

Journal of Dairy Science

February 2008

Volume 91, Number 2

CONTENTS

INTERPRETIVE SUMMARIES.....	iv
NEWS AND ANNOUNCEMENTS.....	x
INVITED REVIEW:	
<i>Invited Review: Genes Involved in the Bovine Heat Stress Response</i> R. J. Collier, J. L. Collier, R. P. Rhoads, and L. H. Baumgard	445
DAIRY FOODS:	
The Effect of Refrigerated and Frozen Storage on Butter Flavor and Texture A. J. Krause, R. E. Miracle, T. H. Sanders, L. L. Dean, and M. A. Drake	455
Impact of Flavor Attributes on Consumer Liking of Swiss Cheese R. E. Liggett, M. A. Drake, and J. F. Delwiche	466
Effect of Elevated Temperature Storage on the Digestible Reactive Lysine Content of Unhydrolyzed- and Hydrolyzed-Lactose Milk-Based Products S. M. Rutherford and P. J. Moughan	477
Enantiomeric Fraction of Selected Chiral Polychlorinated Biphenyls in Cow, Goat, and Ewe Milk and Dairy Products by Heart-Cut Multidimensional Gas Chromatography: First Results L. R. Bordajandi and M. J. González	483
Enhanced Functionalities of Whey Proteins Treated with Supercritical Carbon Dioxide Q. Zhong and M. Jin	490
Probiotic Crescenza Cheese Containing <i>Lactobacillus casei</i> and <i>Lactobacillus acidophilus</i> Manufactured with High-Pressure Homogenized Milk P. Burns, F. Patrignani, D. Serrazanetti, G. C. Vinderola, J. A. Reinheimer, R. Lanciotti, and M. E. Guerzoni	500
Effects of the Concentration of Insoluble Calcium Phosphate Associated with Casein Micelles on the Functionality of Directly Acidified Cheese J. Choi, D. S. Horne, M. E. Johnson, and J. A. Lucey	513
A Study on the Kinetic Behavior of <i>Listeria monocytogenes</i> in Ice Cream Stored Under Static and Dynamic Chilling and Freezing Conditions M. Gougouli, A. S. Angelidis, and K. Koutsoumanis	523
<i>Kluyveromyces lactis</i> but Not <i>Pichia fermentans</i> Used as Adjunct Culture Modifies the Olfactory Profiles of Cantalet Cheese I. De Freitas, N. Pinon, J.-L. Berdagué, P. Tournayre, S. Lortal, and A. Thierry	531
PHYSIOLOGY AND MANAGEMENT:	
The Effect of Out-Wintering Pad Design on Hoof Health and Locomotion Score of Dairy Cows K. O'Driscoll, L. Boyle, P. French, and A. Hanlon	544
Molecular Subtyping of Mastitis-Associated <i>Klebsiella pneumoniae</i> Isolates Shows High Levels of Diversity Within and Between Dairy Herds G. G. Paulin-Curlee, S. Sreevatsan, R. S. Singer, R. Isaacson, J. Reneau, R. Bey, and D. Foster	554
Bacteriological Characteristics of <i>Staphylococcus aureus</i> Isolates from Humans and Bulk Milk E. Hata, K. Katsuda, H. Kobayashi, K. Nishimori, I. Uchida, M. Higashide, E. Ishikawa, T. Sasaki, and M. Eguchi	564

Effects of Sand and Straw Bedding on the Lying Behavior, Cleanliness, and Hoof and Hock Injuries of Dairy Cows M. Norring, E. Manninen, A. M. de Passillé, J. Rushen, L. Munksgaard, and H. Saloniemi	570
Periprandial Changes in Metabolite and Metabolic Hormone Concentrations in High-Genetic-Merit Dairy Heifers and Their Relationship to Energy Balance in Early Lactation A. R. G. Wylie, S. Woods, A. F. Carson, and M. McCoy	577
Effects of Milking Frequency on Phagocytosis and Oxidative Burst Activity of Phagocytes from Primiparous and Multiparous Dairy Cows During Early Lactation S. Llamas Moya, M. Alonso Gómez, L. A. Boyle, J. F. Mee, B. O'Brien, and S. Arkins.....	587
Stroking Different Body Regions of Dairy Cows: Effects on Avoidance and Approach Behavior Toward Humans C. Schmied, X. Boivin, and S. Waiblinger	596
Feeding High Proportions of Barley Grain Stimulates an Inflammatory Response in Dairy Cows D. G. V. Emmanuel, S. M. Dunn, and B. N. Ametaj	606
Genomic Typing of Enterococci Isolated from Bovine Mammary Glands and Environmental Sources C. S. Petersson-Wolfe, S. Adams, S. L. Wolf, and J. S. Hogan.....	615
Technical Indicators of Financial Performance in the Dairy Herd E. Kristensen, S. Østergaard, M. A. Krogh, and C. Enevoldsen.....	620
Systemic Treatment of Subclinical Mastitis in Lactating Cows with Penethamate Hydriodide O. Salat, F. Sérieys, B. Poutrel, L. Durel, and L. Goby	632
<i>Short Communication:</i> Insulin Alters Hepatic Progesterone Catabolic Enzymes Cytochrome P450 2C and 3A in Dairy Cows C. O. Lemley, S. T. Butler, W. R. Butler, and M. E. Wilson.....	641

NUTRITION, FEEDING, AND CALVES:

