, G. Ferreira, M.J. Marichal, R. San Julián, F. Baldi and G. Banchero

Effect of nutritional restriction in late gestation on beef female calves live weight and placentas

C. Batista, J.I. Velazco, G. Banchero, F. Baldi and G. Quintans

Genetic parameters for growth and carcass traits of Pekin ducks

M. Waehner, H. Pingel, R. Fischer and R. Wehlitz

Influence of diet on carcass characteristics of broiler chicken

R. Dominguez, J. Méndez, D. Franco, M.V. Sarriés, P. Cachaldora and J.M. Lorenzo

Response of bovine jejunal transcriptome to dietary restriction and subsequent compensatory growth


Effect of plane of nutrition on age at puberty and blood metabolites in Holstein Friesian bulls

C. Byrne, A.M. English, S. Fair, P. Lonergan and D.A. Kenny

Dietary’s effect of protein levels on digestive organs and small intestine histologic of rabbits


Testicular development and the attainment of puberty in Icelandic male horses

O.R. Dyrmundsson, G.G. Gunnarsson and I. Sveinsson

**Session 12. The use of genetics and genomics to improve disease and welfare traits in cattle (with INTERBULL)**

Date: Monday 29 August 2016; 14:00 – 18:00

Chair: A.W.M. Roozen

**Theatre Session 12**

GénoSanté: Improve the productive health of dairy cows by genomic selection and management

H. Leclerc, A. Barbat, M. Philippe, S. Fritz, J.-B. Davière, L. Manclaux, F. Guillaume, T. De Bretagne and D. Boichard

Quantitative genetic analysis of the bTB diagnostic Single Intradermal Comparative Cervical Test

S. Tsairidou, S. Brotherstone, M.P. Coffey, S.C. Bishop and J.A. Woolliams

Host genetics of resistance to bovine tuberculosis infection in dairy cattle


Genome-wide association identify regions underlying bovine tuberculosis resistance in dairy cattle

GWAS of resistance to paratuberculosis in French Holstein and Normande cattle

Unravelling the contribution of host genetics to infectious disease outbreaks

Estimating gene effects on host susceptibility and infectivity from individual disease status (0/1)
F. Biemans, P. Bijma and M.C.M. De Jong

Interest and limits of a bovine MD chip to study Bos taurus × Bos indicus crossbred animals in India
D. Cruz Hidalgo, M. Swaminathan, P.D. Deshpande, M. Boussaha, R. Saintilan, D. Laloe and V. Ducrocq

Detection of QTL for mastitis resistance and related functional traits in Bos taurus and Bos indicus
J. Jardim, G. Sahana, C. Quirino, M. Peixoto, G. Santos and M. Lund

Using whole genome sequences to identify QTL for udder health and morphology in French dairy cattle
T. Tribout, M. Barbat, A. Govignon-Gion, A. Launay, R. Lefebvre, A. Barbat, M. Boussaha, P. Croiseau, M.P. Sanchez and S. Fritz

Including cow genotypes improved the genetic predictions of claw disorders in Norwegian Red
C. Ødegård, M. Svendsen and B. Heringstad

A genome wide association study for Bovine Digital Dermatitis using M-stages

A benefits model for a maternally focused beef breeding program in Ireland incorporating genomics
F. Hely, P. Amer, C. Quinton, T. Byrne and A. Cromie

Genomic breeding values of carcass, female fertility and calf survival traits for UK Limousin cattle
K.L. Moore, A. Moran and M. Coffey

Poster Session 12

Underlying mutation(s) for a deformed cleft lip in a Holstein-Friesian sire family
M.M. Judge, B.W. Kirkpatrick, J.F. Kearney and D.P. Berry

The estimation of additive and dominance effects underlying lameness in Fleckvieh and Braunvieh cows
J. Szyda, T. Suchocki, M. Fraszczak, H. Schwarzenbacher and C. Egger-Danner

Genomic selection: the added value for the industry in the Netherlands
I.J.P. Vermeer, W.M. Stoop and G. De Jong

Session 13. Creating an enduring dairy sector post quota (with ADSA, Erasmus+-ISM+ project, EuroDairy project) part 2

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: R Keatinge / A. Kertz

Theatre Session 13

Challenges and new developments in dairy cattle nutrition
G. Van Duinkerken and R.M.A. Goselink
Is dairy crossbreeding a profitable way for Holstein farms?  
C. Dezetter, N. Bareille, D. Billon, C. Cortes, C. Lechartier and H. Seegers

Challenges, new developments, techniques, and knowledge gaps in cow herd health  
H.W. Barkema

Challenges and developments in nutrient use efficiency with a focus on land and manure management  
D.A. McConnell

Role of Dilution of Maintenance in reducing the environmental impact of animal protein production  
R.A. Cady

Helping dairy farmers to improve economic performance utilizing data-driven DSS tools  
V.E. Cabrera

Outlook for dairy markets, price volatility and farm economic performance in Ireland  
T.H. Hennessy and T. Donnellan

**Session 14. Feed use efficiency in pigs and chickens**

Date: Monday 29 August 2016; 14:00 – 18:00  
Chair: P. Lawdor / P. Varley

**Theatre Session 14**

ECO-FCE: Growth and intestinal microbiota differ in pigs ranked on RFI on three European sites  
U.M. McCormack, T. Curiao, S. Buzoianu, E. Magowan, B. Metzler-Zebeli, D. Berry, F. Crispie,  
O. O'Sullivan, P. Cotter, H. Reyer, G.E. Gardiner and P.G. Lawlor

ECO-FCE: Assessing differences in intestinal function in pigs of low and high residual feed intake  
B.U. Metzler-Zebeli, P.G. Lawlor, E. Magowan, M. Hollmann and Q. Zebeli

ECO-FCE: Holistic transcriptome-profiling of feed conversion efficiency (FCE)-divergent pigs  
H. Reyer, M. Oster, E. Magowan, R. Quintanilla Aguado, J. Horodyska, R.M. Hamill, P. Lawlor,  
B. Metzler-Zebeli, E. Murani, S. Ponsuksili and K. Wimmers

ECO-FCE: Feed efficiency related gut microbiota profiles vary in chickens raised at two locations  
S.-C. Siegerstetter, R.M. Petri, E. Magowan, Q. Zebeli, P.G. Lawlor and B.U. Metzler-Zebeli

ECO-FCE: Improved feed efficiency in chickens is associated with intestinal size and function  
B.U. Metzler-Zebeli, M. Hollmann, E. Magowan, P.G. Lawlor and Q. Zebeli

ECO FCE: Molecular alterations of broilers differing in feed conversion efficiency (FCE)  
H. Reyer, N. Trakooljul, E. Magowan, R. Quintanilla Aguado, B. Metzler-Zebeli, E. Murani, S. Ponsuksili  
and K. Wimmers

ECO FCE: Residual feed intake and feeding behaviour in group housed pigs  
M. Palmer, E. Magowan, B. Metzler-Zebeli, P. Lawlor and N.E. O’Connell

ECO FCE: An industry view on the future focus of feed use efficiency  
R.C. Borg

ECO FCE: Understanding the genetic architecture of feed efficiency traits in monogastrics  
and K. Wimmers
Session 15. Precision breeding: the role of new technologies in enhancing breeding programmes

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: B. Whitelaw

Theatre Session 15

Editing allelic variation into the porcine genome
B.A. Whitelaw

Potential of promotion of alleles by genome editing in breeding programs
invited

Session 16. Improving the quality and sustainability of beef production (with Cattle Network WG and Livestock and Meat Commission NI) part 2

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: J.F. Hocquette

Theatre Session 16

Modelling energy partitioning and milk production performance of suckler beef cows
D. Sapkota, A.K. Kelly, M. McGee and P. Crosson

Does suckler cow genotype matter at calving?
D.E. Lowe and F.O. Lively

Net Feed Efficiency (NFE) measured in finishing Stabiliser steers
J.J. Hyslop, R. Fuller, U. Taylor, D. Thirlwell, D. Dreux and D. Pullar

Associations of feed efficiency and animal category with rumen functional parameters in cattle
S. Lam, J. Munro, L. Guan, M. Steele, F. Schenkel, S. Miller and Y. Montanholi

The effect of increased production efficiency in beef production I: Cow population size
L. Aass, B.A. Áby and O.-M. Harstad

The effect of increased production efficiency in beef production II: Greenhouse gas emissions
B.A. Áby, P. Crosson, L. Aass and O.M. Harstad

Environmental sustainability of integrated France-Italy specialized beef chain using the LCA method
M. Berton, M. Lherm, J. Agabriel, L. Gallo and E. Sturaro
Evaluation of production efficiencies among primiparous suckler cows of diverse genotype at pasture
S. McCabe, N. McHugh, N. O’Connell and R. Prendiville

A survey of commercial beef farms: investigating the impacts of farm management on herd fertility

Analysis of suckler cow reproductive performance on 37 Irish beef farms
R.F. Taylor, M. McGee, A.K. Kelly and P. Crosson

Improving efficiency and reducing waste in the beef supply chain
N. Scollan, S. Mackintosh, I. Richardson, A. Singh, N. Mishra and J. Draper

Alternate finishing strategies for dairy steers
B. Murphy, A.K. Kelly and R. Prendiville

Willingness to pay for beef is similar between different consumer groups

Poster Session 16

Suckler cow efficiency: GxE interaction in British and continental beef cattle breeds
M. Wetlesen, B.A. Åby and L. Aass

Comparative carcass characteristics of progeny from high and low replacement index cows
S. McCabe, N. McHugh, N. O’Connell and R. Prendiville

Influence of population structure on the compilation of the Bonsmara genomic reference population
L. Bosman, R.R. Van Der Westhuizen, C. Visser and E. Van Marle-Köster

An evaluation of synchronisation methods for suckler herds
F.O. Lively, D. Anderson and D.E. Lowe

Using consumer based assessments to derive economic values for quality of pork meat
A.D.M. Biermann, E. Rommelfanger, J. Anthe, H. Frevert and S. König

Response of early-weaned beef calves in feedlots to protein level and grain source in the diet
V. Beretta, A. Simeone, F. Pérez and S. Risso

A parsimonious imprinting model applied to Simmental slaughterhouse data
I. Blunk, M. Mayer, H. Hamann and N. Reinsch

Towards more efficient use of performance test data for Norwegian beef cattle
K. Haugaard

Ultra-low density genotype panels for breed assignment of Hereford cattle
M.M. Judge, M.M. Kelleher, J.F. Kearney, R.D. Sleator and D.P. Berry

Cortisol response to ACTH challenge in beef heifers divergently ranked on phenotypic RFI
A.K. Kelly, P. Lawrence, B. Earley, D.A. Kenny and M. McGee

GWAS studies reveals genomic regions related to early pregnancy in Nellore (Bos indicus) heifers
G.A. Oliveira Jr., A.S.M. Cesar, J.B.S. Ferraz and D. Garrick
Session 17. Livestock research priorities and the global funding challenge (with Agri-Food and Biosciences Institute)

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: L. Sinclair

Theatre Session 17

invited
An international perspective on research funding
A.R. Peters

invited
H2020: influencing it’s development and implementation
L. Mahy

invited
A better return for dairy farmers on funds for research and knowledge transfer by more international cooperation
W. Koops

invited
The UK agricultural strategy: a platform for sustainable innovation and commercial success
J. Bainbridge

invited
An introduction to the UK’s new Centres of Excellence – CIEL, Agri-EPI, Agrimetrics
S. Hoste, D. Ross and D. Flanders

Session 18. Free communications in pig production

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: G. Bee

Theatre Session 18

Pig carcass tail lesions: associations with record keeping and farm performance parameters
N. Van Staaveren, A. Hanlon and L. Boyle

What do maternal tests actually test?
C.G.E. Grimberg-Henrici, I. Czycholl, O. Burfeind and J. Krieter

Chemical Causes of Pig-House Odour
L.J. Farmer, J.T. Kennedy, T.D.J. Hagan and E. Magowan

The impact of the sanitary environment on health, pubertal development and sex odour of male pigs
S.P. Parois, A. Faouen, N. Le Floc’h and A. Prunier

Breed and feeding effects on boar taint under organic conditions
H. Brandt, K. Höinghaus, R. Bussemas and F. Weißmann

Are testis volume and boar taint related: a trial in entire and immunocastrated boars
M. Bernau, S. Schwanzit, L.S. Kreuzer, P.V. Kremer-Rücker and A.M. Scholz

Consumer evaluation of different cooking methods to deal with boar taint in fresh meat
F. Borrisser-Pairó, N. Panella-Riera, M. Egea, M.B. Linares, M. Gil, M.A. Oliver and M.D. Garrido

The relationship between feed efficiency and the expression of genes associated with appetite
S. Vigors, T. Sweeney, A.K. Kelly and J.V. O’Doherty
Genotype by diet interactions in selection lines for residual feed intake in pigs

Transglycosylated starch beneficially shifts digestion to the hindgut in growing pigs
M.A. Newman, Q. Zebeli, A. Ladinig and B.U. Metzler-Zebeli

Home grown rapeseed meal as soya bean meal alternative for grower and finisher pigs

Faba beans to pigs: properties and possibilities of different cultivars
E. Ivarsson and M. Neil

Effect of hemp products on gastric ulcers in growing pigs

Nurse sow strategies: an effective way to rear super-numerous piglets?
O. Schmitt, E. Baxter, L. Boyle and K. O’Sdriscoll

**Poster Session 18**

Oral fluid samples in group-housed sows: a welfare-friendly method alternative to blood samples?
C. Fablet, V. Dorenlor, F. Eono, S. Eudier, E. Eveno, D. Liegard-Vanhecke, N. Rose and F. Pol

Alterations in metabolites and hormones of pigs following anaesthesia
G. Das, A. Vernunft, S. Görs, E. Kanitz, J. Weitzel, K.-P. Brüssow and C.C. Metges

Association of polymorphism in MC4R gene with muscle and backfat thickness in different ages of pigs
J. Tomka, K. Vašíčková, I. Baheľka, D. Vašíček, M. Oravcová and M. Bauer

Gene co-expression networks and profiles reveal potential biomarkers of boar taint in pigs
M. Drag, R. Skinkyte-Juskiene, D.N. Do, L.J.A. Kogelman and H.N. Kadarmideen

Transglycosylated starch alters lipid metabolome and improves insulin response in growing pigs
M.A. Newman, Q. Zebeli, E. Eberspächer and B.U. Metzler-Zebeli

Use of phytase and xylanase to improve the nutritional value of rice co-products fed to pigs
G. Casas and H. Stein

Sex and extruded linseed diet +/- concentrate in fiber effect on the fatty acid composition of pork
A. De Tonnac, J. Mourot and M. Guillevic

Indices of economic efficiency the weaner production at Croatian piggeries to be sustainable
M. Sviben

The efficiency of the weaner production determined by the sows’ ability, the use of sows and pens
M. Sviben

Attempt of SPME technique for analysis quality of boar’s semen
A. Zwyrzykowska, K. Špitálniak, W. Bielas, R. Kupczyński, A. Szumni and B. Jarosz

Weaner pig performance using a wet or dry feed system
P. McMullen, R. Wregor, W. Henry, A. O’Connell and E. Magowan

Investigating the association of porcine PCSK9 genotype and muscle fatty acid composition
W. Chański, R. Gonzalez-Prendes, A. Castelló, J. Jordana, A. Manunza, R. Quintanilla and M. Amills
Covariance components for growth of boars during on-farm test
A. Ule, M. Klopčič, M. Kovač and Š. Malovrh

Session 19. New challenges in environmental assessment: are LCA and ecosystem service assessment frameworks compatible?

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: T. Turini

Theatre Session 19

invited
The role of life cycle assessment in environmental decision making in livestock production
I.J.M. De Boer

invited
Emerging challenges and opportunities in ecosystem service assessment in the livestock sector
M. Tichit

Interactive debate with audience on the two keynote talks
T. Turini

invited
Evaluating ecosystem services in the life cycle assessment framework
T. Nemecek

invited
Fitting ecosystem services assessment into the LCA framework
C. Cederberg

Utility of ecosystem services to inform regional livestock management: beyond a choice experiment
L. Goti, A. Bernués and R. Ruiz

Livestock cultural and territorial vitality services are key to unlock the agroecological transition
J. Beudou, G. Martin and J. Ryschawy

Analysis of the net food production of different livestock categories in Austria
P. Ertl, A. Steinwidder, W. Knaus and W. Zollitsch

Poster Session 19

Land occupation for livestock feed production in Austria
P. Ertl, A. Steinwidder, W. Knaus and W. Zollitsch

Life cycle assessment models for prediction of dairy farm GHG emissions using Tiers 2 and 3 methods
T. Yan

Assessing sustainability in chicken supply chains: OVALI, a methodology shared by stakeholders
B. Méda, J. Protino, L. Dusart, P. Lescoat, P. Magdelaine, C. Berri and I. Bouvarel

Session 20. Nutritional physiology

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: H. Sauerwein

Theatre Session 20

invited
Elaboration of an experimental model of the oxidative stress in weaned piglets
E. Royer, F. Barbé, D. Guillou, Y. Rousselière and E. Chevaux
Mitochondrial abundance and respiratory chain activities in tissue of cattle divergent in RFI
C.E. McKenna, D. Kenny, R. Porter and S. Waters

Muscle and serum acylcarnitine profiles in dairy cows during the periparturient period

Health and metabolism as reflected by calves’ plasma redox state
A. Shabtay, A. Asher, V. Sibony, R. Agmon, S. Weyl-Feinstein and M. Cohen-Zinder

Effect of nutrient supply on mammary gland development and gene expression in pre-weaned calves
L.N. Leal, G.J. Hooiveld, M.A. Steele, M.V. Boeckhoten, F. Soberon, M.E. Van Amburgh and J. Martín-Tereso

Parathyroid hormone response to long-term phosphorus supplementation in steers

Novel physiological responses in phosphorus deficient beef cows

Hydroxy-selenomethionine: an efficient source of selenium in fattening pigs
S. Green, K. Coppens and P.A. Geraert

Added dietary cobalt and vitamin B12 in the periparturient period in dairy cows
D.V.W. Achchillage, A.H. Brassington, K.D. Sinclair and L.A. Sinclair

Relationship between mitochondria and compensatory growth in Holstein Friesian bulls
C.E. McKenna, K. Keogh, S. Waters, D. Kenny, R. Porter and A. Kelly

Tissue mRNA expression of branched-chain amino acid catabolism enzyme in early lactating dairy cows

Poster Session 20

OH-Selenomethionine: an efficient source of functional selenium in dairy cows
M. Briens, L. Bahloul, L. Saibi, P.A. Geraert and Y. Mercier

Endotoxin concentrations in the gut increase from the duodenum to the ileum in broiler chickens
C. Emsenhuber, N. Reisinger, E. Mayer and G. Schatzmayr

Immunogenic properties of Lactococcus and Lactobacillus probiotics in chicken HD11 cell line
A. Slawinska, A. Plowiec, A. Dunislawska, M. Siwek and H. Bluyssen

Effect of essential oils on NK cell activity in poultry
H. Al-Khalaifa

Duodenal morphometry and digestibility of broilers fed with dry whey alone or combined with butyrate
C. Pineda-Quiroga, R. Atxaerandio, R. Ruiz and A. García-Rodriguez

The effects of various dietary vegetable oil sources on villi morphology & liver aldehydes in layers
A. Hajibabaei, S.H. Golzar Adabi, N.H. Casey and A.G. Bayraktaroglu

Fate of a brominated flame retardant (HBCD) in chickens and pigs: a generic modelling approach
B. Méda, E. Royer, S. Guérin, A. García De Salazar, E. Domínguez-Romero, J. Henri, A. Travel, E. Baéza and C. Jondreville
Effect of feeding dietary AlgamuneTM AM on the performance of piglets
N.S. Muley, J.E. Zerrahn, J. Busch and A. Lemme

Effect of spay-dried porcine plasma in weaned piglets against an E. coli challenge
X. Guan, F. Molist, C. Van Vuure and P.J. Van Der Aar

Effect of zinc oxide sources and dosages on intestinal bacterial counts and gut integrity of piglets
J. Michiels, N. Van Noten, J. Degroote, A. Romeo and W. Wang

Vitamin E and selenium injections improved the reproductive performance of Awassi ewes
M.S. Awawdeh, A.H. Eljarah and M.M. Ababneh

Reducing rumen fermentation of wheat with NaOH can ameliorate heat stress in grain-fed sheep
P.A. Gonzalez-Rivas, P.A. Giraldo, K. Digiacomo, B.J. Leury, J.J. Cottrell and F.R. Dunshea

Comparing the efficiency of intravaginal progesterone dispenser to CIDR for Awassi sheep
R. El Balaa, E. Mousaoumai, P. Aad, K. Houchaimi and S. Abi Saab

Can metabolomics help to predict amino acid fluxes across animal tissues?

