

# ONTARIO SMALL RUMINANT VETERINARY CONFERENCE

## SPEAKERS BY THEME AND DAY – ACCEPTED PAPERS - DRAFT

MONDAY JUNE 17, 2019

### WILLIAM MACTAGGART MEMORIAL PLENARY TALK:

SHEEP & GOAT ANIMAL HEALTH RESEARCH IN CANADA - CURRENT STATUS, GAPS AND FUTURE DIRECTIONS

DR. PAULA MENZIES, Department Population Medicine, U. of Guelph, Canada

### CONTROL OF LAMENESS IN SHEEP AND GOATS

#### KEYNOTE: LAMENESS OF SHEEP AND GOATS

DR. JENNIFER DUNCAN, Institute of Veterinary Science, U. of Liverpool, UK

#### ORAL PRESENTATIONS:

BUSIN, V. U. of Glasgow, Scotland, UK	Radar sensing as a novel tool to detect lameness in sheep.
KRAFT, AF. U. of Bern, Switzerland	The incidence of <i>Dichelobacter nodosus</i> in clinically footrot-free sheep flocks: A comparison of elimination strategies.
SMITH MC. Cornell U., Ithaca New York	Elbow osteoarthritis in goats.
WOLF, Cindy. U. of Minnesota, USA	Effective control of rampant footrot in an accelerated lambing flock.
ZANOLARI, P. U. of Bern, Switzerland	<i>Dichelobacter nodosus</i> in sheep, cattle, goats and South American camelids in Switzerland - assessing prevalence in potential hosts in order to design targeted disease control measures.

### ADVANCES IN THE DIAGNOSIS AND CONTROL OF GASTROINTESTINAL NEMATODE PARASITES

#### KEYNOTE: CONTROLLING GASTROINTESTINAL NEMATODE PARASITISM IN SHEEP AND GOATS – THE ROLE OF NEW TECHNOLOGIES

DR. JOHN GILLEARD, Department of Comparative Biology and Experimental Medicine, Faculty of Veterinary Medicine, U. of Calgary

#### ORAL PRESENTATIONS:

BORKOWSKI, E. Department Pathobiology, U. of Guelph	Correlation of salivary antibody to carbohydrate larval antigen (CarLA®) with parasitism in Ontario sheep.
BORKOWSKI, E. Department Pathobiology, U. of Guelph	Associations between gastrointestinal nematode parasitism, growth and reproduction in Ontario ewe lambs.
DIXON, S. Centre for Genetic Improvement of Livestock, U. of Guelph	Transcriptomic analysis to identify potential candidate genes regulating host response to gastrointestinal nematodes in Ontario grazing sheep.
RODEN, Eva. U. of Veterinary Medicine, Hannover Germany	From Science to Stable-Sustainable deworming in practice.
SARGISON, N. U. of Edinburgh, Scotland, UK	Conjunctival mucous membrane colour (FAMACHA® score) as an index for the health of peri-urban smallholder goats in southern Malawi.

SARGISON, N. U. of Edinburgh, Scotland, UK	Development of molecular tools to identify a genetic locus associated with macrocyclic lactone anthelmintic resistance in <i>Haemonchus contortus</i> .
SARGISON, N. U. of Edinburgh, Scotland, UK	Use of molecular tools to evaluate risk factors for the emergence and spread of anthelmintic resistance in ruminant livestock.
UEHLINGER, F.D. Western College of Veterinary Medicine, U. of Saskatchewan	Predominant infection with <i>Haemonchus contortus</i> and widespread anthelmintic treatment failure in Saskatchewan sheep flocks.
UEHLINGER, F.D. Western College of Veterinary Medicine, U. of Saskatchewan	Metabolism of levamisole in sheep to compounds of human health concern.

