

**NMC 49<sup>th</sup> Annual Meeting  
January 31-February 3, 2010  
Albuquerque, New Mexico**

**Titles of Posters to be Presented at the Technology Transfer Session**

1. Vitamin D Signaling in the Bovine Mammary Gland is part of the Innate Immune Response to Bacterial Pathogens  
*Corwin D. Nelson<sup>1,2</sup>, Timothy A. Reinhardt<sup>2</sup>, and John D. Lippolis<sup>2</sup>, <sup>1</sup>Iowa State University, Ames, Iowa, USA, <sup>2</sup>National Animal Disease Center, United States Department of Agriculture, Ames, Iowa, USA*
2. Cows Genetically More Susceptible to Mastitis Have Altered Neutrophil Migration Patterns  
*Alexandra A. Elliott, J. Dunlap, S. Minkin, J. Biggerstaff, G.M. Pighetti, University of Tennessee, Knoxville, Tennessee, USA*
3. Variation in Daily Shedding Pattern of *Staphylococcus aureus* in Naturally Occurring Intramammary Infections  
*Jennifer Walker, Päivi Rajala-Schultz, Fred DeGraves, The Ohio State University, Columbus, Ohio, USA*
4. Evaluation of the Risk of Transmitting *Staphylococcus aureus* Strains Between Replacement Heifers Through Commingling at a Heifer Rearing Facility  
*Michaela A. Kristula, Marie-Eve Fecteau, Billy I. Smith, Sheri Young, Shelley C. Rankin, University of Pennsylvania School of Veterinary Medicine, Kennett Square, Pennsylvania, USA*
5. Association of Coagulase Negative Staphylococcal Species and Milk Somatic Cell Count of Cows from the Canadian National Cohort of Dairy Farms  
*J. Perry<sup>1</sup>, JR Middleton<sup>1</sup>, S. Dufour<sup>2,4</sup>, D. Scholl<sup>2,4</sup>, C. Calloway<sup>3,4</sup>, S. Anderson<sup>3,4</sup>, I. Dohoo<sup>3,4</sup>, <sup>1</sup>University of Missouri, <sup>2</sup>University of Montréal, <sup>3</sup>Atlantic Veterinary College, <sup>4</sup>CBMRN, <sup>1</sup>Columbia, Missouri, USA, <sup>2,4</sup>Montréal, Québec, Canada, <sup>3</sup>Charlottetown, PEI, Canada*
6. The Impact of Forestripping and Lag-time on Holstein Cows Milked Thrice Daily  
*Rick Watters<sup>1</sup>, Norm Schuring<sup>2</sup>, Hollis Erb<sup>1</sup>, Ynte Schukken, David Galton<sup>1</sup>, <sup>1</sup>Cornell University, Ithaca, New York, USA, <sup>2</sup>GEA Farm Technologies, Naperville, Illinois, USA*
7. Factors Associated with Coliform Count in Raw Bulk Milk  
*Jose C. F. Pantoja, Marcelo A. Silva, Douglas J. Reinemann and Pamela L. Ruegg, University of Wisconsin, Madison, Wisconsin, USA*
8. Assessment of Milking Unit Alignment  
*Marcelo A. Silva, Ana C.O. Rodrigues, Pamela L. Ruegg, University of Wisconsin, Madison, Wisconsin, USA*
9. Utility of Pre-partum Parameters for Predicting Intramammary Infection at Calving in First Calf Heifers on a Grazing Dairy  
*Davin R. Ringen, John R. Middleton and Tessa S. Marshall, University of Missouri, College of Veterinary Medicine, Columbia, Missouri, USA*
10. The Impact of Administering Antibiotics to Subclinically Infected Quarters on Somatic Cell Counts and Udder Health  
*Diane M. Tearney, David R. Bray and Roger P. Natzke, University of Florida, Gainesville, Florida, USA*
11. Using the Data of the Milk Flow Curve to Evaluate Milking Performance in Southeastern Sicily Dairy Farms  
*M. Gambina<sup>1</sup>, A. Difalco<sup>1</sup>, G. Licitra<sup>1,2</sup>, <sup>1</sup>CoRFiLaC, Regione Siciliana, Ragusa, Italy, <sup>2</sup>D.A.C.P.A., Università di Catania, Italy*
12. The Effect of Over-Pressure on Teat-End Condition  
*Aaron K. Kochman and Sara Little, Lauren AgriSystems, New Philadelphia, Ohio, USA*