Effect of Marjoram and Chamomile extracts on ram semen characteristics after freeze-thawing process
H. Karimi, H. Daghigh Kia, F. Sadeghi Sadegh Abad and H. Vaseghi

Effect of eCG on amino acids concentrations in follicular fluid of repeat breeder cows
M.M. Ababneh and S. Manasrah

Effect of forage type fed with or without molybdenum and sulfur inclusion on copper status of lambs
A. Hussein

Effect of artificial rearing on fatty acid metabolism and adipogenesis in lambs
G. Theodorou, E. Tsiplakou, G. Papadomichelakis, D. Sparaggis, I. Politis, V. Christodoulou and G. Zervas

Session 21. Aquafeed and aquabreed

Date: Monday 29 August 2016; 14:00 – 18:00
Chair: E. Auclair

Theatre Session 21

invited
Historical developments and current issues in fish nutrition
J.W. Schrama and S.J. Kaushik

invited
No fish meal and fish oil in aquafeed: a challenge for the sustainable development of aquaculture
S. Skiba-Cassy, V. Lazzarotto, G. Corraze and F. Médale

Evaluation of dietary wheat gluten and scFOS on gut health and growth performance of rainbow trout
S. Voller, A. Rodiles, M. Rawling, S. Davies, E. Apper and D. Merrifield

invited
Feeding ragworm (N. virens) or mussel (M. edulis) to sole (S. solea) alleviates nutritional anaemia
J. Kals

Effect of iron source on the alleviation of nutritional anaemia in common sole (Solea solea)
J. Kals, R.J.W. Blonk, H.W. Van Der Mheen, J.W. Schrama and J.A.J. Verreth
The effects of dietary inulin on growth performance and health status of juvenile Nile tilapia
N. Tiengtam, S. Khempaka, P. Paengkoum and S. Boonanuntanasarn

Random regression analysis of feed efficiency in families of Turbot (Scophthalmus maximus)
W.M. Rauw, A. Kause, S. Cabaleiro, R. Caamaño, L.A. García-Cortes and L. Gomez-Raya

Genetic evaluation with uncertain parentage in aquaculture

Quantitative genetics of susceptibility of Atlantic salmon to the salmon louse
B. Gjerde

**Poster Session 21**

Effects of feeding polyphenols extracted from grapes on flesh quality in farmed sea bass

The replacement of fish meal with rice wine residual on growth performance in diets of Thai Panga
K. Taveewannaboon and S. Ponchunchoovong

Genetic variation in microenvironmental plasticity of body weight in Tilapia (Oreochromis niloticus)
S. Agha, A. Doeschl-Wilson, W. Mekkawy, C.E. Lind, J. Benzie and N. Ibanez-Escriche

Recombinant Saccharomyces cerevisiae expressing delta 6 desaturase of Nile tilapia
S. Boonanuntanasarn

**Session 23. Award Ceremony and Plenary Session**

Date: Tuesday 30 August 2016; 08:30 – 12:30
Chair: P. Chemineau

**Theatre Session 23**

*invited* Livestock, land use, global change and food security
T.D. Searchinger

*invited* Grasslands, future food demand and environmental impact
J.F. Sousanna and P. Dillon

*invited* Improving the lives of farm animals: science in the development of valid welfare indicators
C.J. Nicol

*invited* The role of mixed crop-livestock farming systems in ensuring food security
P. Thornton and M. Herrero

*invited* Animal-derived foods for sustainable diets across the life stages: do they have a future?
D.I. Givens
Session 24. Breeding and reproduction in livestock systems in 2030 and beyond: how will science bring us there?

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: J.G.B. Venneman

Theatre Session 24

**invited**

FABRE TP: Promoting research and innovation activities in the animal breeding and reproduction sector

*J. Venneman and M. Van Straten*

**invited**

Genome editing in animal breeding

*B. Whitelaw*

**invited**

Biotechnologies and precision farming: a new era for the ruminants breeding sector

*X. David*

**invited**

Poultry breeding towards 2030

*V. Olori and A.M. Neeteson-Van Nieuwenhoven*

**invited**

The perspectives of genetically modified livestock in agriculture and biomedicine

*H. Niemann*

**invited**

Pig breeding into the 21 century a view towards 2030 and beyond

*C. Lewis*

**invited**

Salmon aquaculture 2030: what difference will new breeding technologies make?

*A. Norris*

Session 25. Young Train: Innovative research and extension in dairy farming, cattle and products

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: A. Kuipers / P. Aad

Theatre Session 25

**Agreement of two Laser Methane Detectors with respiration chambers and in a dairy barn**

*D. Sorg, S. Mühlbach, F. Rosner, B. Kuhla, M. Derno, S. Meese, A. Schwarm and H.H. Swalve*

**Factors associated with IgG concentration and specific antibody inhibition in bovine colostrum in NI**

*A. Dunn, S. Morrison, A. Ashfield, M. Welsh and A. Gordon*

**Metabolic adaptation of periparturient dairy cows characterised by changes of the blood metabolome**

*Á. Kenéz, S. Dänicke, M. Von Bergen and K. Huber*

**An automated warning system for lameness in dairy cows**

*D. Piette, T. Norton and D. Berckmans*

**The use of mid-infrared spectrometry to estimate the ration composition of lactating dairy cows**

*M. Klaffenböck, A. Steinwidder, C. Fasching, G. Terler, L. Gruber, G. Mészáros and J. Sölkner*

**Myoepithelial cell contraction participates in mammary epithelial cell exfoliation in cow milk**

*L. Herve, H. Quesnel, S. Wiart, P. Lamberton, C. Mustière, V. Lollivier and M. Boutinaud*
Evaluation of genetic beta casein variations in a dairy cattle herd in Germany
A.-S. Kraus, M. Bernau, E. Märtlbaumer and A.M. Scholz

Replacing grass silage with forage pea silages in the diet of dairy cows on milk fatty acid profile
C.E.A. Campbell, J.A. Huntington and L.A. Sinclair

Comparative performance of Holstein-Friesian dairy cows of contrasting Economic Breeding Index
M. O’Sullivan, S. McParland, K.M. Pierce and F. Buckley

Profiles of mammary adaptability and associated traits in dairy cows using a 24-h milking interval
C. Charton, H. Larroque and J. Guinard-Flament

Discovery of new αs2-casein isoforms suggests 2 phosphorylation pathways

Dietary inclusion of marine algae and its impact on milk composition and performance in dairy cows
B.E. Till, J.A. Huntington, J. Taylor-Pickard and L.A. Sinclair

Comparative efficiency of lactation curve models using Irish experimental dairy farms data
F. Zhang and M. Murphy

American and German citizen attitudes towards cow-calf separation on dairy farms
G. Busch, D.M. Weary, A. Spiller and M.A.G. Von Keyserlingk

Poster Session 25

Tasting acid coagulated, ripened and blue goat cheese combined with tocte, honey and blackberry jam
V. Inca Guerrero, E. Ureña Ureña, I. Barba Cuji, J. Palmay Paredes, C. Hernández Maya, R. Remache,
J. Espinoza Castro, J. Erazo Solines and D. Sánchez Macías

Characterizing the mammary epithelial cell exfoliation process during milking in dairy cows
L. Herve, V. Lollivier, P. Lamberton, S. Wiart, S. Philau, H. Quesnel and M. Boutinaud

Actual purchase dairy products and expectative after introducing the goat cheese benefits to Andeans
V. Inca Guerrero, E. Ureña Ureña, I. Barba Cuji, R. Remache, J. Palmay Paredes, C. Hernández Maya,
J. Espinoza Castro and D. Sánchez Macías

Milking interval and cisternal udder evaluation in Egyptian Maghrebi camels (Camelus dromedarius L.)
E.B. Abdalla, G. Caja, A.F. Seioudy, O.A. Salama and M.H. Farouk

Relationship between in-line recorded milk flow rate and longevity in Estonian Holstein cows
T. Kaart, A. Tänavots, M. Liiva and H. Viinalass

Feed intake of dairy cows ante partum and the effect of milk production and metabolism post partum
P. Kühne, H. Scholz and T. Engelhard

The use of soy lecithin in fatty dairy cows during perinatal period
E. Wojtas and A. Zachwieja

Genetic relationships between fertility and milk coagulation in two Estonian dairy cattle breeds
M. Liiva, T. Kaart, M. Vallas and H. Viinalass

Measurement of rumen filling and relation to feed intake of German Holstein cows
P. Kühne, H. Scholz and T. Engelhard
The effect of n-3 fatty acid supplementation on oxidative status in calves
K. Śpitalniak, R. Kupczynski, K. Pogoda-Sewerniak and A. Zwyrzykowska

Session 26. Alternative treatment strategies to address the challenge of antimicrobial resistance (with Alltech)

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: J. Taylor-Pickard

Theatre Session 26

invited
Combatting AMR – new antibiotics and new approaches
B.F. Gilmore

invited
Antimicrobial resistance and its impact on cattle production now and in the future
D.C. Barrett

invited
Shifting the balance: breaking the antibiotic resistance cycle
R. Murphy

invited
Tackling antibiotic resistance
P. Wall

Session 27. Young scientist competition - Genetics Commission part 2

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: M. Martinez Alvaro

Theatre Session 27

Sparse single-step genomic Best Linear Unbiased Prediction in crossbreeding schemes
J. Vandenplas, M.P.L. Calus and J. Ten Napel

Empirical comparison of different methods for genomic evaluation in pigs
A. Fangmann, A.R. Sharifi, M. Erbe and H. Simianer

Power and precision of mapping genes in simulated F2 crosses using whole genome sequence data
M. Schmid, R. Wellmann and J. Bennewitz

Using phenotypes of three-breed cross to improve breeding value estimation of purebred animals
C.A. Sevillano, J.W.M. Bastaiaansen, J. Vandenplas, R. Bergsma and M.P.L. Calus

Genomic evaluation of carcass traits of young bulls: comparison of two and single-step approaches
I. Croué and V. Ducrocq

Joint Estimation of Additive, Dominance and Polygenic Variances Using Female Reference Population
H. Alkhoder, Z. Liu, F. Reinhardt and R. Reents

TagSNP selection and genotype imputation in Atlantic Salmon
S.A. Boison, M. Lillemanger, A.K. Sonesson and M. Baranski

SNP discovery in the sheep milk casein genes using transcriptome sequencing
A. Suárez-Vega, B. Gutiérrez-Gil, C. Klopp, G. Tosser-Klopp and J.J. Arranz

Whole liver transcriptome analysis for the metabolic adaptation of dairy cows
N.T. Ha, C. Drögemüller, F. Schmitz-Hsu, R.M. Bruckmaier, H. Simianer and J.J. Gross
Session 28. Dairy and beef production, breeding and health

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: M. Vestergaard / H. Barkema

Theatre Session 28

Dietary supplementation of Saccharomyces cerevisiae on production and health status in dairy cattle
S. Ghazanfar, M. Qubtia, F. Hassan, A. Muhammad, I. Ahmed and M. Imran

Accuracy of genomic breeding values from endocrine and traditional fertility traits in dairy cows
A.M.M. Tenghe, B. Berglund, R.F. Veerkamp and D.J. De Koning

Bone Alkaline Phosphatase as an indicator of phosphorus status in breeder cows

The impact of the rumen microbiome on the detailed milk fatty acid profile in Danish Holstein cattle

Impacts of energy level of the diet and nature of forage on milk spontaneous lipolysis in dairy cows
E. Vanbergue, J.L. Peyraud and C. Hurtaud

Effects of a by-pass Omega-3 source on milk yield, milk composition and fertility
A.J. Escríbano, J.J. Mallo and M. Quintela

Modeling heterogeneous co-variances for genomic regions in prediction for milk protein compositions
G. Gebreyesus, M.S. Lund, L. Janss, H. Bovenhuis and A.J. Buitenhuis

Partitioning of rumen-protected n-3 and n-6 fatty acids in bovine muscles with different metabolism
C. Wolf, K. Giller, S.E. Ulbrich, M. Kreuzer and J. Berard

Potential use of MIR spectroscopy to assess the origin of milk produced in a PDO area

Effect of regime on vitamin E, A and D in beef
S. Stewart, A. Fearon, C. McRoberts, L. Farmer, N. Gault, C. Ferris and F. Lively

A meta-analysis of the effect of the diet fed to Holstein cows on their milk calcium content
A. Boudon, T. Havard, M. Gelé, B. Rouillé and C. Hurtaud

The challenge of detecting cheese-damaging clostridia in milk
J. Brändle, K.J. Domig and W. Kneifel
**Poster Session 28**

Assessment of passive immunity in Irish dairy and suckler beef calves  
*C.G. Todd, K. Tiernan, M. McGee, P. Crosson, I. Lorenz and B. Earley*

Effect of production area, season and farm dimension on milk production and quality  
*C. Lazzaroni and D. Biagini*

Effect of breed, housing, milking system, farm dimension and season on milk production and quality  
*C. Lazzaroni and D. Biagini*

Individual dairy curd production and association analysis with 14 candidate genes in Italian buffalo  
*G. Cosenza, L. Zicarelli, N.P.P. Macciotta, L. Ramunno and A. Pauciullo*

Factors affecting the freezing point of milk of Polish Holstein-Friesian cows  
*A. Otwinowska-Mindur and E. Ptak*

Data sharing to support breeding decisions in a segmented beef production chain  
*F. Maroto-Molina, A. Gómez-Cabrera, J.E. Guerrero-Ginel, A. Garrido-Varo, J.A. Adame-Siles, R. Santos-Alcudia and D.C. Pérez-Marín*

Evolution of milk composition in cow’s milk during the time course of milking  
*C. Hurtaud, E. Vanbergue, C. Cirot, L. Hervé and M. Boutinaud*

Effect of Spirulina supplementation in heat stressed dairy cows’ ration on milk fatty acid profile  
*M.A. Karatzia, M. Ioannidou, G. Samouris and E.N. Sossidou*

Survey of mycotoxins in grain, feed and diary products in Croatia  
*S. Zjalic, V. Brlek, I. Sabljak, M. Grubelic, L. Coso and M. Matek Saric*

Effect of dietary olive pomace supplementation on cow milk quality  
*F. Castellani, S. Marchetti, L. Grotta, F. Palazzo, E. Marone and G. Martino*

Variability of MIR predicted cheese yield in Walloon Region of Belgium  
*F.G. Colinet, F. Dehareng, C. Bertozzi, D. Veselko, T. Troch, M. Sindic and N. Gengler*

Effects of intensification of grazing systems on meat quality of Nelore steers in Brazil  

**Session 29. Novel milk-based phenotypes for use in breeding and management applications in dairy production (with EU GplusE project)**

Date: Tuesday 30 August 2016; 14:00 – 18:00  
Chair: G. Thaller / M. Crowe

**Theatre Session 29**

Potential of milk MIR spectra to develop new health phenotypes for dairy cows in the GplusE project  
*A. Vanlierde, C. Grelet, N. Gengler, C. Ferris, M.T. Sorensen, J. Höglund, F. Carter, A. Santoro, K. Hermans, M. Hostens, P. Dardenne and F. Dehareng*

Potential for novel metabolite measurements in milk as biomarker phenotypes for dairy traits  
*J. Höglund, M.T. Sorensen, T. Larsen, L. Foldager, C. Ferris, M. Bell, F. Carter, A. Santoro, M. Crowe and K.L. Ingvartsen*
Potential for novel glycan measurements in milk as biomarker phenotypes for dairy traits

OptiMIR: Use of MIR spectra to predict multiple cow status as advisory tools for dairy farms

Developing a bovine ketosis risk indicator using spectral analysis and animal phenotype data
S. Smith, V. Hicks, R. Cooper, J. Forrest, A. McRae and E. Wall

Genetic and environmental effects on individual wavenumbers of bovine milk infrared spectra
Q. Wang, A. Hulzebosch and H. Bovenhuis

Novel milk phenotypes based on a biological model of lactation
G.E. Pollott

Prediction of sheep milk chemical composition using its pH, electrical conductivity and refraction

Representative sample selection using FT-IR milk spectra to predict dry matter intake in dairy cows
N. Shetty, P. Lavendahl, M.S. Lund and A.J. Buitenhuiss

Milk mid-infrared spectral data as a useful tool to predict feed intake in dairy cows
S.E. Wallén, T.H.E. Meuwissen, S. McParland and D.P. Berry

Going beyond current limits in defining and using milk infrared spectra based phenotypes
N. Gengler, H. Hammami and A. Lainé

Poster Session 29

Phenotypic characterization of milk processing traits predicted by mid-infrared spectroscopy
G. Visentin, M. De Marchi, A. McDermott, D.P. Berry, M. Penasa and S. McParland

Traits associated with protein composition and colour of bovine milk
A. McDermott, G. Visentin, M. De Marchi, D.P. Berry, M.A. Fenelon and S. McParland

Session 30. Adaptation of dairy and dual-purpose cattle to harsh environments (with Core-Organic projects: 2-ORG-Cows, Organic Dairy Health)

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: S. König / B. Fürst-Waltl

Theatre Session 30

Towards preventive health management in native dual-purpose cattle via novel breeding strategies
S. König

Animal-human-technology interactions: novel means of phenotyping cattle health and welfare
U. König V. Borstel