#### POSTER PRESENTATIONS

BELANGER, D. U. of Montreal, Quebec	Survey of practices, perceptions and attitudes in sheep producers, veterinary practitioners and advisers relative to integrated management of gastrointestinal parasites in sheep flocks.
RIOUX, G. Centre d'Expertise en Production Ovine du Québec, Quebec	integrated approach of gastrointestinal parasites in small ruminants flocks of Quebec, Canada.
SARGISON, N. U. of Edinburgh, Scotland UK	Smallholder education as a route to improved productivity: gastrointestinal nematode control in goats on the plains of Assam, North East India.
SUAREZ-VEGA, A. Centre for Genetic Improvement of Livestock, U. of Guelph	Identification of differentially expressed lncRNAs linked to gastrointestinal nematode infection in variable stress-responder grazing sheep.

#### ICEBERG DISEASES OF ADULT SHEEP AND GOATS: CONTROL/ERADICATION/STATUS PROGRAMMES

#### KEYNOTE: ICEBERG DISEASE CONTROL IN SHEEP AND GOATS

**DR. JULIE ARSENAULT**, Département de Pathologie et Microbiologie, Faculté de Médecine Vétérinaire, U. de Montréal

#### ORAL PRESENTATIONS

BERKE, O. Department Population Medicine, U. of Guelph	Scrapie prevalence in Canadian sheep and goats (2010 – 2016).
SCOTT, P.R. Capital Veterinary Services, Haddington Scotland	Prevalence, clinical significance and control of respiratory lesions in adult sheep.
WINDSOR, PA. U. of Sydney, Australia	Increasing the adoption of persistent vaccination for paratuberculosis control.
COUSENS, C. Moredun Research Institute, Scotland UK	Control of ovine pulmonary adenocarcinoma using transthoracic ultrasonography.
CZOPOWICZ, M. Wydział Medycyny Weterynaryjnej, Warsaw Poland	Current epidemiological situation of CAE in Poland.
HUGHES, K. Department of Veterinary Medicine, U. of Cambridge, UK	Clinical, pathological and immunohistochemical findings in a case of multicentric B cell lymphoma in a Jacob sheep.

KABA, J. Wydział Medycyny Weterynaryjnej, JNEJ, Warsaw Poland	Is CAE control in a herd worth farmer's while? Conclusions from twenty year of observations.
LACASTA, D. Veterinary Faculty of Zaragoza, Spain	Study of the main pathologies found in culling sheep with special attention to the respiratory system.
PELKMANS, J. Department Population Medicine, U. of Guelph	Risk-based surveillance of scrapie towards eradication from the Canadian national small ruminant herd.
PRINS, S. GD Animal Health, Deventer, the Netherlands	Ovine enzootic nasal adenocarcinoma.
SCOTT, P.R. Capital Veterinary Services, Haddington Scotland	Control of ovine pulmonary adenocarcinoma using bi-annual whole flock trans-thoracic ultrasound examination following its sudden appearance in a pedigree 1,800 ewe flock in the UK.

#### POSTER PRESENTATIONS

COUSENS C. Moredun Research Institute, Scotland UK	Gross pathology of ovine pulmonary adenocarcinoma.
SCOTT, PR. Capital Veterinary Services, Haddington Scotland	Disease prevalence and farmers' commitment to a whole flock trans-thoracic ultrasound screening programme to control ovine pulmonary adenocarcinoma.
WOLF, C. U. of Minnesota, USA	Maintaining flock genetics while eradicating Ovine Progressive Pneumonia Virus.

#### PERIPARTUM, METABOLIC AND NUTRITIONAL DISEASES

#### KEYNOTE: NUTRITIONAL AND METABOLIC DISEASES OF THE PERIPARTURIENT AND LACTATING SMALL RUMINANT

**DR. ROBERT J. VAN SAUN**, Department of Veterinary and Biomedical Sciences, Pennsylvania State College of Agricultural Sciences

#### ORAL PRESENTATIONS

TROTTIER, K. Department of Animal Biosciences, U. of Guelph	Determining the ideal forage : concentrate ratio for feedlot lambs.
VAN SAUN, R.J. Pennsylvania State College of Agricultural Sciences, USA	Use of a Particle Separator to Adjust Goat Diets.
SCHARKO, P.B. Clemson U., Columbia South Carolina, USA	Copper toxicosis in goats - Case Summaries.