13. Mamyzin Milk Quality Award: 10 Years of Experience  
*Martin Pol<sup>1</sup>, Mario H Sirvén<sup>2</sup>, <sup>1</sup>Lactodiagnostico Sur, Olivos, Buenos Aires, Argentina, <sup>2</sup> MHS & Asociados, Buenos Aires, Argentina*
14. Risk Factors for Clinical Mastitis Outcomes  
*Martin Pol, Cecilia Baumberger, Javier Chaves, Lactodiagnostico Sur, Olivos, Buenos Aires, Argentina*
15. Using Automated Internet Systems in Milk Quality Monitoring  
*Mark L. Kinsel<sup>1</sup> and Jeffrey K. Reneau<sup>2</sup>, <sup>1</sup>AgriMetrica LLC, Ellensburg, Washington, USA, <sup>2</sup>University of Minnesota, St. Paul, Minnesota, USA*
16. Field Evaluation of the Pathoproof Mastitis PCR Assay for the Detection of *Staphylococcus aureus* Infected Cows Using DHI Samples  
*Charlotte Friendship<sup>1</sup>, David Kelton<sup>1</sup>, Deb van de Water<sup>2</sup>, Durda Slavic<sup>3</sup>, Mikko Koskinen<sup>4</sup>, <sup>1</sup>University of Guelph, Guelph, Ontario, Canada, <sup>2</sup>CanWest Dairy Herd Improvement, Guelph, Ontario, Canada, <sup>3</sup>Animal Health Laboratory, University of Guelph, Guelph, Ontario, Canada, <sup>4</sup>Finnzymes Oy, Keilaranta, Espoo, Finland*
17. Bacterial Counts and Their Association with Bulk Tank Milk Standard Plate Count  
*Julia Maito; Mercedes Gavidia; Liliana Tirante, Lactodiagnostico Sur, Olivos, Buenos Aires, Argentina*
18. The Effects of Inoculum Volume and Extended Sampling on the Microbiological Detection of Naturally Occurring *Staphylococcus aureus* Intramammary Infections  
*Jennifer Walker, Päivi Rajala-Schultz, Fred DeGraves, The Ohio State University, Columbus, Ohio, USA*
19. Somaticell: an Evaluation of this Somatic Cell Count Method in Different Situations  
*Daniel da Silva Penachio, Diego Borin Nóbrega, Felipe de Freitas Guimarães, Hélio Langoni, São Paulo State University, Botucatu, São Paulo, Brazil*
20. Isolation of *Yersinia enterocolitica* and Other Pathogens in Bulk Tanks of Dairy Farms Located in São Paulo State, Brazil  
*Simone Baldini Lucheis<sup>1</sup>, Diego Borin Nóbrega<sup>2</sup>, Anna Valezka Vicente de Sá<sup>2</sup>, Hélio Langoni<sup>2</sup>, <sup>1</sup>Agência Paulista de Tecnologia dos Agronegócios – APTA Centro-Oeste – Unidade de Pesquisa de Bauru – São Paulo, Brazil, <sup>2</sup>São Paulo State University, São Paulo, Brazil*
21. Staphylococcus Coagulase Negative and Other Mastitis Pathogens in Different Dairy Herds in São Paulo State, Brazil  
*Simone Baldini Lucheis<sup>1</sup>, Diego Borin Nóbrega<sup>2</sup>, Anna Valezka Vicente de Sá<sup>2</sup>, Hélio Langoni<sup>2</sup>, <sup>1</sup>Agência Paulista de Tecnologia dos Agronegócios – APTA Centro-Oeste – Unidade de Pesquisa de Bauru – São Paulo, Brazil, <sup>2</sup>São Paulo State University, São Paulo, Brazil*
22. Real-Time QPCR-based DNA Mastitis Analysis Using the Preserved DHIA Sample  
*Jere High, Lancaster Dairy Herd Improvement Association, Manheim, Pennsylvania, USA*
23. PathoProof Mastitis PCR Assay and Sensitivity Validation of a New Test Kit for Rapid Identification of *Staphylococcus aureus*, *Streptococcus agalactiae* and *Mycoplasma bovis* From Bovine Milk  
*M. Silvennoinen, J. Holopainen & M.T. Koskinen, Finnzymes Diagnostics, Espoo, Finland*
24. Specificity and Sensitivity Study of DairyGUARD™ SensorArray Platform for the Detection of Mastitis Pathogens  
*N. Smit<sup>1</sup>, H. Klapproth<sup>1</sup>, P. Piunno<sup>1</sup>, H. Frey<sup>1</sup>, R. Card<sup>2</sup>, P. Wakeley<sup>2</sup>, B. Lam<sup>3</sup>, and S. Shamim<sup>3</sup>, <sup>1</sup>Safeguard Biosystems, Inc., Toronto, Canada, <sup>2</sup>Veterinary Laboratory Agency, New Haw, United Kingdom, <sup>3</sup>Norgen Biotek Corp., Thorold, Ontario, Canada*
25. Development of Electrochemical Sensor for Detecting Mastitis Milk  
*S. Ayano<sup>1</sup>, Y. Nikaido<sup>1</sup>, T. Nishi<sup>1</sup>, K. Oka<sup>1</sup>, K.Okada<sup>2</sup>, J. Fukuda<sup>2</sup>, H. Suzuki<sup>2</sup>, <sup>1</sup>Kurashiki Research Center, Kuraray Co., LTD, Okayama, Kurashiki, Japan, <sup>2</sup>Graduate School of Pure and Applied Science, University of Tsukuba, Tsukuba, Ibaraki, Japan*