Characteristics of organic dairy farm types in seven European countries
Comparison of native and commercial dairy cattle breeds on organic farms in five European countries
A. Bieber, A. Spengler, B. Fuerst-Waltl, S. Ivemeyer, C. Simantke, C. Stricker, J. Walczak, A. Wallenbeck, C. Winckler and P. Wójcik

Genetic relationships and trait comparison between and within lines of local dual purpose cattle
M. Jaeger, K. Bruegemann and S. König

Possibilities and requirements for organic dairy breeding lines
M. Kargo, L. Hjortø and J.R. Thomassen

Preferences for Breeding Goal Traits for Danish Red and Jersey Cattle
M. Slagboom, M. Kargo, D. Edwards, A.C. Sørensen, J.R. Thomassen and L. Hjortø

Exploring the genetic background of parasite resistance in selected lines of black and white cattle

Genotype × environment interactions in dual purpose cattle in harsh environments
B. Bapst

G×E in organic and conventional production systems in Austrian Fleckvieh cattle
C. Pfeiffer, C. Fuerst, H. Schwarzenbacher and B. Fuerst-Waltl

Defining consensus desired gains for a Kenyan Holstein-Friesian breeding goal
C.M. Kariuki, J.A.M. Van Arendonk, A.K. Kahi and H. Komen

Genotype by environment interaction for activity based estrus traits in Danish Holstein
A. Ismael, E. Strandberg, B. Berglund, M. Kargo, A. Fogh and P. Løvendahl

Statistical analysis of yield milk by AMMI analysis of genotype-environment interaction
A. Hamrouni and D. M’naouer

Poster Session 30

Adaptation of Holstin Dairy Cattle to Southern Mediterranean Environmental Conditions
M. Khalifa and M. Djemali

Organic and Conventional Dairy Farmers Prefer Different Improvements in Breeding Goal Traits
M. Slagboom, M. Kargo, D. Edwards, A.C. Sørensen, J.R. Thomassen and L. Hjortø

Dairy cows for an efficient milk production based on roughage
H. Joerg, A. Wenger, C. Aebersold, A. Burren, M. Schwarzenberger and M. Huber

Preliminary study on the meat quality of Albera bulls, an endangered cattle breed from the Pyrenees
N. Panella-Riera, M. Vitale, M. Gil and M.A. Oliver

Review on environmental benefits of organic milk production
G. Pirlo
Session 31. Sustainable control of pig and poultry diseases
(with PROHEALTH)

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: I. Kyriazakis / S. Millet

Theatre Session 31

**invited**

PROHEALTH, production diseases and piglet mortality
S.A. Edwards, S. Matheson, F. Pandolfi, R. Thompson, T. Ploetz and I. Kyriazakis

Effects of gestation housing system on maternal stress, piglet maturity at birth and early survival

Relationships between sow conformation and crushing events in commercial piglet production
S.M. Matheson, G. Walling and S.A. Edwards

A framework for automatic quantification of posture state and transitions in farrowing sows
R.J. Thompson, S.M. Matheson, T. Plötz, S.A. Edwards and I. Kyriazakis

Responses to weaning in two pig lines divergently selected on residual feed intake depending on diet
H. Gilbert, J. Ruesche, N. Muller, Y. Billon, F. Robert, L. Roger and L. Montagne

Effects of weaning conditions on immune parameters of piglets
A. Buchet, C. Belloc and E. Merlot

This little piggy went to market: applications of genomics for sustainable pig health
M.F. Rothschild, F. Bertolini, J. Harding, D. Ciobanu, B. Mote and G. Plastow

Can we select for both resistance and tolerance of pigs to PRRS?

Are the consequences of coccidiosis affected by selection improved performance?
P. Sakkas, I. Oikeh, D.P. Blake and I. Kyriazakis

Effect of breeding and sex on performance and incidence of osteochondrosis in fattening pigs
M. Karhapää, H. Siljander-Rasi, T. Kortelainen and M.-L. Sevón-Aimonen

Dynamic response to weaning of two lines of pigs divergently selected on residual feed intake
N. Muller, H. Gilbert, F. Robert, L. Roger and L. Montagne

The effect of prebiotics to control artificial infection of Salmonella
R. Breitsma, D. Parfitt and B. Rouleau

Poster Session 31

Effect of feed level and source of vitamin D on bone mineralization and performance of broilers
P. Sakkas, R.M. Gous, T.R. Hill and I. Kyriazakis

An ELISA test for the diagnosis of the two most common nematodes in chickens
G. Das, M. Hennies and M. Gauly

Effects of oregano, attapulgite, benzoic acid on gut health of broiler chickens
I. Skoufos, I. Giannenas, N. Papaioannou, A. Tsinas, S. Skoufos, J. Anastasiou and A. Tzora
Chestnut tannins reduce coliform post-weaning diarrhoea in piglets
M. Girard, S. Thanner, A. Gutzwiller and G. Bee

Effect of tannin structures as antimicrobial agents against pathogenic bacteria

Efficacy of a novel efficient phytate degrading bacterial 6-phytase in weaned piglets
D. Torrallardona and P. Ader

Effect of dietary mannan-rich fractions on bacterial communities, a new approach with old data
A. Corrigan and R. Murphy

Session 32. Livestock and climate change: current knowledge and policy challenge (with WAAP)

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: R. Ripoll-Bosch

Theatre Session 32

Livestock and climate change: can we steer a path between the devil and the deep blue sea?
invited
P. Thornton

Global comparisons of migration and adaptation features in pastoralist communities
A. Jenet, N. Buono, K. Van Troos, S. Mason, S. Di Lello, R. Saavedra and M. Gomarasca

Towards the sustainable transformation of cattle value chains in Nicaragua
R. Van Der Hoek, B.K. Paul, M.A. Mena, C.A. Birnholz, M.A. Mora and A.M. Notenbaert

LCA results on a low emission farming concept in highly integrated pig and poultry production
invited
T. Kaufmann, M. Binder and C. Haasken

GHG emissions, production and economics of typical French beef and dairy farms in the horizon 2035
invited
C. Mosnier, A. Duclos, M. Lherm, B. Lelyon, J. Agabriel and A. Gac

Pasture-based livestock production in the context of climate change
invited
F.P. O’Mara

Key factors influencing the carbon footprints of Northern Ireland dairy farms
A. Aubry, S.J. Morrison, T. Yan, P. Caskie, P. Keatley and C. Ferris

Weather influences milk yield, feed intake and feed efficiency in dairy cows
invited
D.L. Hill and E. Wall

Animal health and greenhouse gas intensity: the paradox of periparturient parasitism
J.G.M. Houdijk, B.J. Tolkamp, J.A. Rooke and M.R. Hutchings

Equations to predict methane emissions in pasture-based systems
invited
S. Stergiadis, C. Zou, X. Chen, M. Allen, D. Wills and T. Yan

Development of mathematical models to predict enteric methane emission from cattle in Latin America
invited
M. Benaouda, O.A. Castelán-Ortega and M. González-Ronquillo
**Poster Session 32**

Nongenetic factors affecting methane emissions from dairy cattle
*M. Pszczola, K. Rzewuska and T. Strabel*

Ambient temperature and its effect on performance and udder health

Evaluating climate change through month of calving effect on milk yield of dairy cattle
*M. Djemali*

Use of archaeol as a proxy for methane emission in dairy cattle
*L. Sandberg, N. Krattenmacher, S. Görs, B. Kuhla, J. Tetens, C.C. Metges and G. Thaller*

The establishment of female line of alternative meat chicken for smallholder farmer’s occupation
*A. Molee, W. Molee, S. Khempaka, C. Hormta, P. Mernklatok, T. Chormai, R. Bunnom, N. Tanpol and B. Likitdejcharoj*

**Session 34. Succession planning for European livestock farmers**
*(with Ulster Farmers Union, Young Farmers Clubs of Ulster and EAAP Cub Club)*

Date: Tuesday 30 August 2016; 14:00 – 18:00
Chair: W. Aston

**Theatre Session 34**

*invited* Nurturing the livestock farmers of the future
*K. Poppe*

*invited* Farm family succession planning
*M. Lobley*

*invited* Farming at the periphery of Europe: challenges and policy opportunities for livestock farms
*J. Dwyer*

*invited* Barriers to new entrants to farming: a Northern Ireland perspective
*C. Jack, C. Miller and D. Anderson*

*invited* Access to land and land mobility
*A. Jagoe*

*invited* Improving the connectivity between young farmers and young scientists
*S. Finan*

Succession at a Northern Ireland level
*B. Bell*
Session 35. Advances in genomic selection

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: H. Mulder

Theatre Session 35

Multi-breed genomic evaluations for 1 million beef cattle in Ireland
A.R. Cromie, R. Evans, J.F. Kearney, M. McClure, J. McCarthy and D.P. Berry

APY inverse of genomic relationship matrix: theory, analyses and questions
I. Misztal, I. Pocrnic, D. Lourenco and Y. Masuda

Single-step genomic evaluation with many more genotyped animals
E.A. Mäntysaari and I. Strandén

Test-Day single-step genomic evaluation using APY algorithm
M. Koivula, I. Strandén, G.P. Aamand and E.A. Mäntysaari

Efficient computations for single-step genomic evaluation
I. Strandén, K. Matilainen, G.P. Aamand and E.A. Mäntysaari

Dimensionality of genomic information and APY inverse of the genomic relationship matrix
I. Pocrnic, I. Misztal, D.A.L. Lourenco, Y. Masuda and A. Legarra

‘Gene dropping A’: Avoiding classical computations of the numerator relationship matrix in genomics
C. Edel, E.C.G. Pimentel, R. Emmerling and K.U. Götz

Single-step SNP-BLUP with on-the-fly imputed genotypes and residual polygenic effects
M. Taskinen, E.A. Mäntysaari and I. Strandén

Single-step GBLUP using APY inverse for protein yield in US Holstein
Y. Masuda, I. Misztal and T.J. Lawlor

Single step Marker Assisted Selection in breeding value estimation: do markers add value?
B. Zumbach, M.S. Lopes, S. Wijga, R. Bergsma and E.F. Knol

Single-step genomic evaluation for fertility in Nordic Red dairy cattle
K. Matilainen, I. Strandén, G.P. Aamand and E.A. Mäntysaari

Identification of key contributors to increase phasing accuracy in complex population structures
M. Neuditschko, H.W. Raadsma, M.S. Khatkar, E. Jonas, E.J. Steinig, C. Flury, H. Signer-Hasler,
M. Frischknecht, R. Von Niedrhäusern, T. Leeb and S. Rieder

Multi-varietal genomic selection in French pig populations
C. Carillier-Jacquin, L. Tussel, J. Riquet, M.J. Mercat and C. Larzul

Poster Session 35

Justification for setting individual animal genotype call rate threshold at 85%
D.C. Purfield, M. McClure and D.P. Berry

Detection of pig genome regions determining performance traits
A. Borowska, H. Reyer, K. Wimmers, P.F. Varley and T. Szwaczkowski

Characteristics of haplotypes in a multi-breed dairy and beef cattle population
T.R. Carthy, D.C. Purfield, M. McClure and D.P. Berry

SNP clustering associated with performance traits in chicken: entropy analysis
M. Graczyk, H. Reyer, K. Wimmers, R. Hawken and T. Szwaczkowski

A genome-wide association study using CNVs for production traits in Brown Swiss dairy cattle
R.T.M.M. Prinsen, M.G. Strillacci, F. Schiavini, A. Rossoni, B. Gredler, M.A. Dolezal, A. Bagnato and A. Bieber

Analysis of FSHB gene polymorphism in Polish Landrace and Polish Large White × Polish Landrace sows
D. Polasik, M. Kumalska, Y. Sawaragi, G. Žak, M. Tyra, P. Urbański and A. Terman

Genotyping-by-sequencing application to different livestock species
A. Gurgul, A. Miksza-Cybulska, I. Jasielczuk, T. Szmatola and M. Bugno-Poniewierska

Extent of linkage disequilibrium and haplotype block structure in Limousine and Simmental cattle
I. Jasielczuk, A. Gurgul, T. Szmatola, T. Ząbek and M. Bugno-Poniewierska

Effect of QTL number and minor allele frequency, and marker density on genomic evaluation
E. Karaman and M.Z. Firat

Session 36. Breeding and management aspects of diseases and welfare related traits (with ICAR) part 1

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: B. Fürst-Waltl / M. Burke

Theatre Session 36

Invited
Hoof health and housing conditions: a never ending story?!
A. Fiedler, C. Kroeger and K. Schindhelm

Invited
ICAR Claw Health Atla: one year of implementation
N. Charfeddine, G. Thomas, A. Fiedler, K.E. Müller, K.F. Stock, A. Steiner, A.M. Christen, V. Daniels, P. Nielsen, D. Döpfer, B. Heringstad, C. Egger-Danner, J. Pryce and J. Kofler

The impact of claw health and lameness on fertility in Austrian dairy herds
J. Burgstaller, S. Guggenbichler, B. Fuerst-Waltl, F. Steininger, J. Kofler and C. Egger-Danner

Linear type traits show pronounced phenotypic relationships to foot and claw health
B. Fuerst-Waltl, C. Fuerst and C. Egger-Danner

Genetic parameters for hoof disorders in dairy cattle

Invited
Breeding for healthier livestock
C. Maltecca, J. Howard and F. Tiezzi

Use of somatic cell count patterns for selection against mastitis
J.J. Vosman, G. De Jong and H. Eding

Selection for disease resistance in Canadian dairy cattle

Postpartum diseases, health and fertility traits in Norwegian Red crosses and Holstein in Israel
E. Rinell and B. Heringstad
Poster Session 36

Genetic variation of seasonal tick counts in South African Nguni cattle
N.O. Mapholi, A. Maiwashe, C.B. Banga, O. Matika, V. Riggio, M.D. Macneil and K. Dzama
Preliminary results from a largescale lameness study in Irish dairy herds
N. Byrne, S. Ring, A. Twomey, E. O'Brien, D. Berry and R. Sayers
Inter and intra-observer reliability of different methods for recording temperament in cattle
Genetic relationship between clinical mastitis, somatic cell score and milk in Czech Holstein
L. Zavadilová, J. Bauer, L. Krpilková, Z. Krupová, M. Michaličková and M. Štípková
Comparative study on fitness related traits in Fleckvieh and Brown Swiss cattle breeds
Relationship between dairy herd performance and exposure to bovine herpesvirus-1
R.G. Sayers
A survey of miscarriage causes in dairy herds in Poland
E. Bauer, J. Žychlińska-Buczek and K. Merda
An All-Ireland study of sero-prevalence for reproductively important diseases on beef cow herds
M.H. Parr, F. Randi, D. Barrett, M.G. Diskin and D. Kenny
Genetic relationship between type traits and number of lactations in Czech Fleckvieh cows
L. Novotný, L. Zavadilová and J. Bauer
The influence of pricing systems on the economic value of traits in dual-purpose cattle
M. Michaličková, Z. Krupová, E. Krupa, L. Zavadilová and J. Bujko

Session 37. Healthy livestock products for healthy humans (with Devenish)

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: N. Scollan

Theatre Session 37

invited Livestock nutritionists or human health professionals?
P.G. Wall

invited Omega chicken: a case study
H. Hayes, J. Coleman and U. Lavery

invited Consumption of omega 3 enriched chicken and cardiovascular benefits in humans
A.V. Stanton

invited Long-chain omega-3 polyunsaturated fatty acids and cognitive performance
J.K. Virtanen

The effect of selenium enriched silage on the selenium status of finishing lambs and their products

Vitamin D3 and 25-hydroxyvitamin D supplementation in laying hen diets, on egg vitamin D content
S.K. Duffy, G. Rajauria, P.O. McAlpine, K.D. Cashman and J.V. O'Doherty
Transcriptional regulation of lipid metabolism in transition dairy goats by fish oil and stearate
G. Farina, G. Invernizzi, J.M. Caputo, A. Agazzi, V. Dell’Orto, J.J. Loor and G. Savoini

Vitamin D3 supplementation in heifers, on blood serum 25-OH-D3 and beef vitamin D3 concentration
S.K. Duffy, J.V. O’Doherty, K.D. Cashman and A.K. Kelly

The effect of insect meal on egg fatty acid profile
E. Chatzidimitriou, V. Maurer, F. Leiber, M. Baranski, S. Stergiadis and G. Butler

In vitro antioxidant, ACE-inhibitory and citomodulatory properties of whey and casein proteins
C. Giromini, A.A. Fekete, J.A. Lovegrove, D.I. Givens, R. Rerucci and A. Baldi

**Poster Session 37**

Health beneficial omega-3 fatty acids levels in lambs of dairy breeds raised in Slovakia
M. Margetin, M. Oravcová, O. Debrecén, L. Luptáková and J. Tomka

Producing lower saturated fat dairy products by changing the dairy cow diet: the RESET study

**Session 38. Small ruminant mortality: Seeking solutions - genetic and environmental factors that contribute to improved survival**

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: C.M. Dwyer / J.M. Gautier

**Theatre Session 38**

**invited** Genetic approaches to improving lamb survival under extensive field conditions
F.D. Brien and M. Young

Small ruminant neonatal mortality: What are the important phenotypes?
C.M. Dwyer

Genetic parameters for lamb survival
A. McLaren, S. Mucha, K. Kaseja, K. Moore and J. Conitngton

Genetic determinism of maternal behaviour in sheep and relationship with lamb mortality
D. Hazard, A. Kempeneers, D. Foulquié, F. Carriere, E. Delval and A. Boissy

Survival rates and growing performance of lambs born from Assisted Reproductive Technologies
E. Emsen, M. Kutluca Korkmaz, B. Odevci and H. Demirezer

An on-farm experiment to assess new phenotypes: how to involve farmers?
A. Cheype, F. Tortureau and J.M. Gautier

Ease of data collection on farm; reality or myth
H. Davies and T. Canning

Panel discussion on how improving data quality related to Small ruminant mortality
C.M. Dwyer and J.M. Gautier
**Poster Session 38**

Definition of a total merit index in Austrian dairy sheep and goats  
*B. Fuerst-Waltl and C. Fuerst*  
Lamb serum IgG concentration is reduced when lambs are fed using a stomach tube compared to suckling  
*T.M. Boland, F.P. Campion and F.M. McGovern*  
The influence of ram on number of born and weaned lambs in Suffolk  
*J. Schmidova, M. Milerski, A. Svitakova, H. Vostra Vydrova and L. Vostry*  
Impact of early weaning on growth performance and small intestine development in lambs  
*S. McCoard, N. Hennes, F. Knol, O. Cristobal-Carballo, A. Khan and D. Stevens*  
Impact of early weaning on rumen development and fermentation profiles in artificially-reared lambs  
*O. Cristobal-Carballo, F.W. Knol, S. Muetzel, M.A. Khan, D. Stevens and S.A. McCoard*  
Pre-lambing metabolic profile of twin-bearing ewes in a hill environment  
*P. Zhou, N.R. Lambe, C.R. Morgan-Davies, N.D. Sargison and T.G. McEvoy*

**Session 39. Longevity: a physiological and management perspective**

Date: Wednesday 31 August 2016; 08:30 – 12:30  
Chair: R.M. Bruckmaier / M. Vestergaard