#### POSTER PRESENTATIONS

MUSTONEN, E. U. of Helsinki, Finland	Biochemical and hematologic reference values for pregnant Finnsheep ewes.
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## USING GENETIC TOOLS TO IMPROVE DISEASE RESISTANCE

### ORAL PRESENTATIONS

BOAREKI, M.N. Department of Animal Biosciences, U. of Guelph	Predicting Genotypes at a Single Locus in Ungenotyped Sheep Animals Using Linear Mixed Model (to be delivered on Tuesday, June 18)
NAYLOR, D. Department of Animal Biosciences, U. of Guelph	Exploring the potential of increased stress resilience in sheep with a novel health phenotype

## TUESDAY JUNE 18, 2019

### PLENARY: ERADICATING THE SCOURGE OF PESTE DES PETITS RUMINANTS FROM THE WORLD

**DR. FELIX NJEUMI**, UN FAO OIE Peste des Petits Global Eradication Program, Rome Italy.

## IMPROVING LAMB AND KID SURVIVAL / DISEASE CONTROL FOR YOUNGSTOCK

### KEYNOTE: NEONATAL SMALL RUMINANT SURVIVAL IN INTENSIVE REARING CONDITIONS

**DR. CATHY BAUMAN**, Department Population Medicine, Ontario Veterinary College, U. of Guelph

### KEYNOTE: LAMB SURVIVAL IN EXTENSIVE OPERATIONS

**DR. ROBERT SUTER**, Senior Veterinary Officer, Agriculture Victoria, Australia

### ORAL PRESENTATIONS

ALLWORTH, MB. Charles Stuart U., Australia	Improving lamb survival - the role of calcium.
KIM, J. Department Population Medicine, U. of Guelph, Canada	Investigating dairy goat kid mortality and associated risk factors: a scoping review.
POLLACK, J. LFB-USA, Massachusetts, USA	Supplemental iron-dextran injections to control anemia in pre-weaned goat kids.
RATSEP, E. Department Pathobiology, U. of Guelph, Canada	Causes of neonatal kid mortality in Ontario dairy goats.
SUTER, R. Agriculture Victoria, Australia	Novel approaches to improving perinatal lamb survival in Australian sheep flocks.
SVENSGAARD, H.B. Howden, East Yorkshire, UK	How many factors affect lamb IgG uptake?
SWINSON, V. APHA, Thirsk, North Yorkshire, UK	An investigation of cases of <i>Streptococcus dysgalactiae</i> infectious arthritis in lambs in one large flock.
VAN SAUN, R.J. Pennsylvania State U., USA	Relationships between colostrum consumption and kid IgG status.
WINDSOR, Peter A. U. of Sydney, Australia	Importance and approach to investigating congenital disorders in small ruminants.
CRAWFORD, RG. Dufferin Veterinary Services, Canada	Environmental and management effects on the prevalence of lung condemnation at slaughter.

PRINS, S. GD Animal Health, Deventer, the Netherlands	Lameness in dairy goat kids
CRAWFORD, RG. Dufferin Veterinary Services, Canada	Adapting positive pressure tube and fan ventilation designs for sheep barns and nursery rooms.
CRAWFORD, RG. Dufferin Veterinary Services, Canada	Gross, histological, and culture results from lamb lungs condemned at slaughter.
HANCOCK, J. Picton Veterinary Services, Canada	<i>Fascioloides magna</i> causing mortality in lambs.
KIM, J. Department Population Medicine, U. of Guelph, Canada	A comparison of radial immunodiffusion, ELISA, and brix refractometer for the quantification of immunoglobulin G in caprine colostrum.
KIM, J. Department Population Medicine, U. of Guelph, Canada	Investigating kid mortality on Ontario dairy goat farms.