26. A New Method of Analyzing Daily Milk Production and Electrical Conductivity to Predict Disease Onset  
*Jeffrey K. Reneau<sup>1</sup>, Joanna M. Lukas<sup>1</sup>, and Richard L. Wallace<sup>2</sup>, <sup>1</sup>University of Minnesota, St. Paul, Minnesota, USA, <sup>2</sup>University of Illinois, Champaign, Illinois, USA*
27. Use of the PortaSCC<sup>®</sup> Goat Milk Test for On-farm SCC Monitoring  
*Wai Tak Law and Ayoma R. Finlay, PortaCheck, Inc., Moorestown, New Jersey, USA*
28. Detection of *Mycoplasma bovis* from Milk Samples by Real-time Polymerase Chain Reaction  
*Sukolrat Boonyayatra<sup>a</sup>, John M. Gay<sup>a</sup>, Thomas E. Besser<sup>a</sup>, Ashish Sawant<sup>a</sup>, Ziv Raviv<sup>b</sup> and Larry K. Fox<sup>a</sup>, <sup>a</sup>College of Veterinary Medicine, Washington State University, Pullman, Washington, <sup>b</sup>College of Veterinary Medicine, Ohio State University, Columbus, Ohio, USA*
29. Use of Incubation and Petrifilm to Enhance Recovery of *Staphylococcus aureus* from Cases of Subclinical Mastitis  
*Leane Oliveira, Ana C.O. Rodrigues, Carol Hulland and Pamela L. Ruegg, University of Wisconsin, Madison, Wisconsin, USA*
30. Efficacy of Two Chlorine Dioxide-Based Barrier Teat Disinfectants  
*Mario G. Lopez Benavides<sup>1</sup>, Susan I. Headrick<sup>2</sup>, Mark J. Lewis<sup>2</sup>, Barbara E. Gillespie<sup>2</sup>, Lisa M. Bauer<sup>3</sup>, David Johnson<sup>3</sup>, Ken Lamar<sup>3</sup>, Camelia Traistaru<sup>1</sup>, Fahim Ahmed<sup>1</sup>, Thomas Hemling<sup>1</sup> and Stephen P. Oliver<sup>2</sup>, <sup>1</sup>DeLaval, Kansas City, Missouri, USA, <sup>2</sup>University of Tennessee, Knoxville, Tennessee, USA, <sup>3</sup>Middle Tennessee Research and Education Center, Spring Hill, Tennessee, USA*
31. Analysis of the Influence of Milk Production and Number of Lactation in Bovine Mastitis Caused by Environmental Pathogens in a Selected Dairy Farm  
*Hélio Langoni, Diego Borin Nóbrega, Benedito Donizete Menozzi, São Paulo State University, Botucatu, São Paulo, Brazil*
32. Intermittent Milking, Milk Yield at Dry-Off and Intramammary Infections at Subsequent Calving  