**Theatre Session 39**

*invited* Potential new indicators predicting longer productive lives in dairy cows  
*K. Huber*  
*invited* Extended lactation in dairy cows  
*J. Sehested, C. Gaillard, T. Kristensen, J.O. Lehmann, L. Mogensen, G.M. Maciel and M. Vestergaard*  
Production, health and welfare characteristics of cows selected for extended lactation  
*J.O. Lehmann, L. Mogensen and T. Kristensen*  
*invited* Customising dry period length: consequences for energy balance and yield over multiple lactations  
*A.T.M. Van Knegsel, A. Kok, R. Van Hoeij, J. Chen, N. Mayasari and B. Kemp*  
Dry period plane of energy: effects on glucose tolerance in peripartum dairy cows  
*S. Mann, F. Leal Yepes, T. Overton, J. Wakshlag, B. Cummings and D. Nydam*  
The effects of offering concentrates during the dry period on dairy cow performance  
*R.A. Law, M. Romero Oiartzun, A. Brown, A. Gordon, A.F. Carson and C.P. Ferris*  
*invited* A novel method to prevent hypocalcemia: Can we improve cow health and longevity in the herd?  
*L.L. Hernandez*  
How longevity drives greenhouse gas emissions of milk produced by dairy cows in two feeding regimes  
*F. Grandl, S. Peter, M. Kreuzer and M. Zehetmeier*  
*invited* Once recorded metabolic adaptation does not allow to predict longevity in dairy cows  
*J.J. Gross, L. Grossen-Rösti, F. Schmitz-Hsu and R.M. Bruckmaier*
Poster presentations: longevity: a physiological and management perspective
R.M. Bruckmaier and M. Vestergaard

Impact of litter size in first parity on sow lifetime performance and health
E. Andersson, J. Frössling, B. Algers, L. Engblom and S. Gunnarsson

Poster Session 39

Polish Simmentals: early predictors of longevity
M. Morek-Kopec, W. Jagusiak and A. Zarnecki

Genetic relationships between age at first calving, its underlying traits and survival of Holsteins
J. Heise, K.F. Stock, F. Reinhardt and H. Simianer

Simulations to define the optimum lifetime management for Holstein cows
C. Gaillard, H.N. Phuong, P. Blavy and J. Sehested

Genetic correlations between energy balance and lactation persistency of Holsteins in Japan
A. Nishiura, O. Sasaki, M. Aihara and H. Takeda

Voluntarily delayed rebreeding and double insemination effects on pregnancy rates of Holstein cows
C. Gaillard, M. Vestergaard and J. Sehested

Herd dynamics and economics of different strategies for managing a herd for extended lactation
J.O. Lehmann, L. Mogensen, S. Østergaard, J.F. Ettema and T. Kristensen

Influence of the first lactation on the productive life of Holstein cows
M. Grayaa, H. Hammami, C. Hanzen, B. Rekik, A. Gillon and N. Gengler

Lost in transition: a reaction norm model to breed cows that can better cope with metabolic stress

Good legs means good stayability of the sows
T.H. Le, E. Norberg, B. Nielsen, P. Madsen, K. Nilsson and N. Lundeheim

Session 40. The role of feed evaluation systems in feeding our livestock tomorrow

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: J. Van Milgen

Theatre Session 40

Novel NIR predictions of the nutritive value of cereal and protein meals across animal species
S. Parker-Norman and H. Graham

INRA Feed Unit System for Ruminants: a new ‘Red Book’
P. Nozière, J.L. Peyraud and D. Sauvant

Comparative prediction of digestive interactions dairy cows
D. Sauvant, J.B. Daniel and P. Nozière

Evaluation of structural effectiveness of diets for dairy cows: an on farm comparison of systems
A. Behrendt, D. Albers, A.R. Sharifi and J. Hummel
Conceptual model of digestion for pigs and poultry and its factors of variation
S. Roger, A. Narcy, J. Van Milgen, M.J. Duclos and E. Recoules

Session 41. Multifunctionality of grassland-based livestock farming systems

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: M. Tichit

Theatre Session 41

Developing win-win outcomes across a range of grassland-based livestock farming systems
invited

Multi-indicators approach for the evaluation of efficiency of mountain dairy farms
M. Berton, E. Sturaro, M. Ramanzin and G. Bittante

Including trees in pasture-based pig systems to improve animal welfare and eco-efficiency
M. Jakobsen and A.G. Kongsted

Silvopature is a sustainable intensification option in grassland production systems
J.H. McAdam

Grassland intensification and inevitable tradeoffs between multiple ecosystem services
D.A. Fornara, E.A. Wasson, C.J. Watson and R. Carolan

Multifunctionality of extensive mountain livestock farming systems
A. Gibon and G. Balent

Research priorities for modelling livestock and grassland systems in Europe under climate change
R.P. Kipling, A. Bannink, J.C. Van Middelkoop and N.D. Scollan

The effect of stocking rate and prolificacy on profitability of an Irish lowland sheep enterprise
A. Bohan, L. Shalloo, P. Creighton, E. Earl, T.M. Boland and N. McHugh

Combined modelling tools to evaluate the impact of flock mobility on ghg emissions in sheep farms
M. Benoit, J. Lasseur, A. Vigan, F. Mouillot, M. Eugène, L. Mansard, M. Vigne, P. Lecomte and C. Dutilly

Linking deforestation-pasture restoration in Brazil’s Intended Nationally Determined Contributions
R. Silva, L.G. Barioni and D. Moran

Grassland production systems: combing animal species and crossbreeding to strengthen sustainability?
P. Veysset, S. Prache, K. Vazeille and P. Dhour

Tropical grasslands: a pivotal place for a more multi-functional agriculture
M. Boval, V. Angeon and T. Rudel

Poster Session 41

Increased foraging in outdoor organic pig production: modeling environmental consequences
M. Jakobsen, T. Preda, A.G. Kongsted and J.E. Hermansen

A mixed-method study on the perception and evaluation of pictures from pig fattening barns
G. Busch, S.A. Gauly and A. Spiller
The effect of flock size and ewe type on flock management and performance of Irish sheep farms
A. Bohan, L. Shalloo, P. Creighton, T.M. Boland and N. McHugh

Development of e-learning resources by/for users: a win-win project for teachers and students

Shaping the Swedish landscape: a future for the Gotland russ

Session 42. Application of science to improve the management of stable horses

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: S.J. Wood

Theatre Session 42

Control of equine diseases
invited
T. Buckley

Effect of steaming/watering of large hay square bales on particulate matter generation
G. Claussen and E.F. Hessel

Airborne fungi measurements in bedding hygiene quality assessment
S. Airaksinen, A. Salmela and M.-L. Heiskanen

Effect of bedding material on air quality of indoor horse stables
A.S. Santos, C. Bonaldi, S. Silva, L.M. Ferreira and H. Trindade

Lying behaviour of group-housed horses
E. Mulser, A. Zollinger, C. Wyss and I. Bachmann

Efficacy of the repellent DEET against tabanid flies on horses evaluated in a field test
C. Herholz, C. Kopp, M. Wenger, A. Mathis, S. Wägeli, F. Kägi and N. Roth

Habitation effects to frequent road transport in sport horses
A. Vogt and W. McCormick

Improving equine management by new technologies: drivers and barriers
S. Wägeli, R. Stirnimann, E. Mulser and C. Herholz

Effect of bedding material on composting temperature of horse manure
A.S. Santos, C. Bonaldi, S. Silva, L.M. Ferreira and H. Trindade

Economical assessments of the saddle horse industry in Europe: what tools for common data?
G. Bigot, C. Vial, X. Dornier, Y. Surry and H. Andersson

Poster Session 42

Tackling the itch: GWAS on insect bite hypersensitivity using IgE levels in two horse populations
Session 43. Design livestock systems to meet health and welfare needs of farm animals

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: V. Ferrante

Theatre Session 43

Importance of the design of lying area and optimal barn climate for dairy cattle
F.J.C.M. Van Eerdenburg

Does herd size affect animal welfare in dairy cattle?
D. Gieseke, C. Lambertz and M. Gauly

The impact of husbandry conditions on claw health in Austrian dairy herds
J. Burgstaller, D. Feiersinger, B. Fuerst-Waltl, F. Steininger, J. Kofler and C. Egger-Danner

The effect of floor type on the performance of growing dairy origin bulls
V.S. Murphy, D.E. Lowe and F.O. Lively

Perch design preferences of commercial broiler chickens reared in windowed houses
C.L. Bailie and N.E. O’Connell

Field evaluation of two additional water sources regarding health and welfare aspects in Pekin ducks
L. Klambeck, F. Kaufmann, J.D. Kämmerling, N. Kemper and R. Andersson

Commercial comparison of potential dustbathing substrates for intensively farmed broilers
M. Baxter and N.E. O’Connell

Assessing the efficacy of improved animal welfare to control Campylobacter contamination in poultry

Is tail biting in growing pigs reduced by a prolonged suckling period?
A.F. Naya, C. Veit, I. Traulsen, O. Burfeind and J. Krieter

Production of undocked pigs, a survey of farmers’ experiences
T. Wallgren, R. Westin and S. Gunnarsson

Behaviour and performance of suckling gilts and their piglets in loose single housing
R. Wassmuth, C. Biestmann and H. Janssen

Poster Session 43

Effect of overstocking during the dry period on the behaviour and welfare of dairy cows
M. Fujiwara, H.M. Ensor, M.J. Haskell, A.I. Macrae and K.M.D. Rutherford

Comparison of cows’ and heifers’ stress in different automated and manual milking parlours
S. Limberg and U. König V. Borstel

Improving egg production by using split-phase lighting program
H. Al-Khalaifa and A. Al-Nasser

Effect of welfare housing systems and bedding on performance of laying hen in Korea during summer
Fine dust particles concentration increase during feeding time in a pig barn
A. Costa, F.M. Tangorra, A. Agazzi, G. Savoini and M. Lazzari

The effect of birth-weight segregation during the growing period on swine productive features
M. Vázquez-Gómez, C. García-Contreras, S. Astiz, A. González-Buines, C. Óvilo and B. Isabel

Improving horse welfare at transport: definition of good practices through a Delphi procedure
S. Messori, W. Ouweltjes, K. Visser, P. Dalla Villa, H. Spoolder and W. Baltussen

Session 44. Cattle feeding practices and efficiency

Date: Wednesday 31 August 2016; 08:30 – 12:30
Chair: V. Cabrera / M. Klopcic

Theatre Session 44

Performance of dairy cows offered silages produced from grass swards or red clover/grass swards
D.J. Johnston, A.J. Dale and C.P. Ferris

Rumen temperature monitoring to assess feed efficiency of dairy cows
A. Fischer and P. Faverdin

Is PUFA transfer from grass to milk different during grazing compared with indoor feeding?
A. Elgersma

The effect of supplementing two levels of rumen buffer on rumen and milk parameters in dairy cows
P.S.J. Van Adrichem, P.A. Abrahamse and G.F. Schroeder

Novel selection criteria for rumen microbial genes to improve feed efficiency and methane mitigation

Isolation and characterization of nutritionally important lactic acid bacteria from cattle gut
S. Ghazanfar, M. Qubita, F. Hassan, A. Muhammad, I. Ahmed and I. Muhammad

Impact of nutritional grouping on the economics of dairy production efficiency
V.E. Cabrera

Effect of preweaning plane of nutrition on body size and age at puberty in dairy calves
A. Mendoza, S. De Trinidad, C. Viñoles, C. Cajarville, T. Morales, M. Pla, D. Ubilla, J. Soutto and E. Garófalo

Relationship between methane emission, residual feed intake and carcass traits of beef cattle

Finishing strategies for dairy bulls slaughtered at 15 months of age
B. Murphy, A.K. Kelly and R. Prendiville

Effects of dietary nitrate and increased lipid concentration on the performance of finishing steers

In vitro degradability of selected Nigerian forages for their use in ruminant diets
O.J. Bolaji, A.S. Chaudhry and J. Dolfing

Identification of Genetic Markers Associated with Feeding Efficiency in Holstein fattening Calves
M. Cohen-Zinder, A. Asher, E. Lipkin, R. Agmon, A. Brosh and A. Shabtay
**Poster Session 44**

Minerals in forage for dairy cows
*B. Johansson and M. Åkerlind*

Effect of new sustained-release non-protein nitrogen on performance of dairy cows
*J. Roquet, M. Agovino and H. Warren*

Continuous measurement of pH in rumen of dairy cows fed with three total mix ratios
*R. Loucka, P. Homolka, F. Jancik, P. Kubelkova, Y. Tyrolova, A. Vyborna and M. Michalickova*

Use of dietary cation-anion difference (DCAD) in formulating dry cow rations
*M. Agovino, P. Colturato and H. Warren*

Effect of dietary cation–anion differences on rumen fermentation, digestibility and milk production
*S. El-Mashed and H. Moussa*

Carcass traits of Nelore steers in different Brazil grazing systems

**Session 45. Free communications in genetics; genetic diversity and disease genetics**

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: J. Fernandez Martin

**Theatre Session 45**

The important and often forgotten role of managing genetic diversity
*invited C. Maltecca, J. Howard and F. Tiezzi*

What do we mean by runs of homozygosity? Assessing effect of parameters involved in their detection
*S.T. Rodríguez-Ramilo and J. Fernández*

Predicting autozygosity via runs of homozygosity from NGS versus SNP chip data for Nellore bulls

Inbreeding depression for semen quality traits in cattle: estimation and dissection
*M. Ferencaković, I. Curik, M. Kaps and J. Sölkner*

Using runs of homozygosity to locate a new recessive mutation in a rare breed of cattle
*G.E. Pollott and D.C. Wathes*

Investigating Runs of Homozygosity using Whole-Genome Sequence Data in Holstein Bulls
*N. Melzer, M. Sargolzaei and C. Baes*

Optimum contribution selection for populations with introgression from other breeds
*R. Wellmann and J. Bennewitz*

The domestication history of sheep and goat
*P. Orozco-Terwengel, F. Alberto, I. Streeter, M. Bruford and Nextgen Consortium*

Creation of sheep divergent lines for gastro-intestinal parasitism resistance based on a QTL index
*C.R. Moreno, S. Aguerre, F. Bouvier, A. Blanchard, C. Koch, J. Cortet, P. Jacquiet and G. Sallé*
Mapping genomic regions associated with resistance to infectious diseases in Ethiopian chicken

Functional SNP in a polygenic disease induced by high-altitude in fattening Angus steers

Genetic parameters for health traits in a multi-breed sheep population
A.C. O’Brien, N. McHugh, E. Wall, T. Pabiou, K. McDermott, S. Randles, S. Fair and D.P. Berry

Variation in the prion protein in Dutch goats for selective breeding to eradicate Scrapie

Posters Session 45

Estimation of inbreeding based on runs of homozygosity in Finnish Ayrshire population
K. Martikainen and P. Uimari

Analysis of runs of homozygosity and genomic inbreeding in bulls of nine Swiss cattle breeds

Patterns of runs of homozygosity in four cattle breeds maintained in Poland
T. Szmatoła, A. Gurgul, K. Ropka-Molik, I. Jasicielczuk, T. Ząbek and M. Bugno-Poniewierska

Integration of genetics with Zooarchaeology; Challenges of the MendTheGap

Do seven South African cattle breeds differ genetically?
L. Pienaar-Van Der Westhuizen, M. Scholtz, F. Nesar and M. Macneil

Refining cattle breed proportion using genomic data
T.R. Carthy, R.D. Evans and D.P. Berry

Genomic characterisation of Pinzgau cattle based on high-throughput molecular information

Genetic and molecular characterization of native goat flock of INRA-Tunisia
S. Bedhiaf-Romdhani, Y. Ressaissi, A. Biao, M. Amills and M. Ben Hamouda

Genetic diversity of three local chicken breeds using high-density SNP-data
S. Gfeller, S. Joller, A. Burren, M. Neuditschko, C. Flury, C. Drögemüller, E. Kump, P. Ammann and A. Spiri

Search of selection signatures between fine wool and coarse wool sheep breeds

Genetic structure of different Italian and Mexican chicken populations
M.G. Strillacci, E. Gorla, F. Schiavini, M.C. Cozzi, S.I. Roman-Ponce, F.J. Ruiz-Lopez, R.T.M.M. Prinsen, V.E. Vega-Murillo, S. Cerolini and A. Bagnato

The effect of Pinzgauer admixture on the coat colour of Cika cattle
M. Simčič, G. Mlakar, D. Bojkovski and D. Kompan
Genetic relationships across different strata of data according to genomic herd descriptors
S. König and T. Yin

Between breed variation in resistance to H. contortus in three indigenous goat breeds in Uganda
R.B. Onzima, R. Mukibi, B.K. Katali, J.A.M. Van Arendonk, E. Kanis and H. Komen

The bovine genome-wide array as a source of novel SNPs in Red deer
R. Kasarda, N. Moravčíková, A. Trakovická and O. Kadlečík

Selecting on fat and protein content instead of milk yield would not improve dairy cows’ fertility
N. Bedere, C. Disenhaus, V. Ducrocq, S. Leurent-Colette and L. Delaby

Impacts of parentage identification in the genetic evaluation of Nellore animals in a selection herd
L.R. Silva, J.P. Eler, E.C. Mattos and J.B.S. Ferraz

Identification of reproductive trait loci by GWAS of Large White pigs from three breeding population

Defining a breeding objective for Nile tilapia for Kenyan smallholder production system
S.K. Omasaki, J.A.M. Van Arendonk, A.K. Kahi and H. Komen

Genetic parameters for susceptibility to bovine herpesvirus-1 in dairy cattle

Egg physicochemical and fatty acids composition of Portuguese autochthonous chicken breeds
M.L. Soares, J.C. Lopes, G. Thompson and J. Carvalheira

Session 46. Breeding and management aspects of diseases and welfare related traits (with ICAR) part 2

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: B. Fürst-Waltl / M. Burke

Theatre Session 46

Providing dairy cow facilities to improve health, welfare, and productive life
T.J. Devries, M.A.G. Von Keyserlingk and D.M. Weary

Timing, costs and incidences of recorded health events on NZ dairy farms
P.R. Amer, J.I. Kerslake, N.A. Dennis, J.R. Roche and C.V.C. Phyn

Investigating the use of Mid Infrared spectral data to predict dairy cow cellular immune traits
S.J. Denholm, S.L. Smith, T.N. McNeilly, V. Hicks and E. Wall

The French observatory on genetic defect: an assessment after 15 years of operation
C. Danchin, C. Grohs and the Onab Steering Committee

A stochastic model to investigate effects of management on calves exposed to Ostertagia ostertagi

Genetic parameters for welfare and disease indicator traits generated in automatic milking systems
L. Santos, K. Brügemann and S. König

Impact of the Friesian POLLED mutation on milk production traits in Holstein Friesian
L. Gehrke, D. Seichter, I. Ruß, I. Medugorac, J. Tetens and G. Thaller
Genetic parameters for F. heptacia in Irish cattle

Estimating heritabilities for fertility disorders using on-farm recorded health data
V. Müller, K.F. Stock, R. Schafberg and H.H. Swalve