Effect of Feeding Propionibacteria on Milk Production by Early Lactation Dairy Cows W. P. Weiss, D. J. Wyatt, and T. R. McKelvey.....	646
Effects of Propionibacteria and Yeast Culture Fed to Steers on Nutrient Intake and Site and Extent of Digestion K. V. Lehloenya, C. R. Krehbiel, K. J. Mertz, T. G. Rehberger, and L. J. Spicer	653
Comparison of Brown Midrib Sorghum-Sudangrass with Corn Silage on Lactational Performance and Nutrient Digestibility in Holstein Dairy Cows H. M. Dann, R. J. Grant, K. W. Cotanch, E. D. Thomas, C. S. Ballard, and R. Rice	663
Alfalfa Containing the Glyphosate-Tolerant Trait Has No Effect on Feed Intake, Milk Composition, or Milk Production of Dairy Cattle D. K. Combs and G. F. Hartnell.....	673
Mammary Uptake, Portal-Drained Visceral Flux, and Hepatic Metabolism of Free and Peptide-Bound Amino Acids in Cows Fed Steam-Flaked or Dry-Rolled Sorghum Grain Diets H. Tagari, K. Webb Jr., B. Theurer, T. Huber, D. DeYoung, P. Cuneo, J. E. P. Santos, J. Simas, M. Sadik, A. Alio, O. Lozano, A. Delgado-Elorduy, L. Nussio, C. M. M. Bittar, and F. Santos.....	679
Peas Can Replace Soybean Meal and Corn Grain in Dairy Cow Diets M. Vander Pol, A. N. Hristov, S. Zaman, and N. Delano	698
Risk Factors Associated with Colostrum Quality in Norwegian Dairy Cows S. M. Gulliksen, K. I. Lie, L. Sølvørød, and O. Østerås.....	704
Nutritive Value of Timothy Fertilized with Chloride or Chloride-Containing Liquid Swine Manure S. Pelletier, G. F. Tremblay, G. Bélanger, M. H. Chantigny, P. Seguin, R. Drapeau, and G. Allard	713
Milk Fatty Acid Composition of Grazing Dairy Cows When Supplemented with Linseed Oil G. Flowers, S. A. Ibrahim, and A. A. AbuGhazaleh.....	722

Kinetics of Ruminant Lipolysis of Triacylglycerol and Biohydrogenation of Long-Chain Fatty Acids: New Insights from Old Data P. J. Moate, R. C. Boston, T. C. Jenkins, and I. J. Lean	731
Magnesium Absorption by Lactating Dairy Cows on a Grass Silage-Based Diet Supplied with Different Potassium and Magnesium Levels K. Holtenius, C. Kronqvist, E. Briland, and R. Spörndly	743
Principal Component and Multivariate Analysis of Milk Long-Chain Fatty Acid Composition During Diet-Induced Milk Fat Depression A. K. G. Kadegowda, L. S. Piperova, and R. A. Erdman	749
A Study of Lusitano Mare Lactation Curve with Wood's Model A. S. Santos and A. M. Silvestre	760

GENETICS AND BREEDING:

Quantitative Trait Loci Affecting Milk Yield and Protein Percentage in a Three-Country Brown Swiss Population A. Bagnato, F. Schiavini, A. Rossoni, C. Maltecca, M. Dolezal, I. Medugorac, J. Sölkner, V. Russo, L. Fontanesi, A. Friedmann, M. Soller, and E. Lipkin	767
Mutations in the <i>STAT5A</i> Gene Are Associated with Embryonic Survival and Milk Composition in Cattle H. Khatib, R. L. Monson, V. Schutzkus, D. M. Kohl, G. J. M. Rosa, and J. J. Rutledge	784
Understanding Cow Evaluations in Univariate and Multivariate Animal and Random Regression Models R. Mrode and M. Coffey	794
Detection and Analysis of Quantitative Trait Loci Affecting Production and Secondary Traits on Chromosome 7 in Israeli Holsteins J. I. Weller, M. Golik, S. Reikhav, R. Domochofsky, E. Seroussi, and M. Ron	802
Sequence Analysis of Goat Major Histocompatibility Complex Class I Genes A. Zidi, A. Sánchez, G. Obexer-Ruff, and M. Amills	814
Environmental Effects on Conception Rates of Holsteins in New York and Georgia C. Huang, S. Tsuruta, J. K. Bertrand, I. Misztal, T. J. Lawlor, and J. S. Clay	818
Holstein-Friesian Dairy Cows Under a Predominantly Grazing System: Interaction Between Genotype and Environment W. J. Fulkerson, T. M. Davison, S. C. Garcia, G. Hough, M. E. Goddard, R. Dobos, and M. Blockey	826
<i>Short Communication:</i> Genotype by Environment Interaction Due to Heat Stress J. Bohmanova, I. Misztal, S. Tsuruta, H. D. Norman, and T. J. Lawlor	840

OUR INDUSTRY TODAY:

Exploring the Impact of Sexed Semen on the Structure of the Dairy Industry A. De Vries, M. Overton, J. Fetrow, K. Leslie, S. Eicker, and G. Rogers	847
Seasonal Diet Affects Ammonia Emissions from Tie-Stall Dairy Barns J. M. Powell, G. A. Broderick, and T. H. Misselbrook	857

NOTICE: Page Charges for Publication

The page charge per printed page is \$85 for professional members and \$140 for nonmembers for papers published in *Journal of Dairy Science*. Open access (OA) publication is available upon payment of a \$1000 OA fee in addition to standard page charges.