*Päivi J. Rajala-Schultz<sup>1</sup>, Kari A. Newman<sup>1</sup>, Fred J. DeGraves<sup>1</sup>, Jeffrey Lakritz<sup>2</sup>, Departments of <sup>1</sup>Veterinary Preventive Medicine and <sup>2</sup>Veterinary Clinical Sciences, College of Veterinary Medicine, The Ohio State University, Columbus, Ohio, USA*
33. Antimicrobials Sensitivity Profile and Detection of the Beta-Lactamase in Strains of *Staphylococcus* spp. Isolated in Cases of Bovine Mastitis  
*Anna V. V. Sá<sup>1</sup>, Felício Garino Jr.<sup>1</sup>, Luiz F. A. Trevisan<sup>1</sup>, Expedito K. A. Camboim<sup>1</sup>, Arthur P. Almeida<sup>1</sup>, Simone B. Lucheis<sup>2</sup>, <sup>1</sup>Academic Unity of Veterinary Medicine, Centre of Health and Rural Technology, UFCG, <sup>2</sup>Agência Paulista de Tecnologia dos Agronegócios – APTA Centro-Oeste – Unidade de Pesquisa de Bauru – São Paulo, Brazil*
34. Correlation of Mastitis Occurrence and Teat Callosity Score  
*Marcela de Pinho Manzi, Patrícia Yoshida Faccioli, Diego Borin Nóbrega, Marcella Zampoli Troncarelli, Benedito Donizete Menozzi, Helio Langoni, São Paulo State University, Botucatu, Sao Paulo, Brazil*
35. Comparison of Mastitis Behavior in Holstein and Jersey Cows in Two Different Seasons of the Year  
*Diego Borin Nóbrega<sup>1</sup>, Felipe de Freitas Guimarães<sup>1</sup>, Patrícia Yoshida Faccioli<sup>1</sup>, Simone Baldini Lucheis<sup>2</sup>, Hélio Langoni<sup>1</sup>, <sup>1</sup>São Paulo State University, Botucatu, São Paulo, Brazil, <sup>2</sup>Agência Paulista de Tecnologia dos Agronegócios – APTA Centro-Oeste – Unidade de Pesquisa de Bauru – São Paulo, Brazil*
36. Subclinical Mastitis is Associated with a Reduced Development of Ovarian Follicles  
*M. Mahbubur Rahman<sup>1</sup>, Maria Mazzilli<sup>2</sup>, Georgja Pennarossa<sup>1</sup>, Tiziana A.L. Brevini<sup>1</sup>, Alfonso Zecconi<sup>2</sup>, Fulvio Gandolfi<sup>1</sup>, <sup>1</sup>DSA- Dept Animal Science, <sup>2</sup>DIPAV- Dept Animal Pathology, Hygiene and Vet Public Health, Università degli Studi di Milano, Milano, Italy*
37. Epidemiology of Intramammary Infection in 100 Herds Following Udder Health Control Program  
*Alfonso Zecconi, Maria Mazzilli, Renata Piccinini, DIPAV- Dept Animal Pathology, Hygiene and Vet Public Health, Università degli Studi di Milano, Milano, Italy*