Genetic correlations of fighting ability with udder health and longevity in Valdostana cattle
C. Sartori, N. Guzzo and R. Mantovani

Correlations between health and performance traits in Vorderwaelder and Fleckvieh cattle
H. Hamann, S. Gehring and P. Herold

Pleiotropic effects in functional traits in cattle
G. Mészáros, R. Taferner and J. Sölkner

Session 47. Meat quality; the role of vertical integration (with Dunbia)

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: T. O’Neill

Theatre Session 47

invited Producing and marketing quality beef: a meat science perspective
C.R. Calkins

invited Supply chain integration; the key to delivering a consistently good product
R. Law

invited Benefits of an integrated supply chain to the farmer
M. Jones

Session 48. Towards 5 ton of pork per sow per year

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: E.F. Knol / G. Bee

Theatre Session 48

Developing a 5 tonne sow: Biologically Possible or Commercially Probable?
G.A. Walling and E.F. Knol

L-arginine and L-carnitine in gestating sow diets to optimise output and piglet growth
K. Reid, K. O’Driscoll, E. Magowan, J. O’Doherty and P.G. Lawlor

Improving performance of small pigs post weaning using nurse sows or starter nutrition
A. Craig and E. Magowan

Cross fostering affects the performance of both small and heavy piglets throughout production
A.M.S. Huting, I. Wellock and I. Kyriazakis

Quantifying the relation between reproduction and finishing traits
R.H. Vogelzang, E.F. Knol and L.L. Janss

Modelling fattening pig production systems: use of a dynamic, stochastic, mechanistic model
A. Cadéro, A. Aubry, L. Brossard, J.Y. Dourmad, Y. Salaün and F. Garcia-Launay
Fat and protein accretion in grower-finisher pigs fed two protein levels  
I. Ruiz-Ascacibar, P. Stoll and G. Bee  
Page 441

Phase feeding groups of pigs representing high or low weight variation  
E. Magowan, J. Keenan and V.E. Beattie  
Page 442

The effect of sex and slaughter weight on carcass quality in pigs  
A. Van Den Broeke, F. Leen, M. Aluwé, J. Van Meensel and S. Millet  
Page 442

Performance curves for growing finishing pigs: evaluation of published growth models  
F. Leen, A. Van Den Broeke, M. Aluwé, B. Ampe, L. Lauwers, J. Van Meensel and S. Millet  
Page 443

Calculation of economic values for new traits in Norwegian Landrace; lean meat and fat efficiency  
K.H. Martinsen, D. Olsen, J. Ødegård and T.H.E. Meuwissen  
Page 443

Evolution of attitudes towards estimated breeding values in Flemish pig farmers  
S. Palmans, M. Van Der Voort, S. Millet, S. Janssens, N. Buys and J. Van Meensel  
Page 444

Poster Session 48

EWPIG: a program to calculate economic weights of traits in pigs  
Z. Krupová, E. Krupa, M. Wolfová, J. Wolf and E. Žáková  
Page 444

Length of productive life in Czech Large White and Czech Landrace sows  
E. Žáková, E. Krupa and Z. Krupová  
Page 445

Study of lifetime performance in three pig breeds on a Hungarian commercial farm  
Á. Bagi-Hunyadi, S.Z. Kusza and P. Balogh  
Page 445

Digestible energy intake during gestation and associated sow reproductive performance  
A. Lavery, P.G. Lawlor, H.M. Miller, K. O'Driscoll, D.P. Berry and E. Magowan  
Page 446

Session 49. Beef and dairy products, quality, human health, substitutes, debate (with ADSA)

Date: Wednesday 31 August 2016; 14:00 – 18:00  
Chair: A. Kuipers / J.F. Hocquette  

Theatre Session 49

Invited  
Relating beef production at farm level to human health, and the state of art of meat substitutes  
J.F. Hocquette, D. Gruffat and D. Durand  
Page 446

Invited  
Milk, milk fat and human health: can we alter milk composition on farm, do we want/need to alter it?  
A.L. Lock and D.E. Bauman  
Page 447

Invited  
Nutrition & health claims for beef, lamb and pork  
M. Strong  
Page 447

Invited  
Dairy and meat product consumption and cancer risk  
E. Kampman  
Page 448

Debate - relation between beef and dairy products and human health  
Page 448
Session 50. Genetics of feed efficiency and methane emissions

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: E. Wall

Theatre Session 50

Genetic and genomic analyses of enteric methane emissions of dairy cattle
Y. De Haas, J.E. Pryce, E. Wall, S. McParland, G. Difford and J. Lassen

Feed efficiency and methane emissions in dairy cattle: overview of the current data recording
A. Butty, A. Wilson, V. Osborne, C. Baes and F. Miglior

An international initiative to decrease the environmental footprint of dairy cattle using genomics

Genome-wide association study and genomic prediction for methane emission in Danish Holstein cattle
J. Lassen, P. Løvendahl, G. Su and G. Sahana

Genome wide association study (GWAS) of methane emissions in Australian Angus

Breeding for feed efficiency does not decrease methane production in growing lambs
G. Rose, B. Paganoni and A.N. Thompson

Heterogeneity in genetic variation for feed intake and adjusted feed intake between dairy cow breeds
B. Li, B. Berglund, W.F. Fikse, J. Lassen and P. Løvendahl

Transcriptomics of feed efficiency in Nordic dairy cattle

Dissecting purebred-crossbred interaction for feed intake in pigs: feed ingredients
R. Bergsma, R.M. Godinho and C.A. Sevillano

Partitioning genetic variance of metabolizable energy efficiency in dairy cows
T. Mehtio, E. Negussie, P. Mäntysaari, E.A. Mäntysaari and M.H. Lidauer

Live weight prediction and genetic parameter estimation using type traits for Italian Holstein cows
R. Finocchiaro, J.B.C.H.M. Van Kaam, M. Marusi, A. Varotto and M. Cassandro

Gompertz model improves breeding value prediction for feed conversion ratio for incomplete weights
V.H. Tran-Huynh, H. Gilbert and I. David

Session 51. Animal nutrition contributing to reduced environmental impact

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: S. Decampeneere

Theatre Session 51

Environmental impact of feed optimization: alternative protein sources in pig diets
H.H.E. Van Zanten, P. Bikker, B. Meerburg and I.J.M. De Boer

A diet formulation tool designed to reduce the environmental impact of pig production systems
S.G. Mackenzie, I. Leinonen, N. Ferguson and I. Kyriazakis
Economic and environmental optimization of feed sequence plans in pig fattening unit  
F. Garcia-Launay, L. Brossard, T. Plantevin and J.Y. Dourmad

The effect of nutrition on environmental impacts of pig production depends on production context  
A.N.T.R. Monteiro, F. Garcia-Launay, L. Brossard, A. Wilfart and J.Y. Dourmad

Greenhouse gas emissions from alternative calf to beef production systems  
P. Crosson, B. Murphy and R. Prendiville

Effect of tannins from Birdsfoot trefoil and dietary protein level on nitrogen turnover of lambs  
E. Seoni, G. Battacone, M. Corpataux, Y. Arrigo, F. Dohme-Meier and G. Bee

Effects of breed and concentrate supplementation on nitrogen utilisation in ewes fed fresh grass  
Y.G. Zhao, A. Aubry, N.E. O’Connell and T. Yan

Treatment with lactic acid of concentrates alleviates the lack of inorganic P in dairy cow diets  
Q. Zebeli, A. Khol-Parisini, E. Humer, H. Harder and E. Mickdam

Effect of pure extracts on in vitro CH$_4$ production using rumen fluid of cows fed the same extracts  
G. Rossi, L. Maccarana, V.A. Vieira, M. Cattani, F. Tagliapietra, S. Schiavon and L. Bailoni

Methane mitigation in dairy cattle with 3-NOP in an on-farm trial  
D. Van Wesemael, N. Peiren, L. Vandaele, V. Fievez, S. Duval and S. De Campeneere

Effect of linseed plus nitrate on methane emission in bulls, animal health and residues in offal  
M. Doreau, M. Arbre, Y. Rochette, C. Lascoux and C. Martin

Effects of dietary nitrate and increased lipid on methane emissions from beef cattle are independent  

How does nutrient intake affect methane emission from slurry in pigs?  
W. Antezana, S. Calvet, P. Ferrer, P. Garcia-Rebollar, C. De Blas and A. Cerisuelo

Isotopic natural abundance as biomarkers of between-animal variation in feed efficiency in ruminants  

**Poster Session 51**

Ensiling forage soybean with or without bacterial inoculants on nitrogen and energy retention  
B.D. Nkosi and A. Van Niekerk

Nitrogen-use-efficiency of beef cows fed total mixed ration, grass silage or grazed on pasture  
H. Scholz and G. Heckenberger

Methanogenesis of a native pasture combined with three protein supplements  
M. De J. Marichal, L. Piaggio, R. Comesaña and E. Gomez

Effect of soybean meal substitution with alternative protein sources on beef cattle carbon footprint  
L. Boselli, G. Pirlo and L. Migliorati

The effect of lowering dietary lysine content on broiler performance  
M.E.E. Ball

Alternative sampling types for assessing the composition of the rumen microbial community in cattle  
Enteric methane emissions of cows in two contrasted low input dairy grassland-based systems
M. Eugène, A. Danglard, F. Fournier, Y. Rochette, D. Pomiès and A. Farruggia

DREEM: model on enteric methane emissions in sheep farms
M. Eugène, L. Mansard, A. Vigan, M. Meuret, J. Lasseur, M. Benoit and P. Lecomte

Supplementation of Turi or Moringa fodder in crossbred goats diets on methane production
P. Paengkoum and S. Paengkoum

Effect of plant oil or nitrate supplementation on methane production and rumen fermentation of goats
P. Paengkoum, J. Khotsakdee and S. Paengkoum

Mitigation of greenhouse gas emissions from two different Emilia-Romagna (Italy) dairy systems
A. Dal Prà, L. Valli, M.T. Pacchioli, R. Chiarini and M. Montanari

Effect of a lipid-garlic treatment on archaeal community establishment and rumen function in lambs
C. Saro, M. Bernard, D. Graviou, Y. Rochette, C. Martin, M. Doreau, H. Boudra, M. Popova and D.P. Morgavi

How does nutrient intake affect ammonia emission from slurry in pigs?
W. Antezana, S. Calvet, P. Ferrer, P. García-Rebollar, C. De Blas and A. Cerisuelo

In vitro rumen fermentation and methane output of autumn grass fertilised at two rates of nitrogen
A. O’Connor, A.P. Moloney, P. O’Kiely, P. Nolan, T. Boland and M. McGee

The effect of breed on nitrogen utilisation efficiency of first lactation dairy cows
T. Gilfedder and T. Yan

Effects of breed and concentrate supplementation on methane emissions from ewes fed fresh grass
Y.G. Zhao, A. Aubry, N.E. O’Connell and T. Yan

The effect of by-product based concentrates on feed intake and milk production in dairy cows
J. Karlsson, R. Spörndly, M. Patel and K. Holtenius

Effects of dietary nitrate on rumen microbial species in beef cattle fed different basal diets

Session 52. Equine tourism and applying science to maximise rider and horse welfare

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: M. Fradinho

Theatre Session 52

Innovation in equestrian tourism
invited
N. Vaugeois

Native Breeds as socio-natural constructs and cultural heritage artefacts
R. Evans

Automated quality feedback for dressage riders using inertial sensors
invited
R.J. Thompson, S.M. Matheson, T. Ploetz, S.A. Edwards and I. Kyriazakis
Eye and rectal temperature, cortisol concentration, heart rate in assessment of stress in racehorses
M. Soroko, K. Howell, A. Zwyrzykowska, K. Dudek, P. Zielinska and Z. Dobrzanski

Could a leisure horse grading system improve horse-rider matching and equine welfare within the UK?
R. Lawson and C. Brigden

The horse’s voice: How trainers and riders make the horse’s needs relevant in dressage training
C. Lundgren

E-carriage: An opportunity for animal-friendly equine tourism
S. Waegeli, G. Schmidt, A. Scheurer and A. Hochuli

Wellness and equestrian tourism—innovation and product development
I. Sigurdardottir

Cluster development and innovation in equestrian tourism in North West of Iceland
I. Sigurdardottir and R. Steinporsson

Equestrian tourism and innovations: from the adventurer to the connected rider (France)
S. Pickel-Chevalier

Comparison of snaffle bits made either in steel or titanium in show jumping horses
N. Guzzo, C. Sartori, C. Stelletta, L. Bailoni and R. Mantovani

Poster Session 52

Analysis of the testing horses for therapeutic purposes in the Czech Republic
B. Hofmanova, D. Houdova, I. Majzlik, H. Vostrava-Vydrova and L. Vostry

Thoroughbred horse cortisol levels during training session and impact on racing achievements
A. Zwyrzykowska, K. Spitalniak and R. Kupczyinski

The effect of Human interactions with horses on physical and emotional wellbeing
A. Sepetkait, R. Cicenait, K. Berkien, A. Vainoras, R. Sveistien and M. Landauskas

Session 53. Animal behaviour and nutritional requirements

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: L. Boyle

Theatre Session 53

invited
Animal behaviour and animal nutrition science working together to support livestock production
S.A. Edwards and H.A.M. Spoolder

Measurement and analysis of drinking behaviour traits in broilers
J. Rusakovica, T. Ploetz, V.D. Kremer, S. Avendano and I. Kyriazakis

Feeding and drinking behavior of dairy cows at heat stress
M.A. Karatzia, A. Kalogianni and E.N. Sossidou

Feeding behaviour, explained by temperament and dominance, impacts feed efficiency in beef cattle
P. Llonch, M. Somarriba, M.J. Haskell and S.P. Turner

Impact of length of straw by the use of a straw mill on the selective feeding of young cattle and th
H. Scholz, B. Fischer and T. Baethge
Effect of antioxidant supplementation on serum α-tocopherol in horses undergoing moderate exercise

High rate monitoring CH₄ production dynamics and their link with behavioral phases in cattle
Y. Blaise, F. Lebeau, A.L.H. Andriamandroso, Y. Beckers, B. Heinesch and J. Bindelle

Non-invasive indicators of rumen function and stress in dairy cows
L.J. Tennant, G.A. White, R. Anand-Ivell and P.C. Garnsworthy

Accuracy of a commercially available activity monitor to record feeding and rumination time
E. Kennedy, M. Ryan, E. Harty, L. Mullane and D.P. Berry

Ruminating and feeding behaviour in grazing dairy herds
A. Spengler Neff, J.K. Probst, F. Leber and S. Ivemeyer

**Poster Session 53**

Adaptation of dairy cows to grazing after TMR feeding in early lactation on hepatic gene expression
A.L. Astessiano, P. Chilibroste, D.A. Mattiauda, A. Meikle and M. Carriquiry

Overstocking dairy cattle during the dry period affects DHEA and cortisol secretion
M. Fustini, A. Palmonari, G. Galeati, G. Gabai, D. Bucci and A. Formigoni

**Session 54. Climate and welfare smart housing systems (with OptiBarn project)**

Date: Wednesday 31 August 2016; 14:00 – 18:00
Chair: T. Amon / I. Halachmi

**Theatre Session 54**

Effect of lactation number on the respiratory rate of dairy cows on hot days
invited
S. Pinto, W. Pauw, C. Ammon, J. Heinicke, W. Heuwieser and T. Amon

Technical note: Validation of a device for automatically measuring of lying behaviour in dairy cows
J.C.S. Henriksen and L. Munksgaard

Air flow patterns and gas concentration distribution in naturally ventilated barns

The welfare of dairy cows in continuously housed versus pasture-based production systems
G. Arnott, C.P. Ferris and N.E. O’Connell

Simulation of the indoor climate of livestock buildings: a tool to assess climate change scenarios
G. Schauberger

Bayesian Networks to assess potential barn adaptations to climate change in dairy farms
E. Galán, A. Del Prado, E. Sanchis, F. Estellés and S. Calvet

Nighttime cooling improves milk yield of dairy cattle exposed to moderate heat stress
U. Serbester, S. Goncu and M. Gorgulu

**Poster Session 54**

Comparison of three techniques for measuring enteric methane emissions by ruminants
M. Arbre, C. Martin, Y. Rochette, C. Lascoux, M. Eugène and M. Doreau
Session 55. Free communications in genetics

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: N. Ibanez-Escriche

Theatre Session 55

Genetic control of environmental variation: Different structures of residual variance in DHGLM model 488
M. Felleki, A. Gilmour and L. Bodin

Genetics of carcass condemnations and relationships with growth, backfat and uniformity in pigs 488
H.A. Mulder, P.K. Mathur, R.H. Vogelzang and E.F. Knol

Selection for intramuscular fat in rabbits: direct and correlated responses 489
M. Martínez Álvaro, P. Hernández Pérez and A. Blasco Mateu

A deficient protein supply could be affecting selection for growth rate in rabbits 489
P.J. Marín-García, E. Blas, C. Cervera and J.J. Pascual

Investigating genes and enzymes related to intramuscular fat content in pig meat 490
M. Zappaterra, M. Deserti, P. Zambonelli and R. Davoli

Genetic analysis of stillbirth, birth weight and fertility traits in Landrace and Large White pigs 490

Comparison of male selection strategies in Finnish blue fox population using stochastic simulation 491
J. Peura, A.C. Sørensen and L. Rydhmer

Genetic relationship between polledness and other relevant traits in Holstein dairy cattle 491
H. Dressel, M. Wensch-Dorendorf and H.H. Swalve

Genome-wide association and prediction studies using a Bayesian dominance model 492
J. Bennewitz, T.H.E. Meuwissen and R. Wellmann

Increased prediction accuracy using a genomic feature model including information on QTLs 492
P. Sarup, J. Jensen, T. Ostersen, M. Henryon and P. Sørensen

Poster Session 55

Effect of selection for residual variance of litter size on biochemical parameters in rabbits 493

Effect of selection for residual variance of litter size on body condition in rabbits 493

Survival and pregnancy differences between lines divergently selected for environmental variability 494
N. Formoso-Rafferty, I. Cervantes, M. De La Flor, N. Ibanez-Escriche and J.P. Gutiérrez

Widespread third order linkage disequilibrium in the swine genome 494
L. Gomez-Raya, M.C. Rodriguez, L. Silió, C. Barragán and W.M. Rauw

Exact calculation of the Mendelian sampling covariability and their application in mating decisions 495
S. Bonk, M. Reichelt, F. Teuscher, D. Segelke and N. Reinsch
Session 56. Amazing grazing part 1

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: A. Van den Pol-Van Dasselaar / J.L. Peyraud

Theatre Session 56

New developments in grassland to make grazing management easier
M. O’Donovan, A. Geoghegan, M. O’Leary and L. Shalloo 495

Combining automatic milking and grazing using detailed cow information
A.H. Ipema, G. Holshof, F.W. Oudshoorn, C. Allain and F. Flessire 496

Analysis of behaviour of grazing cattle based on GPS and accelerometer data
J. Maxa, S. Thurner, M. Kaess and G. Wendl 496

The use of a virtual electric fence for dairy cow grazing
P.H. Hogewerf, P. Koene and A.H. Ipema 497