#### POSTER PRESENTATIONS

MENDES L.C.N.Sao Paulo State U., Brazil	Standardization of maximum ocular temperature in lambs using thermal Flir® camera of the Caterpillar® S60 smartphone
RIOUX, G. Centre d'expertise en production ovine du Québec, Quebec	Optimizing food rations for prolific ewes at the end of the pregnancy period and new born lamb management to reduce neonatal mortality rate
VAN SAUN, R.J. Pennsylvania State U., USA	Use of the Brix refractometer in assessing goat colostrum
LACASTA, D. Universidad de Zaragoza, Spain	Impact of stress on health status and production in fattening lambs

#### IMPROVING THE WELFARE OF SHEEP AND GOATS

#### KEYNOTE: WELFARE RESEARCH OF GOATS

**DR. GOSIA ZOBEL**, Animal Behaviour and Welfare, AgResearch, Ruakura Research Centre, Hamilton, New Zealand

#### ORAL PRESENTATIONS

ALLWORTH, MB. Charles Stuart U., Australia	Pain Relief products in sheep – an Australian perspective.
KNAUER, W. U. of Minnesota, USA	Effects of multimodal pain management strategies on acute pain behavior and physiology in disbudded neonatal goat kids.
RAU, J. Ontario Veterinary College, U. of Guelph, Canada	Implementation of a captive bolt training course for sheep and goat farmers.
SPOONER, J. National Farm Animal Council, Canada	Progress update on revisions to the goat Code of Practice.
WINDSOR, P. U. of Sydney, Australia	Increasing adoption of pain relief for livestock.
ZANOLARI, P. U. of Bern, Switzerland	Evaluation of anaesthesia and analgesia quality during disbudding of goat kids by certified Swiss farmers.

## DELIVERING FLOCK / HERD HEALTH PROGRAMMES THAT MAKE A DIFFERENCE

### KEYNOTE: PROVIDING HEALTH MANAGEMENT SERVICES TO SMALL RUMINANT CLIENTS

**DR. YOAV ALONY-GILBOA**, Specialist Small Ruminant Health & Production, Friars Moor Livestock Health, Sturminster Newton, Dorset UK

### ORAL PRESENTATIONS

ANDERSON, S.T. Bioservices, Moredun Group, UK	An overview of current small-ruminant disease research and animal facilities at Moredun Research Institute, UK.
BUSCHBECK, C. Markdale Veterinary Services, Ontario Canada	The Ontario Sheep AI Industry - a practitioners view.
COOPER, J. Department Population Medicine, U. of Guelph	Small ruminant veterinarians' and producers' perceptions of working relationships and use of veterinary services in Ontario, Canada.
HAMER, K. U. of Glasgow, Scotland, UK	On-line farmer resource for abortion control.
HAMER, K. U. of Glasgow, Scotland, UK	Resources for pre-lambing farmer training.
PAIBOMESAI, M. Ontario Ministry of Agriculture, Food & Rural Affairs, Canada	Body condition score impact on Ontario meat and dairy sheep production .
SPINATO, M. Animal Health Laboratory, U. of Guelph, Canada	Distance support for on-farm investigation of adult goat mortalities.
TAN, S. Canadian Food Inspection Agency, Government of Canada	Access to vaccines for small ruminants and the Canadian Centre for Veterinary Biologic's role.
TODD, K. Ontario Animal Health Network, U. of Guelph, Canada	The evolution of the Ontario Animal Health Network in small ruminant health and disease surveillance.

### POSTER PRESENTATIONS

SARGISON, N. U. of Edinburgh, Scotland UK	Farming practices and attitudes towards livestock ownership and disease risks in southern Malawi.
SARGISON, N. U. of Edinburgh, Scotland UK	Weight estimation from body measurements in indigenous village goats in the Golaghat and Nagaon districts of Assam, India.
SPINATO, M. Animal Health Laboratory, U. of Guelph, Canada	Distance support for on-farm investigation of adult sheep mortalities.
VOIGT, K. Ludwig Maximilians U. Munich Germany	Evaluation of a bovine visual pregnancy test for the detection of pregnancy-associated-glycoproteins in sheep.