38. Management Factors and Time to Clearance of Mycoplasma Mastitis: a Preliminary Report  
*V. Punyapornwithaya<sup>1</sup>, L.K. Fox<sup>1</sup>, D.D. Hancock<sup>1</sup>, G.M Gay<sup>1</sup>, and J.R. Alldredge<sup>2</sup>, <sup>1</sup>College of Veterinary Medicine, Washington State University, Pullman, Washington, USA, <sup>2</sup>Department of Statistics, Washington State University, Pullman, Washington, USA*
39. Efficacy of Two Chlorine Dioxide-Based Postmilking Teat Disinfectants  
*Mario Lopez Benavides<sup>1</sup>, Susan Headrick<sup>2</sup>, Mark Lewis<sup>2</sup>, Barbara Gillespie<sup>2</sup>, Hugh Moorehead<sup>3</sup>, J. David Plunk<sup>3</sup>, Camelia Traistaru<sup>1</sup>, Fahim Ahmed<sup>1</sup>, Thomas Hemling<sup>1</sup> and Stephen Oliver<sup>2</sup>, <sup>1</sup>DeLaval, Research and Development, Kansas City, Missouri, USA, <sup>2</sup>Department of Animal Science, The University of Tennessee, Knoxville, Tennessee, USA, <sup>3</sup>Dairy Research Education Center (DREC), Lewisburg, Tennessee, USA*
40. Does Norepinephrine Promote the Growth of Mastitis Causing *Escherichia coli*?  
*Preston H. Morris, M.L. Riggle-Moxley, Gina M. Pighetti, Department of Animal Science, The University of Tennessee, Knoxville, Tennessee, USA*
41. One Step Acid Cleaner For Efficient CIP Cleaning Applications  
*Fahim U. Ahmed, N. Camelia Traistaru, Mark Troupe, Thomas C. Hemling, DeLaval, Kansas City, Missouri, USA*
42. Evaluation of Efficacy of Pre-Milking Udder Preparations  
*I. Laquiere<sup>1</sup>; T.C. Hemling<sup>2</sup>; A.J. Bradley<sup>3</sup>, <sup>1,2</sup>DeLaval; Kansas City, Drongen, Belgium, and Kansas City, Missouri, USA, <sup>3</sup>University of Nottingham, Langford, Bristol, United Kingdom*
43. Clinical Effects and Economic Benefit of an Internal Teat Sealant Administered at Dry-Off  
*Paul Baillargeon<sup>1</sup>, Stephen LeBlanc<sup>2</sup>, <sup>1</sup>Pfizer Santé Animale, Kirkland, Quebec, Canada, <sup>2</sup>University of Guelph, Ontario, Canada*
44. Relationship Between Lying Behavior and Incidence of Intramammary Infection in Cows Milked in Automated Systems  
*Trevor J. DeVries<sup>1</sup>, Kenneth E. Leslie<sup>2</sup>, Herman W. Barkema<sup>3</sup>, Jack Rodenburg<sup>4</sup>, Guy Seguin<sup>5</sup>, <sup>1</sup>University of Guelph, Kemptville, Ontario, Canada; <sup>2</sup>University of Guelph, Guelph, Ontario, Canada; <sup>3</sup>University of Calgary, Calgary, Alberta, Canada; <sup>4</sup>DairyLogix Consulting, Woodstock, Ontario, Canada; <sup>5</sup>Dairy Farmers of Ontario, Casselman, Ontario, Canada*
45. Efficacy Evaluation of a New Vaccine Against Bovine Mastitis: Field Trial Results  
*Ricard March<sup>1</sup>, Antoni Prenafeta<sup>1</sup>, Marta Noguera<sup>1</sup>, Roger Guix<sup>2</sup>, Antoni Foix<sup>1</sup>, <sup>1</sup>Research and Development Department, HIPRA, <sup>2</sup>Marketing Department, HIPRA, Amer (Girona), Spain*
46. Implementation and Evaluation of a HACCP-based Approach to the Control of Mastitis on Irish Dairy Farms  
*L. Beekhuis<sup>1</sup>, C. Devitt<sup>2</sup>, L. O'Grady<sup>1</sup>, D.J. More<sup>1</sup>, P. Whyte<sup>1</sup>, M.L. Doherty<sup>1</sup>, <sup>1</sup>School of Agriculture, Food Science and Veterinary Medicine, University College Dublin, Belfield, Dublin, Ireland, <sup>2</sup>School of Applied Social Science, University College Dublin, Belfield, Dublin, Ireland*
47. Methods for Evaluating the Properties and Efficacy of Teat Dip Formulations Designed as Barriers to Microorganisms  
*Pasquale P. Vicario, Bing Wang, John Pascoe, Irina Grigorian, Zichun Lu, Megan DeRose and Silka von Dyck, Hydromer, Inc., Branchburg, New Jersey, USA*
48. Study of the Humoral Immunological Response After Vaccination With a *Staphylococcus aureus* Biofilm-Embedded Bacterin in Dairy Cows: Possible Role of the Exopolysaccharide Specific Antibody Production in the Protection From *Staphylococcus aureus* Induced Mastitis  
*Antoni Prenafeta<sup>1</sup>, Ricard March<sup>1</sup>, Antoni Foix<sup>1</sup>, Isidre Casals<sup>2</sup>, Llorenç Costa<sup>1</sup>, <sup>1</sup>Research and Development Department, HIPRA, Barcelona. Spain, <sup>2</sup>Serveis Científicotècnics de la Universitat de Barcelona, Unitat de Tècniques Separatives i Síntesi de Pèptids, Amer (Girona), Barcelona. Spain*
49. Efficacy of an *Escherichia coli* J5 Mastitis Vaccine in an Experimental Challenge Trial  
*A. Foix, A. Prenafeta, D. Torrents and R. March, Research and Development Department, Hipra, Amer (Girona), Spain*