Satellite imagery to support sheep management in Tierra del Fuego, Chile
S. Radic, M. Villa, C. Moraga, R. Muñoz and J. McAdam 497

Grazing behaviour in dairy cows as a predictor of grass intake
R.L.G. Zom, J.T.N. Van Der Werf, B. Timmer, D. Hoeksma and C.G. Van Reenen 498

Cut and Carry: Investigating higher proportions of fresh grass in the diets of high yielding cows
P.R. Hargreaves, M.A. Lee and D.J. Roberts 498

Effect of ewe prolificacy & stocking rate on lamb growth, production efficiency and carcass output
E. Earle, N. McHugh, T.M. Boland and P. Creighton 499

Use of grazing in a dairy goat farm to design sustainable production systems in France
H. Caillat, B. Ranger, E. Bruneteau, C. Paraud and R. Delagarde 499

Poster Session 56

Influence of a virtual fence on synchronicity and social grouping of dairy cows
P. Koene 500

The effects of early lactation pasture allowance and duration on milk yield
E. Kennedy, L. Delaby, J.R. Roche, B. Horan and E. Lewis 500

Effect of grazing rotation length on dairy cow performance grazing at two herbage allowances
L.A. Pérez-Prieto, H. Gonzalez-Verdugo and R. Delagarde 501

Different energy sources with or without additives for pasture finished beef heifers

Pasture allocation time and tannins in partial mixed ration: intake and performance of dairy cows
C.A. Pozo, C. Cajarville, J.L. Repetto, M. Cuffia, A. Ramirez and G.V. Kozloski 502

Effect of prolificacy potential & stocking rate on ewe body weight & body condition score
E. Earle, N. McHugh, T.M. Boland and P. Creighton 502

Factors affecting the grazability of grass varieties
N. Byrne, M. O’Donovan, L. Delaby and T.J. Gilliland 503
Effects of two types of pastures on the performance of lambs during autumn in Western Patagonia
H.F. Elizalde, M. Tapia, R. Morales and M. Silva

Assessment of artificial neural networks to predict digestibility of ryegrass
G.A. Burns, A. Byrne, D. Johnston and T.J. Gilliland

Comparative grazing behaviour of lactating dairy crossbred suckler and beef suckler cows
M. McManus, R. Prendiville, T. Boland, S. McCabe and P. Creighton

(Some) slurry is good for (some) earthworms
A.K. Murchie, R.P. Blackshaw, A.W. Gordon and P. Christie

Quality and Management of Horse Pastures in Switzerland
F. Kägi, B. Reidy, H. Hertzberg and C. Herholz

Circulating microRNA expression changes during grazing in cattle
S. Muroya, H. Ogasawara and M. Hojito

Automating measurements of grassland production
A. Van Den Pol-Van Dasselaar and M.W.J. Stienen

Session 57. Precision Livestock Farming (PLF): pathways to commercialisation
(with EU-PLF project, BSAS & AGRI-EPI Centre UK) part 1

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: I. Halachmi / R. Dewhurst

Theatre Session 57

On-farm technologies to understand variation in growth performance
W. Thomson

Use of new sensor derived data in Australian dairy systems
C.E.F. Clark and S.C. Garcia

Mixed ration and free cow traffic in automatic milking: effects on production and milking frequency
M. Patel, H. Driscoll and E. Spörndly

Increasing milking frequency and milking yield in robotic milking using an automatic herding system
U. Drach, A. Degani, T. Pnini, I. Izhaki and I. Halachmi

Using automation to identify and prevent health problems in dairy cattle
T.J. Devries

Modeling individual voluntary feed intake based on feeding behavior
I. Richter, I. Halachmi and Y. Parmet

Rumen telemetry as an aid to managing water intake
T.T.F. Mottram and D. Bradley

A multi-Kinect system for monitoring and measuring functional traits in dairy cows
J. Salau, J.H. Haas, W. Junge and G. Thaller

Spatial, inter and intra-cow repeatability of thermal imaging
D.T. Byrne, H. Esmonde, D.P. Berry and N. McHugh
Poster Session 57
Classifiers based on 3D-head acceleration data used for lameness detection
Y. Link, J. Salau, S. Karsten and J. Krieter

Session 58. Creating an enduring dairy sector post quota (with ADSA, Erasmus+-ISM+ project, EuroDairy project) part 3
Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: A. Kuipers

Theatre Session 58
Electricity and water consumption on Irish commercial dairy farms
P. Shine, M.D. Murphy and T. Scully

Strategies of the Walloon dairy breeders faced to the uncertain dairy future
A.-C. Dalcq, T. Dogot, H. Soyeurt, Y. Brostaux, F. Vanwindekens, E. Froidmont, P. Rondia, B. Wyzen, A. Masure, C. Bauraind and Y. Beckers

Potential effects of herd expansion on cow welfare in a pasture-based dairy industry
J. Marchewka, J.F. Mee and L. Boyle

Understanding the mechanism of impacts of agricultural science. A case study: Dairy Fertility Index
S. Fowler and P. Midmore

Knowledge management on Austrian dairy farms

Sources of information for small-holder cattle farmers in North West Province, South Africa
D.M. Motiang and E.C. Webb

Participatory famers trials for increasing productivity of smallholders dairy production in Nepal
D. Sapkota

Poster Session 58
Using farming system approach for creating new occupations for small holder farmers in Thailand
A. Molee, W. Molee, B. Likitdejcharoj, T. Chormai, C. Hormta and P. Memklaotoak

Session 59. Free communications sheep and goat production
Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: J. Conington

Theatre Session 59
Breeding ewe replacements to lamb at 1 year of age: effects of ewe genotype and live weight at join
T.W.J. Keady and J.P. Hanrahan

Genetic management without pedigree: effectiveness of a breeding circle in a rare sheep breed
J.J. Windig, M. Verweij, M. Maurice-Van Eijndhoven and K. Oldenbroek

Selection of Norwegian White Sheep rams for AI on EBV and ram circle connectedness
J.H. Jakobsen, T. Blichfeldt and R.M. Lewis
An across breed comparison of Irish versus New Zealand ovine genetics
F.M. McGovern, P. Creighton, H. Walsh, K. McDermott, E. Wall and N. McHugh

RFI divergent lines in sheep and relationship with TMR RFI: first results
D. Francois, J.L. Weisbecker, E. Ricard, J.F. Bompia, D. Marcon, F. Bouvier, C. Moreno,
C. Marie-Etancelin and F. Tortereau

Relations between farmers and cheese-makers in dairy ewe sector: what room for sector coordination?
M. Millet and F. Casabianca

World sheepmeat production: a meta-analysis

Species, breeds and potential for improvement in animal fibre production in Europe
invited

Poster Session 59

Heritabilities for preweaning and its genetic correlations with other traits in Peruvian alpacas
A. Cruz, I. Cervantes, A. Burgos, R. Morante and J.P. Gutiérrez

Lifetime production of Istrian pramenka sheep in Slovenia
D. Kompan

Birthcoat type and lamb survival in the French Romane sheep breed
D. Allain, Y. Boudillon, D. Marcon and D. François

Genetic loci involved in antibody response to Mycobacterium avium ssp. paratuberculosis in sheep

Predicting intake from faecal chemical composition in pre- weaned lambs consuming milk and pellets
A.S. Danso, P.C.H. Morel, P.R. Kenyon and H.T. Blair

Effect of three rearing systems on ewe milk production and lamb growth in dairy sheep
M. Margetin, M. Oravcová, O. Bučko, J. Margetínová and J. Huba

Sexually-active rams and bucks as sustainable tools for out-of-season reproductive control
J.A. Delgadillo, J.A. Abecia, M. Keller, L. Zarazaga, H. Hernández, M. Chasles and P. Chemineau

Mechanistic model to analyse the effect of body weight and milk production in dairy sheep

Intake and total phenolic content of milk of goat as affected by the forms of two-stage olive cake
G. Keles, F. Akgul Yildiz and S. Unubol Aypak

Use of olive polyphenols in the diet of dairy sheep: effects on milk and rumen liquor FA composition
A. Cappucci, S. Alves, R. Bessa, G. Conte, A. Serra and M. Mele

Production performance of ram and castrated hill lambs offered a range of diets

Effect of eCG and GnRH administration on reproductive performance of Khalkhali goat
V. Vahedi and H. Abdi Benemar
Effect of polyethylene glycol 4000 supplementation on the performance of indigenous Pedi goats 526
D. Brown, J.W. Ng’ambi and D. Norris

Intake and digestibility of lambs fed cassava silage with dry tamarind residue 526
C.M. Souza, R.L. Oliveira, M.S. Borja, C.B. Pellegrini, N.J.A. Dos Santos, D.R. Menezes and T.V. Voltolini

The Icelandic heritage goat breed: conservation supported by utilization 527
O.R. Dyrmundsson

Comparative analysis of growth curves of Awassi lambs fed different protein diets 527
P.Y. Aad, R. Makdessi, R. Ghorayeb, K. Houchaymi and S. Abi Saab

Session 60. Free communications in animal health and welfare

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: G. Das

Theatre Session 60

Factors influence the behavioural parameters displayed during milking in dairy ewes 528
P. Simitzis, I. Seferlis, M. Goliomytis, I. Bizelis and I. Politis

Effect of grouping hour on agonistic behaviour of goats after introduction of unfamiliar individuals 528
M. Almeida, J. Magalhães, C. Araujo, J. Almeida, G. Stilwell and S. Silva

Is the Qualitative Behaviour Assessment a suitable method to assess positive emotions in pigs? 529
I. Czycholl and J. Krieter

Oxytocin candidate genes and maternal behaviour of sows 529
L. Rydhmer and E. Jonas

The added value of molecular phenotypes: towards the identification of animal welfare proxies 530

Genetic Analysis of Feather Pecking and Mortality in Laying Hens 530

Foot pad health and mortality as part of ‘controlling’ in commercial Turkey Production 531
K. Toppel, H. Schoen, F. Kaufmann, M. Gauly and R. Andersson

Results of a desk study on best practices for animal transport 531
M.A. Mitchell and H.A.M. Spoolder

Sow removal patterns in Norwegian and US farms 532
S.L. Thingnes, T. Aasmundstad, L.T. Bogevik, J. Kongsro and E. Grindflek

Welfare assessment of Low Atmospheric Pressure Stunning in chickens 532
J.E. Martin, K. Christensen, Y. Vizzier-Thaxton, M.A. Mitchell and D.E.F. McKeegan

Poster Session 60

Inter-observer reliability of scoring of skin and other welfare-related lesions in finisher pigs 533
N. Van Staaveren, A. Diana, L. Boyle and J.A. Calderón Díaz
Determination of some biochemical parameters in the blood of camels in Algeria
N. Sahraoui, O. Douadjì, A. Doudou, M. Brahim Errahmani, D. Guetarni and J.L. Hornick

Use of haemoglobin analysis to evaluate anaemia status of piglets after weaning
E. Royer, F. Barbé, D. Guillou, Y. Rousselière and E. Chevaux

vitality measured at birth is a better indicator of survival than measured 3 hours post-partum
H. Davis, A.E. Taylor and H.M. Miller

Genome-wide association study of the Eimeria maxima response in Cobb500 broilers
E. Hamzić, M.-H. Pinard-Van Der Laan, A.J. Buitenhuis, R. Hawken and B. Bed’hom

Genome wide association analysis for cell mediated immune response in chicken
V. Raeesi, A. Ehsani, R. Vaez Torshizi, M. Sargolzaei, A.A. Masoudi and R. Didehban

Identification of bovine respiratory disease causative bacteria using an amplicon sequencing assay

Phenotypic Profile of Enterobacteriaceae in Poultry Faeces, Litters and Water to farms in Nigeria
O.O. Adebowale and O.K. Adeyemo

Effect of prolonged storage of duckeggs with warming system on reproduction, growth and carcass
M. Waehner, H. Pingel and H. Sun

Towards mixed models focusing on the animal nature of body condition: Reproductive rabbit does
A. Arnau-Bonachera, D. Savietto and J.J. Pascual

Preliminary Association analysis of SLC6A4 SNPs with behavioural traits in PRE dressage competitions
S. Negro, M. Solé, M.J. Sánchez, E. Bartolomé, A. Molina and M. Valera

Effect of yeast based interventions on reducing Campylobacter spp., colonisation broilers
A. Corrigan and R. Murphy

Detection of faecal and gut contamination on chicken carcasses using a chlorophyll-based marker
S.A. Morgan, V.J. Theobald, D. Leemans, A.P. Gay and N.D. Scollan

Comparative study of inactivation of B. sporthermodurans by hydrostatic pressure and heat treatment
C. Aouadhi, H. Simonin, A. Maaroufi, M. Djemali and S. Mejri

The components of litter size in rabbits: effect of Ano-Genital Distance

Session 61. Genetic and environmental factors to understand dysbiosis in the GI tract of pigs (with PiGutNet)

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: P. Trevisi

Theatre Session 61

COST Action FA1401-European network on the factors affecting the gastro-intestinal microbial balance
P. Trevisi

Microbes, diet and host: how do they interact in newborn piglets?
T. Thymann
The porcine gut microbiota: composition and links with host's genetics and phenotypes
J. Estellé and C. Rogel-Gaillard

Delineating spatio-temporal processes in the gut mucosa of pigs
B. Hulsegge, J.M.J. Rebel, D. Schokker and M.A. Smits

The effect of host genetics factors on shaping pig gut microbiota
M. Maushammer, A. Camarinha-Silva, M. Vital, R. Wellmann, S. Preuss and J. Bennewitz

FUT1 gene polymorphism: impact on gut microbiota, immune response and metabolomic profile of piglets
C. Lauridsen, A.S.R. Poulsen, D. Luise, S. Sugiharto and N. Canibe

The A0 blood groups effect on the porcine gut microbiota colonization
V. Motta, D. Luise, M. Colombo, P. Trevisi and P. Bosi

Impact of high-wheat bran diet on sows’ microbiota, performances and progeny’s growth and health
J. Leblois, J. Bindelle, F. Dehareng, S. Massart, B. Li, H. Soyeurt, J. Wavreille, Y. Beckers and N. Everaert

Effects of dietary protein sources on intestinal and systemic responses of pigs
S.K. Kar, A.J.M. Jansman, D. Schokker, L. Kruijt and M.A. Smits

Poster Session 61

Effect of protected benzoic acid supplementation in nursery diets on piglet growth performance
S. Keller, M. Blanch, P. Buttin and J. Morales

Transcriptome analysis of porcine mesenchymal stem cells subjected to epigenetic modulation
A. Gurgul, J. Opiela, K. Pawlina, J. Romanek, K. Żukowski, T. Szmatola and M. Bugno-Poniewierska

Effects of FUT1 and MUC4 genotypes on microbiota and gene expression in the jejunum of healthy pigs
D. Luise, V. Motta, P. Bosi and P. Trevisi

Dietary organic acids, prebiotic and probiotic on gut microflora and lymphocyte populations in pigs
I. Skoufos, A. Tzora, A. Karamoutsios, G.K. Papadopoulos, I. Giannenas, A. Tsinas, E. Christaki and P. Florou-Paneri

Session 62. Free communications animal nutrition

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: G. Van Duinkerken

Theatre Session 62

ECO FCE: Effect of early artificial rearing and milk replacer supplementation on growth of pigs
J.G. Madsen, M. Kreuzer and G. Bee

ECO-FCE: Phytase, xylanase, and protease use in a wheat DDGS and rapeseed diet for finisher pigs
A. Torres-Pitarch, U. McCormack, V. Beattie, E. Magowan, G.E. Gardiner and P.G. Lawlor

ECO-FCE: Composition of the intestinal microbiota varies between high and low RFI pigs

Impact of amino acid formulation strategy on finishing pig performance
E. Magowan, K.J. McCracken, S. Smyth, F.J. Gordon, J. Kennan and V.E. Beattie
Performance of male layer hybrids fed different dietary protein sources as fattening cockerels
S. Ammer, N. Quander, I.D.M. Gangnat, V. Maurer and F. Leiber

Ability to digest explains part of the between cow feed efficiency variability
A. Fischer, R. Delagarde and P. Faverdin

Transcriptional profile of bovine rumen papillae in response to diet restriction and re-alimentation

Concentrate supplementation during the close-up dry period: dairy cow production and immune function
M. Little, N. O’Connell and C. Ferris

Improving the prediction of Amino Acid Digestible in the Intestine through meta-analysis
S. Lemosquet, C. Panzuti, L. Bahloul, G. Cantalapiedra-Hijar, P. Chapoutot, P. Nozière, D. Sauvant and J. Guinard-Flament

Insect’s based extruded feed: process optimization and impact on in vitro digestibility
M. Ottoboni, T. Spranghers, J. Michiels, P. De Clercq, S. De Smet, W. De Jaeghere, V. Dell’Orto, F. Cheli, L. Pinotti and M. Eeckhout

**Poster Session 62**

Effect of olive cake feeding and Saccharomyces cerevisiae on performance of Awassi lambs
B.S. Obeidat

Evaluation of hay for dairy cow produced in Mediterranean Area

Mycorrhized maize grain: effect on rumen environment and degradability
A. Chiariotti, D. Meo Zilio, G. Contò, S. Di Giovanni and C. Tripaldi

Effects of Silosolve bacterial inoculant on chemical composition and fermentation of ensiled Oats
R.S. Thomas, B.D. Nkosi, T. Langa and S. Modiba

ECO FCE: Phosphorus nutritional conditioning affects SLC34A2 expression in broiler chickens
M. Ballester, M. Francesch, O. González, D. Torrallardona and R. Quintanilla

ECO-FCE: Serum metabolite profiles as predictors for feed efficiency in broiler chickens
B.U. Metzler-Zebeli, E. Magowan, P.G. Lawlor and Q. Zebeli

Effect of methionine supplementation in processed Mucuna sloanei seed meal in broiler chickens diet
A.H. Akinmutimi and O.O. Ezeigbo

Effect of sow diet trace mineral source on colostrum and milk composition and growth of piglets
C. Rapp and J. Morales

Effect of trace mineral source in sow and nursery diets on nursery pig growth performance
C. Rapp and J. Morales

Effect of xylanase and β-glucanase on growth of weaned pigs fed wheat-barley diets: a meta-analysis
L. Payling, M.C. Walsh and S. Allan

Effects of dietary Glibenclamide and Sucrose on performance and carcass characteristics of broilers
M. Bouyeh, A. Poorhassan Talemi and A. Bouyeh
Evaluation of Ceriporiopsis subvermispora on improving the nutritive value of wheat straw

The effect of barley quality and exogenous enzyme supplementation on performance in finisher pigs
L.C. Clarke, E. Curley, P.O. McAlpine and J.V. O’Doherty 558

Probiotic fermentation using orange vinasse and molasses as feed substrates for animal production
J.E. Miranda Yuquilema, A. Marin Cardenas and D. Sánchez Macías 558

Prediction of ruminal starch degradability of maize forage
J. Peyrat, E. Meslier, A. Le Morvan, A. Ferard, R. Baumont, B. Deroche, P.V. Protin and P. Noziere 559