## WEDNESDAY, JUNE 19, 2019

### PLENARY: THE 2001 FOOT & MOUTH OUTBREAK IN THE UK. WHAT IS HAS TAUGHT US ABOUT THE THREAT OF FOREIGN ANIMAL DISEASES

**MR. SAM MANSLEY**, Auchinraith, Kinnordy Road, Kirriemuir, Angus UK.

## IMPROVING UDDER HEALTH AND MILK QUALITY

### KEYNOTE: UDDER HEALTH OF DAIRY SMALL RUMINANTS

**DR. GERRIT KOOP**, Department of Farm Animal Health, Faculty of Veterinary Medicine, Utrecht U., the Netherlands

### ORAL PRESENTATIONS

HUGHES, K. Department Veterinary Medicine, U. of Cambridge, UK	The multifaceted roles of STATs in ovine postnatal mammary gland development and mastitis.
MUSTONEN, E. U. of Helsinki, Finland	Prevalence of subclinical intramammary infections in Finnish landrace goats.
BUSCHBECK, C. Markdale Veterinary Services, Ontario Canada	Outbreak of hard udders in a sheep flock.
BERNEIR GOSSELIN, V. U. of Montreal, Quebec, Canada	Advances in understanding of epidemiology of sub-clinical staphylococcus mastitis in dairy goats.

### POSTER PRESENTATION

RIOUX, G. Centre D'Expertise en Production Ovine du Québec, Quebec.	Prevalence and risk factors of subclinical mastitis, and antimicrobial resistance in associated Mannheimia haemolytica isolates, in meat-producing sheep flocks in Quebec, Canada .
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## IMPROVING LAMB AND KID SURVIVAL / DISEASE CONTROL FOR YOUNGSTOCK

### ORAL PRESENTATIONS

WAINE, K. U. of Nottingham, UK	Anatomy and pathology of the Texel sheep larynx
ZHANG, K. Research Institute of Chinese Academy of Agriculture Science, China	Orf virus VIR antagonizes p53-mediated antiviral effects to facilitate viral replication.
EMSEN, E. Ataturk U., Turkey	Commercial lamb production with new synthetic prolific dam line (ANAROM) in different region of Turkey.
EMSEN, E. Ataturk U., Turkey	Survival rates and growing performance of lambs born from assisted reproductive technologies.

## ZOONOTIC AND ABORTION DISEASES OF SMALL RUMINANTS

### ORAL PRESENTATIONS

INANGOLET, F.O. Moroto District Government, Uganda, Africa	The sero-epidemiology of ovine brucellosis in Karamoja region, Uganda.
ISLAM, S. Institute of Epidemiology, Disease Control and Research, Dhaka, Bangladesh	Seroprevalence of Q fever in non-descriptive sheep of Bangladesh.
LEBOEUF, A. Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, Quebec, Canada	Prevention and surveillance program for small ruminant abortions in Quebec, Canada .

VELLEMA, P. GD Animal Health, Deventer, the Netherlands      Salmonellosis in small ruminants.

ROWE, J.D. U. of California, Davis, California USA      Caprine Uterine Amyloid Syndrome: An emerging cause of abortion and fetal death.

#### POSTER PRESENTATION

LEAHY, E. U. of Edinburgh, Edinburgh, Scotland, UK      Analysis of risk factors for *Brucella* and *Coxiella* infection among small ruminants in Eastern India.

#### CONTROL OF COCCIDIOSIS IN LAMBS AND KIDS

#### ORAL PRESENTATIONS

REJMAN, E. Department Pathobiology, U. of Guelph, Canada      Something to ruminate about: A novel molecular assay for identifying *Eimeria* species infecting domestic sheep and goats.

STUEN, S. Norwegian U. of Life Sciences, Norway      Toltrazuril resistance in a field isolate of ovine *Eimeria* spp.

#### VECTOR-BORNE DISEASES OF SHEEP OR GOATS

#### ORAL PRESENTATIONS

ALLEN, S. Department Pathobiology, U. of Guelph, Canada      Risk assessment for the incursion and establishment of orbiviruses in Ontario, Canada.

LEWIS, C. Fields Farm, Audlem, Cheshire, UK      The establishment of bluetongue as an endemic disease in Europe.

STUEN, S. Norwegian U. of Life Sciences, Norway      Ticks and tick-borne infections in the small ruminant industry.

#### POSTER PRESENTATIONS

HILKE, J. Clinic for Swine and Small Ruminants, U. of Veterinary Medicine Hanover, Hannover, Germany      Neutralising antibody persistence in sheep 5-6.5 years after vaccination with inactivated Bluetongue Virus 8 vaccines.