50. Monitoring of the Efficacy of a Bio-hygienization Treatment on the Reduction of the Microbial Load in Cubicles with Mats of an Italian Dairy Herd

*Michela Favretti<sup>1</sup>, Paolo Moroni<sup>2</sup>, Valerio Bronzo<sup>2</sup>, Sergio Cavalli<sup>3</sup>, Andrea Zanierato<sup>3</sup>, <sup>1</sup>Istituto Zooprofilattico Sperimentale delle Venezie, San Donà di Piave (VE), Italy, <sup>2</sup>Dipartimento di Patologia Animale, Igiene e Sanità Pubblica Veterinaria, Università degli Studi di Milano (MI), Italy, <sup>3</sup>SOP srl, Busto Arsizio (VA), Italy*

51. Efficacy of a New UV-Based On-Farm Pasteurizer vs. a Standard Batch Pasteurizer in Bacteria-Seeded Milk and Colostrum

*Charles Gradle, GEA Farm Technologies, Inc., Romeoville, Illinois, USA*

52. Effect of Storage on Physical and Microbiological Features of Recycled Manure Solids

*C. Locatelli<sup>1</sup>, A. Casula<sup>1</sup>, S. Milesi<sup>1</sup>, A. Zanierato<sup>2</sup>, R. Varano<sup>2</sup>, P. Moroni<sup>1</sup>, L. Scaccabarozzi<sup>1</sup>, <sup>1</sup>University of Milan, Milan, Italy, <sup>2</sup>Animal Production Practitioner, Italy*

53. Use of Milk Lactose Concentration as an Indicator of Mastitis Following the Validation of a Novel In-Line Milk Analysis System Designed to Measure Milk Components

*Hayden Karp and Christina Petersson-Wolfe, Department of Dairy Science, Virginia Tech, Blacksburg, Virginia, USA*

54. Behavioural Changes of Dairy Cows During Drying-Off Using Abrupt Cessation of Milking

*Kimberley A. Painter, Elise H. Tatone, Ken E. Leslie, University of Guelph, Guelph, Ontario, Canada*