The effect of wheat quality and enzyme or mycotoxin binder inclusion on growth performance in pigs
L.C. Clarke, E. Curley, P.O. McAlpine and J.V. O’Doherty 559

The INRA feed tables and prediction equations for forage quality evaluation
R. Baumont, G. Maxin and P. Noziere 560

The use of laser diffraction to assess diet effects on faecal particle size of steers
J.M. Bowen, S. Sherriff, S.J. Lister and R.J. Dewhurst 560

Efficiency of novel probiotic complexes in a cattle diet
R.V. Nekrasov, M.G. Chabaev, A.A. Zelenchenkova, V.V. Dzhavakhiya, E.V. Glagoleva and M.I. Kartashov 561

The accuracy of Near Infra-red Spectroscopy analysis when used on clover-grass silages in the UK
A. Thomson, C. Reynolds, C. Rymer and D. Humphries 561

Effect of diet supplemented with Euphorbia heterophylla on lipid parameters in the thighs of rabbits
Y.D. Ahongo, D.V. Kouakou, E.M. Angbo, N.E. Assidjo and M. Kouba 562

Mixed enzymes supplementation in laying hens fed dried cassava pulp
S. Khempaka, P. Maliwan and W. Molee 562

The use of faecal NIRS to assess diet effects on digestive processes in steers
J.M. Bowen, S.J. Lister, R. Sanderson and R.J. Dewhurst 563

Using of probiotic complexes in feeding of fresh cows
V.V. Dzhavakhiya, E.V. Glagoleva, M.I. Kartashov, R.V. Nekrasov, M.G. Chabaev and A.A. Zelenchenkova 563

Influence of extrusion on nitrogen degradability of faba bean or lupine blends including urea
P. Chapoutot, O. Dhumez, A. Germain and G. Chesneau 564

Effects of hybrid and dietary mussel meal on broiler performance during 10 weeks of rearing
L. Jönsson, S. Gunnarsson, J. Yngvesson, M. Rezaei and A. Wallenbeck 564

Improved in vitro digestibility of protein feedstuffs with a bacterial endo-xylanase
C. Boudry, F. Philippe, B. Kambashi and J. Bindelle 565

Fungi from Antarctica as possible producers of polyunsaturated fatty acids for feed additives
L. Skofic, P. De Rossi, A. Del Fiore, C. Nobili, R. Gatti, A. Ambroco, R. Albergo, M. Trupo, R. Balducchi,

Selenium bioaccessibility in commercial selenium yeast products
S. Fagan, R. Owens, P. Ward, S. Doyle and R. Murphy 566
Effect of Buttiauxella phytase on grower pig performance fed wheat/barley diets without inorganic P 566
Y. Dersjant-Li, A.L. Wealleans, K. Schuh and G. Dusel

Response of finishing steers to graded levels of sorghum dry distiller’s grains in the diet 567
A. Simeone, V. Beretta, J. Franco, E. Martínez and F. Zanetti

The effect of phytase, time and freezing method on gastric inositol phosphate concentration in pigs 567
S. Laird, I. Kühn, C. Brearley, H. Whitfield and H.M. Miller

Productive and cecal microbial counts of broilers feeding with dry whey or whey protein concentrate 568
C. Pineda-Quiroga, R. Atxaerandio, R. Ruiz and A. García-Rodríguez

Supplementing ruminally protected phenylalanine to dairy diets containing high levels of canola meal 568
N. Swanepoel, P. Robinson and L. Erasmus

Biohydrogenation of linoleic acid by the rumen bacterium Propionibacterium acnes as affected by pH 569

Fermentation characteristics of milling by-products of durum wheat contaminated by mycotoxins 569

The nutritional value for dairy cow of wheat grain and wheat co-products from bioethanol production 570
P. Dagah and K. Theodoridou

Energy-protein supplement affects fatty acid profile of liver and adipose tissue of cows 570
A.M. Brzozowska, K. Rutkowska, M. Lukaszewicz and J.M. Oprzadek

Dietary effects of sodium bentonite on growth performance in broiler chickens 571
O. Besseboua, A. Ayad and H. Benbarek

Can Seaweeds be used as protein source in organic dairy farms? 571
U. Tayyab and L. Sinclair

Effects of chemical additives on fermentation characteristics of pressed sugar beet pulp 572
H. Scholz, C. Potthast, E. Kramer and H. Auerbach

Protein requirement of Korat chickens from 0 to 3 weeks of age 572
P. Maliwan, S. Khempaka and W. Molee

A robust approach to modelling in vitro rumen fermentation data 573
N.G. Bootes, B.J. Leury and F.R. Dunshea

From vegetable food waste to earthworms as novel food/feed: microbial hazard identification 573
D. Tedesco, J. Parisi, M. Castrica and C. Balzaretti

From vegetable food waste to earthworms as novel food/feed: nutritional characteristics 574
D. Tedesco, A. Tava and J. Parisi
Session 63. Free communications on equine genetics and breeding

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: K.F. Stock

Theatre Session 63

Genetic analysis of temperament traits assessed by riders and judges at Icelandic horse field tests
H. Sigurðardóttir, S. Eriksson and E. Albertsdóttir

Analysis of different definitions of performance traits in riding horses
V. Welker, K. Schöpke, M. Wensch-Dorendorf and H.H. Swalve

Genetic composition of Nordic riding horse populations and joint breeding value of stallions
S. Furre, Å. Viklund, J. Philipsson, B. Heringstad and O. Vangen

Implications of across-studbook genetic correlations between linear traits for sport horse breeding

A genome-wide association study of young horse test traits in Swedish Warmblood
S. Eriksson, Å. Viklund and S. Mikko

No signs of decline in genetic variation in racing performance traits in Swedish standardbred
T. Árnason

Estimation of heritabilities of conformation traits in Slovenian population of Lipizzan horse
K. Potočnik, M. Mesarič, V. Štepec, J. Kršnik, A. Kaić and M. Simčič

Population structure and recent migration in closely related Old Kladruber and Lipizzan populations
N. Moravčíková, L. Vostrý, H. Vosstrá-Vydrová, O. Kadlecík and R. Kasarda

Poster Session 63

High level and amateur competition are compatible objectives for jumping horses
A. Ricard

Cross-validation analysis of genetic evaluation models for ranking in endurance horses
S. García-Ballesteros, L. Varona, J.P. Gutiérrez and I. Cervantes

Multi-trait animal model estimate of genetic parameters for morphometric traits in the Murgese horse
G. Bramante, A.M. Cito, E. Ciani and E. Pieragostini

Linear conformation traits of Domestic hilly horse breed in Montenegro
B. Marković, R. Mumović and M. Marković

Yearling conformation and radiographic findings related to Swedish Standardbred trotter performance
I. Clemensson Lindell, Å. Viklund, C. Olsson and S. Eriksson

A genome-wide association study (GWAS) for Equine Recurrent Airway Obstruction (RAO)
D. Schnider, S. Rieder, T. Leeb, V. Gerber and M. Neuditschko

Genetic parameters of cryptorchidism in Friesian stallions
A. De Jong, A. Schurink, J.R. De Nooij, I. Hellinga and B.J. Ducro

Are the breeders of native horse breeds interested in preserving the animal genetic resources?
G.M. Polak
Maternal genetic diversity among Estonian local horse breeds
E. Sild, S. Värv and H. Viinalass

Runs of homozygosity in four different horse breeds
A. Burren, H. Signer-Hasler, M. Neuditschko, M. Hunziker, V. Gerber, D. Schnider, T. Leeb, S. Rieder and C. Flury

Estimation of segregation variance in Spanish Trotter metapopulation by hierarchical Bayes model
I. Cervantes, M. Valera, M.D. Gómez, F.F. Cardoso and A. Molina

Pedigree analysis of the indigenous Tori Horse breed
K. Rooni and H. Viinalass

Genetic diversity loss in populations Czech draft horse breeds
L. Vostry, H. Vostra-Vydrova, B. Hofmanova, Z. Vesela, J. Schmidova and I. Majzlik

Carcass characteristics and growth parameters of foals slaughtered at 13 months of age

Equine viral arteritis in breeding stock: a quantitative estimation of the surveillance sensitivity
J.-P. Amat, T. Vergne, A. Hans, B. Ferry, P. Hendrika, J. Tapprest, B. Dufour and A. Leblond

Session 64. KT: Using on-farm research and the multi-actor approach to boost effectiveness of knowledge exchange (with AgriSearch)

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: J. Campbell

Theatre Session 64

invited Horizon 2020 and european partnerships
L. Mahy

invited Effective knowledge transfer through discussion groups
T. O’Dwyer

invited KT Using on-farm research and the multi-actor approach to boost effectiveness of knowledge exchange
J. Birnie

invited DAIRYMAN: An exemplar of effective knowledge transfer and exchange
J. Bailey

invited Low emission slurry application technology: a research, adviser’s, and farmer’s perspective
M. Mulholland

invited Effective KT: a farmers perspective
D. McConnell

Knowledge Integration and Knowledge Exchange: broadening the concepts and tools that we use
S. Hoste

Improving beef production efficiency through growth monitoring tools
Perceptions of French private veterinary practitioners on their role in organic dairy farms
J.E. Duval, N. Bareille, C. Fourichon, A. Madouasse and M. Vaarst

**Poster Session 64**

Knowledge transfer within a retail supply chain: The Tesco Supplier Network
E. Fardy, C. Maddocks and F.G. Roberts

Welfare training in emerging livestock Sectors: Asian tropical prawn supply base of Tesco (UK) Ltd
F.G. Roberts, C. Maddocks and A.J. Lucas

**Session 65. Dog breeding**

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: E. Strandberg

**Theatre Session 65**

*invited*

Tools and efforts for improved health in Swedish dogs
S. Malm

*invited*

Developments in dog genetics: a UK perspective
T.W. Lewis

The genetics of gun-dog trial results in Retrievers
G.E. Pollott and C. Wilkinson

Genetic relationships between hunting traits of leashed and non-leashed traits in Norwegian Elkhound
M. Wetten, K. Lysaker, T. Aasmundstad and O. Vangen

Non genetic factors affecting hunting ability in Italian Scent Hound dog
S. Riganelli, S. Antonini, M. Gubbiotti, A. De Cosmo, A. Valbonesi and C. Renieri

Heritability of mentality traits in Swedish dogs
E. Strandberg, K. Nilsson and K. Svartberg

Syringomyelia in Cavalier King Charles spaniels: new detailed phenotypes for the genetic evaluation

Population analysis and conservation options of the Norwegian Lundehund
A. Kettunen, M. Daverdin, T. Helfjord and P. Berg

**Poster Session 65**

Genetic variability of the short-haired and long-haired Segugio Italiano
S. Pallotti, A.M. De Cosmo, A. La Terza, D. Pediconi, I. Pazzaglia, C. Nocelli, M. Gubbiotti and C. Renieri
Session 66. Managing the food supply chain (with Institute of Food Science and Technology)

Date: Thursday 1 September 2016; 08:30 – 11:30
Chair: S. Durand

Theatre Session 66

invited
Campylobacter posing new challenges and opportunities to the food supply chain
N. Corcionivoschi, C. Kelly and M. Linton

invited
Food safety, integrity and animal welfare challenges for M&S protein supply
P. Kennedy

Impact of information load on the centrality parameters of a pig trade network in Northern Germany
K. Büttner and J. Krieter

invited
Nutritional benefits of animal products

invited
Sustainability of cattle supply in the United Kingdom
J. Birnie

Poster Session 66

Further development of temporal parameters for directed networks
K. Büttner, J. Salau and J. Krieter

Session 67. Free communications in genetics

Date: Thursday 1 September 2016; 14:00 – 18:00
Chair: J. Lassen

Theatre Session 67

RNA-Seq transcriptomics analyses to identify biomarkers for in vitro production of embryos in cows

Transcriptome Profiling to Predict Piglet Early Development and Vitality from Umbilical Cord Blood
L. Canario, V. Voilet, N. Iannucelli, Y. Lippi, Y. Billon, J. Bailly, M. San Cristobal and L. Liaubet

A large X-chromosomal haplotype is associated with small body size of minipigs

Genome-wide association studies for production traits in pooled pig F2 designs
I. Blaj, J. Tetens, S. Preuß, R. Wellmann, J. Bennewitz and G. Thaller

Estimation of recombination rates in a dairy cattle population
A. Hampel, F. Teuscher and D. Wittenburg

Implementation of genomic selection in three French regional dairy cattle breeds
M.P. Sanchez, D. Jonas, A. Baur, V. Ducrocq, C. Hozé, R. Saintilan, F. Phocas, S. Fritz, D. Boichard and P. Croiseau
Systematic genotyping of randomly sampled cows to improve reliability of GBVs of young candidates  
602

Cow genotyping strategies for genomic selection in small dairy cattle population  
602

The value of genotyping in commercial farms for effective use of genotype-environment interactions  
P.K. Mathur, Ø. Nordbø, T. Aasmundstad and E. Grindflek  
603

Joint genetic analysis of Holstein-Friesian dairy cows performing in Sub Saharan Africa  
603

AlphaSim: fast and flexible simulation and evaluation of breeding programs  
604

Social genetic effects for growth in Danish Landrace pigs increase with group size  
H.M. Nielsen, B. Ask, J. Krogsdal, O.F. Christensen, L. Janss and P. Madsen  
604

Estimating genetic parameters for direct and indirect effects on survival time in crossbred layers  
E.D. Ellen, T. Brinker and P. Bijma  
605

Ignoring genetic service sire effect for litter size in sire and dam lines is unjustified  
B. Ask, B. Nielsen and T. Ostersen  
605

Poster Session 67

Selective DNA pool-seq approach on bitter taste receptor genes in different pig populations  
A. Ribani, F. Bertolini, G. Schiavo, E. Scotti, V.J. Utzeri, S. Dall’Olio, P. Trevisi, P. Bosi and L. Fontanesi  
606

Relationship between selection criteria and kits survival in the INRA 1777 rabbit line  
H. Garreau, E. Bamisse, J. Ruesche, J. Hurtaud, M. Maupin, L. Canario and I. David  
606

Estimation of maternal and cytoplasmic genetic variance for visual scores in Nellore Cattle  
607

Genetic variability of hand reared Northern Bald Ibis Geronticus eremita released in Spain  
I. Cervantes, J.P. Gutiérrez, M. De La Flor and M. Cuadrado  
607

Effect of the polymorphism in GPX5 gene on reproductive performance traits in Large White × Landrace  
D. Polasik, A. Terman, M. Kumalska, O. Chomczyńska, P. Urbański and G. Żak  
608

Association of LIF polymorphisms with fattening and slaughter traits of Polish Landrace pigs  
A. Mucha, K. Ropka-Molik, K. Piórkowska and M. Tyra  
608

Predictive ability of a single-step terminal-cross model  
L. Tusell Palomero, H. Gilbert, J. Riquet, M.J. Mercat, A. Legarra and C. Larzul  
609

Association analysis of c.105G>A SNP in CAPN1 gene with carcass and meat quality traits in goose  
S. Negro, M. Solé, A. Membrillo, F. Peña, V. Domenech, I. Verona, M. Rubí, M. Valera and A. Molina  
609

Accuracy of genomic selection to improve litter traits in the French Landrace pig population  
A. Bouquet, T. Bellec, L. Flatres Grall, B. Ligonesche and C. Larzul  
610
Implementation of BLUP for breeding value estimation in Russian Federation

Comparison of single and multi-trait animal models for genetic evaluation of milk production traits
T.K. Belay and T. Ådnøy

Genetic parameter estimations for ‘out of season’ breeding in UK dairy goats
S. Desire, S. Mucha, R. Mrode, M. Coffey and J. Conington

Longitudinal analysis of pig growth using Legendre polynomial equations

Genome-wide association analyses confirm a major QTL for fatty acid composition in porcine backfat
M. Van Son, E. Gjerlaug-Enger, H. Hamland and E. Grindflek

Organic pig breeding programs with limited trait registration should adopt genomic selection
T.O. Okeno and A.C. Sørensen

Comparison between animal model and polynomial Legendre test-day model in dairy cattle
M.C. Rotar, H. Grosu, M.A. Gras and R.S. Pelmus

Effect of different management systems on performance and carcass traits of crossbred chickens
W. Molee, P. Mernkrathoke, S. Khempaka and A. Molee

Social genetic effects for daily gain and correlation to conformation traits in two pig breeds
J.J. Krogsdahl, B. Ask and H.M. Nielsen

Genome wide association studies for dry-cured ham quality traits in two Italian heavy pig breeds
G. Schiavo, G. Galimberti, S. Bovo, F. Bertolini, M. Gallo, V. Russo, L. Buttazzoni and L. Fontanesi

Session 68. Amazing grazing part 2

Date: Thursday 1 September 2016; 14:00 – 18:00
Chair: J.L. Peyraud / C. Ferris

Theatre Session 68

Amazing grazing in periods of drought

Ten years-data of milk production in beef cattle under South American grazing conditions
M. Lewdiukow, O.M. Lema, J.I. Velazco and G. Quintans

Herbage and milk production from perennial ryegrass and white clover swards in a grazing system
M. Egan and D. Hennessy

The effect of grass yield on economic and environmental performance of dairy farms
C.W. Klootwijk, C.E. Van Middelaar, A. Van Den Pol-Van Dasselaar, P.B.M. Berentsen and I.J.M. De Boer

Substitution rate between forage supplement and grazed pasture in dairy cows: a meta-analysis
M.F. Miguel, H.M.N. Ribeiro Filho and R. Delagarde
Effects of substitution of kikuyu forage by oat silage on milk production and quality in dairy cows
S. Yuste, W. Sánchez, A. De Vega García and J.A. Guada

The effect of tetraploid and diploid swards sown with and without white clover on milk production
B. McCarthy, M. Dineen, C. Guy, F. Coughlan and T. Gilliland

Are physical and feeding activities at pasture impacted by cattle breed and feeding restriction?
A. De La Torre, F. Anglard, M. Barbet, A. Le Morvan, J. Agabriel and R. Baumont

Effects of grazing previously abandoned grassland on performance in sheep
L. Grøva, H. Steinshamn, E. Brunberg and U. Støbet Lande

Does access to pasture affect welfare in dairy cows?
L. Armbricht, C. Lambertz, D. Albers and M. Gauly

Wolf predation risk in summer farms of Italian Alps
G. Faccioni, F. Marucco, A. Menzano, E. Sturaro, S. Calderola and M. Ramanzin

Nutrient composition of faeces in feral Giara horses in relation to seasonal availability of feed
M.G. Cappai, G. Arru, M. Di Marco, S. Poddesu, D. Bergero and W. Pinna

Recent advances in pasture-based automatic milking systems
invited
C.E.F. Clark

Session 69. Precision Livestock Farming (PLF): pathways to commercialisation (with EU-PLF project, BSAS & AGRI-EPI Centre UK) part 2

Date: Thursday 1 September 2016; 14:00 – 18:00
Chair: D. Berckmans / I. Halachmi

Theatre Session 69
invited
Precision Livestock Farming in Europe: EU-PLF project
D. Berckmanns

Validation of portable pig weighing system on Iberian pigs based on image analysis and cloud service
I. Amat-Roldan and D. Verde

Automatic image analysis to predict the onset of farrowing in sows
I. Traulsen, J. Brünger, M. Kardel, O. Burfeind and J. Krieter

Can an accelerometer based labelling method replace a human: postural profile of farrowing sows?
M. Oczak, K. Maschat, D. Berckmans, E. Vranken and J. Baumgartner

Activity and occupation analyses as indicators of broiler welfare risk
A. Peña Fernández, T. Norton, V. Exadaktylos, E. Vranken and D. Berckmans

Precision tools for Brazilian beef production systems
P.P. Pires

Ultrasonography as a method to determine body composition in cattle
Management application of activity data monitoring in grazing beef cows  
R. Gabrieli  
625

EU-PLF e-course: a free on-line e-course to understand concepts of precision livestock farming  
J. Faure, M. Bonneau, L. Montagne, Y. Le Cozler, G. Jalam, A. Verbrugge and D. Berckmans  
626

Discrepancy between expected and actual benefits of automatic heat detectors in commercial herds  
C. Disenhaus, C. Allain, R. Courties, Y. Quiniou and N. Bareille  
626

Productivity evaluation using precision livestock farming vs conventional methodologies  
S. Ocak and O. Yilmaz  
627

### Session 70. Free communications in cattle

Date: Thursday 1 September 2016; 14:00 – 18:00  
Chair: S. König / Y.R. Montanholi

#### Theatre Session 70

**Genetics of alternative energy efficiency definitions in grazing lactating dairy cows**  
627

**Genetic parameters for a multiple-trait linear model conception rate evaluation**  
628

**Genetic parameters of body weight and body measurements of Austrian dairy cattle**  
invited  
C. Pfeiffer, B. Fuerst-Waltl, F. Steininger and C. Egger-Danner  
628

**Holstein-Friesian vs 3-breed crossbred dairy cows within a low and moderate concentrate input system**  
C.P. Ferris, P.J. Purcell, A.W. Gordon, T. Larsen and M. Vestergaard  
629

**Biological characterization of the estrous cycle in lactating Holstein cows**  
629

**The cow for the system: limiting milk yield and body condition loss to ensure reproduction on time**  
N. Bedere, L. Delaby, S. Leurent-Colette and C. Disenhaus  
630

**Application of a milk MIR methane prediction equation to Swiss dairy cattle population data**  
630

**Effect of stocking rate and animal genotype on milk production in spring-calving dairy cows**  
E.L. Coffey, S. Fitzgerald, K.M. Pierce and B. Horan  
631

**Effect of different regrowth grass silages on dairy cow performance**  
D. Pang, P. Huhtanen and S. Krizsan  
631

**Variation in social organization in cattle breeds determined by social network analyses**  
P. Koene  
632

**Technical and economic analysis of using ensiled or wrapped grass for young bulls finishing**  
A. Ferard, Y. Carel, P. Kardacz and J. Peyrat  
632
Poster Session 70

Heterogeneity of variance for milk, fat and protein in a small cattle population
N. Guzzo, C. Sartori and R. Mantovani

Effects of chemical additive applied into the rumen of dairy cows in form of bolus
R. Loucka, P. Homolka, F. Jancik, P. Kubelkova, Y. Tyrolova, A. Vyborna and J. Schmidova

Technical note: Use of internal transcribed spacer for ruminal yeast identification in dairy cows
E. Vargas-Bello-Pérez, N. Cancino-Padilla, C. Ramírez and J. Romero

Effect of high and medium weight gain on puberty onset in early-weaned heifers

Trial of construction of the in vitro model to analysis placenta separation at delivery
H. Kamada, S. Matoba and H. Takahashi

Effect of CIDR reused by 4 or 6 time in Nellore heifers submitted to short Fixed time AI protocol

Improvement of udder conformation by culling cows not suitable for milking once-a day
N. Lopez-Villalobos, J.F. Rocha, R.A. Harris, F. Lembye, N.W. Sneddon and D.J. Donaghy

Pilot study to evaluate the use of sorted semen within a synchronisation programme in beef herd
D. Anderson, F.O. Lively and D.E. Lowe

Interactions of alfalfa hay provision and physical form of starter in calves
M.R. Niliel

Biogas production from livestock waste: potential of bovine e buffalo rumen inocula
A. Chiariotti, M. Cali, G. Lembo and A. Signorini

Session 71. Meat and milk quality - highlighting knowledge gaps in the supply chain

Date: Thursday 1 September 2016; 14:00 – 18:00
Chair: O. Tzamaloukas

Theatre Session 71

invited
Incorporating meat quality in sheep breeding programmes: potential of non-invasive technologies
N.R. Lambe, N. Clelland, R. Roehe, K.A. McLean, J. Gordon, D. Evans and L. Bunger

invited
Novel analytical technologies of Quality in the Sheep & Goat Dairy Sector
G. Psathas and O. Tzamaloukas

invited
Managing and improving meat quality through the chain
M. McWhinney

Effects of electrical stimulation on pH/ temperature decline
R. Law, J. Birnie, S. Leitch, G. Williamson, D. Devlin, D. Farrell and L. Farmer

Relationship between flavour volatiles and eating quality of lamb
J. McKinnie-Hill, A. Aubry, T. Hagan, L. Farmer and F. Monahan
The type of condensed tannins affected differently growth and meat lipid oxidation of light lambs  
S. Lobón, A. Sanz, G. Ripoll, M. Joy and M. Blanco  

Effect of ageing and hanging method on flavour precursors in beef  

Sensory benchmarking of commercial sirloin steaks  

Dried Distillers Grain byproduct improves the fatty acid profile of ewe milk in Chios sheep  
O. Tzamaloukas, D. Sparaggis, C. Michael, C. Constantinou, M. Orford and C. Papachristofoorou  

Investigation into the impact of age and mixing with ewes on eating quality of rams  

Milk protein profile: measure from mid infrared spectra and identification of influence factors  

Effect of genetic group on sheep milk composition and lamb development  

Poster Session 71  

In vivo estimation of lamb carcass quality using ultrasound measurements  
E. Ghita, R. Pelmus, C. Lazar, M.C. Rotar, M. Habeianu, M. Gras and M. Ropota  

Comparison of meat quality of lambs raised on two types of pastures on Western Patagonia  
L. Bravo-Lamas, H.F. Elizalde, I. Subiabre, B. Martinez and R. Morales  

A preliminary investigation on the variation of milk composition during lactation of ten pure bred A  
A. Mohammed, A. Rolingson, A. Edwards, A. Khan and A. Griffith  

Effects of the rearing system, sex and age on the fatty acid profile of three muscles in Chios breed  

Kappa casein gene polymorphism in Iranian local Goats breed  
N. Hedayat Evrigh and V. Karimi Ouri  

Effect of STAT5A/Eco81I gene polymorphism on milk yield in Garganica goat breed  
M. Selvaggi, A.G. D’Alessandro, F. Pinto, G. Martemucci and C. Dario  

Study of the external morphometry and carcass traits in rabbit of local population  
A. Berbar, K. Lounaouci, N. Benali, Z. Boumahdi and R. Belabbas  

Session 72. Optimising animal nutrition at an integral level: improving health, nutrient use efficiency and product quality  

Date: Thursday 1 September 2016; 14:00 – 18:00  
Chair: G.S. Savoini  

Theatre Session 72  

Lipid mobilization, immune system and vitamin E in transition cows: an old story revisited  
I. Politis and G. Theodorou  

97
Lactic acid treatment and P levels in the diet impact microbial dynamics in lactating dairy cows 648
R.M. Petri, B.U. Metzler-Zebeli and Q. Zebeli

Recording of feed efficiency under on-farm conditions 648
F. Steininger, M. Ledinek, L. Gruber, B. Fuerst-Waltl, K. Zottl and C. Egger-Danner

Growth stage and ensiling effects on ruminal degradability of whole-crop oats 649
S. Stirling, C. Cajarville, J.L. Repetto, J.E. Díaz, M. Sosa, J. Benkendorf and M. Pla

Oxidative stability of meat from lambs fed silage mixtures of timothy grass, red clover and sainfoin 649
G. Luciano, A. Priolo, B. Valenti, S. Mattioli, M. Pauselli, G. Copani, C. Ginane and V. Niderkorn

Differences in digestibility between cows contribute to explain differences in feed efficiency 650

Maternal dietary interventions affect piglet intestinal development in different ways 650

Ruminal protected arginine supplementation in cattle and sheep 651
J.S. Caton, J.L. Peine, L.P. Reynolds and A.M. Meyer

The effect of linseed expeller supplementation on carcass traits and meat colour of finishing gilts 651
E. Garcia-Hernandez, M. Tor, D. Villalba and J. Alvarez-Rodriguez

High phytase supplementation levels improve performance in piglets fed P-adequate diets 652
H. Graham and P. Wilcock

The effect of xylanase and phytase supplementation on performance and egg quality in laying hens 652
A.E. Taylor, M.R. Bedford and H.M. Miller

In vivo and in vitro assessment of two copper sources for broilers 653
M. Hamdi, D. Solà-Oriol, R. Franco-Rosselló, A. Romeo and J.F. Perez

**Poster Session 72**

Effect of the diet on the consumer acceptability of fresh loin from Iberian pigs 653
M. Gispert, J. García-Gudiño, I. Blanco-Penedo, J. Perea-Muñoz, J. García Casco, E. Gonzalez, A. Brun and M. Font-I-Furnols

The effect of curcumin on the oxidative stability of pork 654
O. Bučko, A. Lehotayová, J. Petrák, P. Juháš, M. Margetín and O. Debrecéni

Colostral transfer of immunoglobulins in dairy calves 654
E.M. Andrée O’Hara, I. Olsson and K. Holtenius

Metabolomic profile of early lactating dairy cow receiving rumen-protected choline 655

Evaluation of untreated field pea (Pisum sativum L.) as a protein source for laying hens 655
G. Ciurescu, M. Hâbeanu and C.O. Pana

Effects of dietary n-3 PUFA-rich camelina cake on fatty acids distribution in some tissue of pigs 656
M. Hâbeanu, M. Ropota, N.A. Lefter, G. Ciurescu, E. Ghita and T. Mihalcea
Evaluating homogeneity of TMR in dependence on feed mixing times and different loads of a TMR wagon

F.M. Tangorra, A. Agazzi, A. Costa, A. Pilotto and G. Savoini

Expander processed maize increases digestibility of nutrients and hence alters the lysine to energy ratio

R. Puntigam, K. Schedle, C. Schwarz, E.M. Lechner and M. Gierus

Effect of feeding level on body composition of pure and crossbred lambs finished in feedlot

W. Henrique, G. Aferri, I.H.S. Fuzikawa, E.A. Oliveira, S.N. Esteves and M.M. Alencar

Body composition of purebred and crossbred lambs finished in feedlot

G. Aferri, W. Henrique, I.H.S. Fuzikawa, E.A. Oliveira, S.N. Esteves and M.M. Alencar

Performance of purebred and crossbred lambs finished in feedlot

G. Aferri, W. Henrique, I.H.S. Fuzikawa, E.A. Oliveira, S.N. Esteves and M.M. Alencar

Effect of feed restriction on performance of pure and crossbred lambs finished in feedlot

W. Henrique, G. Aferri, I.H.S. Fuzikawa, E.A. Oliveira, S.N. Esteves and M.M. Alencar

Effect of L-Selenomethionine supplementation in starter broilers

J. Michiels, J. Degroote, M. Majdeddin, A. Golian, S. De Smet, M. Rovers, A.B.J. Van Dalen and L. Segers

Changes in body condition and serum metabolites in endurance horses fed stabilized rice bran

A. Agazzi, G. Savoini, G. Farina, E. Mariani, M. Doronzo, C. Valentinelli and C. Belladelli

Effect of hydroxy copper and zinc and L-selenomethionine on claw health of sows

A.B.J. Van Dalen and I. Eising

Nutritional value of Proglobulin® in piglets

X. Guan, F. Molist, C. Van Vuure and P.J. Van Der Aar

Effect of dietary selenium source on selenium deposition in broiler muscle tissue

M. Rovers, L. Segers, I. Eising and G. Du Laing

Modifying the feeding strategy of lightest pigs helps to partly catch up their bigger counterparts

S. López-Vergé, D. Solà-Oriol, J. Bonet, J. Coma and J. Gasa

Relation between selenomethionine in dietary selenium sources and selenium deposition in broiler

S. Van Beirendonck, B. Driessen, M. Rovers, L. Segers, I. Eising, A. Ruttens and G. Du Laing

The effect of wheat microdochium content on broiler performance

M.E.E. Ball, J. Sloss and A. Catlett

Effects of different levels of wDDGS and enzyme inclusion on fatty acid concentrations of broiler breast muscle

N.B. Rano, A.S. Chaudhry and S.A. Edwards

Health and Performance of preweaned calves fed Alltech Blueprint milk replacer

M. Agovino, A.C. Berge and F. Aubry

Effect of vitamin E in the diet of pigs on the fatty acids of muscles during frozen storage

T. Popova, M. Ignatova and P. Marinova

Seed yield, oil content and fatty acid composition of new genotypes of spineless safflower

C. Stamigna, D. Chiaretti, E. Chiaretti, P.P. Danieli, R. Primi and B. Ronchi
Effect of probiotic mixes on growth performance, mortality and incidence of diarrhea of piglets
J.E. Miranda Yuquilema, D. Sánchez Macías, A. Marín Cardenas and L. Marrero

Replacing dietary corn with sugar beet pulp on ruminal function and performance of Egyptian buffalo
H.M. El-Zaiaat, H.M. Abu-Zeid, A.S. Morsy, M.F. Attia, M.A. Abaza and S.M.A. Sallam

Effect of a novel silage inoculant on fermentation profile and aerobic stability of ryegrass silage
V.J. Taha, P. Townley and J.A. Huntington

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Lasalocid can manipulate macro-mineral utilisation in dairy cows

Assessment of various forms of metals on the antioxidant activity of a selection of feed components
M.J. Concarr, L.A. Byrne and R.A. Murphy

Influence of trace minerals on feed grade phytase activity
M. Gaffney, R. O’Rourke, L. Byrne and R. Murphy

Effect of replacing soybean meal with field pea on meat quality in the diets for turkeys
R. Juodka, V. Juskiene, R. Nainiene and R. Juska

Transcriptomic signature of selenium versus zinc and iodine supplementation in sheep
F. Palazzo, R. Elgendy, F. Castellani, L. Grotta, S. Marchetti, M. Giantin, M. Dacasto and G. Martino

Inclusion of palm kernel expeller meal in barley-based concentrates for beef cattle
D. Magee, A.P. Moloney, A. Kelly, E.G. O’Riordan and M. McGee

Impact of incorporating Moringa oleifera seed meal as protein source in growing lambs rations

Effect of diet supplementation on tenderness development and on proteomic changes in lamb meat
A. Della Malva, M. Albenzio, G. Annicchiarico, M. Caroprese, A. Santillo, A. Sevi and R. Marino

In vitro evaluation of plants vegetable waste: effects on rumen fermentation
D. Tedesco, J. Parisi and L. Garavaglia

Effect of early introduction of milk replacer feeding on pre and post-weaning weight gain
J. Barry, J.P. Murphy, E. Bokkers and E. Kennedy

Effects of enhanced distillers’ grains on caecal microbiome composition in growing broiler chicks
A.A. Tonks, C. Rymer and D.T. Juniper

Effect of 4 feed additives on daily salivation and ruminal pH dynamic in lactating dairy cows
S. Stephan

Session 73. Physiological indicators of animal welfare

Date: Thursday 1 September 2016; 14:00 – 18:00
Chair: C.H. Knight

Theatre Session 73

Developing and implementing technological wellbeing evaluation in dairy animals: COST DairyCare
C.H. Knight, A. Castro-Costa and G. Caja
Indicators of early lactation disease in the dairy cow from the previous lactation and dry period  
G.L. Smith, M.G.G. Chagunda, C.J. Ashworth and N.C. Friggins

Effect of abrupt weaning at housing on welfare biomarkers in beef suckler calves  
B. Earley, E. Lynch and M. McGee

Validating activity sensors for measuring lying behaviour in dairy calves  
G. Finney, S.J. Morrison, A. Gordon and G. Scoley

Processing automatic tracking data to identify interactions between Holstein-Friesian cows  
S. Medisetti, B. Foris, S. Trißl, J. Langbein and N. Melzer

Assessment of novel technologies as indicators of stress in dairy origin calves  
G.E. Scoley and S.J. Morrison

Can infra red thermography be used to identify ill-health and stress in pre-wean calves?  
G.E. Scoley and S.J. Morrison

Expression of 11b-HSD1 mRNA in adipose tissue of dairy cows during the periparturient period  
A. Alizadeh, H. Sadri, J. Rehage, S. Dänicke and H. Sauerwein

Effects of weaning conditions on metabolic parameters, growth and health of piglets  
A. Buchet, C. Belloc, N. Le Floc’h and E. Merlot

Characterization of central, systemic and peripheral thermoregulation in the dromedary camel  
H. Al-Tamimi and M. Daradka

Acute stress response in sheep of four different identity profiles  
M. Pascual-Alonso, G.C. Miranda-De La Lama, W. Sepúlveda, L. Aguayo-Ulloa, M. Villarroel,  
J.A. Abecia and G.A. María

Effects of genetic selection and production system on sheep reproduction rates and welfare  
D. Gavojdian, I. Patras, G. Flutur and S. Kusza

Poster Session 73

Heat stress and PUFA in the diet of sheep: an ex vivo study  
M.G. Ciliberti, M. Albenzio, C. Inghese, R. Mancino, R. Marino, A. Santillo and M. Caroprese

Influence of metabolic status to milk yield  
M. Vlček and R. Kasarda

Session 74. Equine aging and end of life

Date: Thursday 1 September 2016; 14:00 – 18:00  
Chair: A.S. Santos / R. Evans

Theatre Session 74

invited Diseases of the older horse from a genetic point of view  
A. Pacholewska and V. Gerber

invited Nutrition of old horses  
S.L. Ralston
Body condition and location of fat stores in the aging horse  
*S.J. Wood, E. Allen, A. Corr, M. Lee and A. Magee*

Long-term changes of bone ultrasound measurements and metabolic indicators in the Lusitano horse  
*M.J. Fradinho, L. Mateus, R.J.B. Bessa, R.M. Caldeira and G. Ferreira-Dias*

Performing good death for animal companions  
*invited N. Schuurman*

Equine passports and end of life decisions: have we produced a welfare crisis?  
*S. Schofield and C. Brigden*

Usefulness of fallen equine data in describing quantitative mortality in France  
*J. Tapprest, M. Borey, X. Dornier, E. Morignat, D. Calavas, P. Hendrikx, B. Ferry and C. Sala*

**Poster Session 74**

Survey on equine hoof costs in Switzerland  
*A. Estermann, S. Wägeli, C. Kopp, B. Durgiai, F. Kägi and C. Herholz*

T waves and QT intervals in the ECG of Standardbred horses  
*E. Preiss and P.W. Physick-Sheard*