

# Journal of Dairy Science

June 1980

Volume 63, Number 6

## CONTENTS

NEWS AND EVENTS . . . . .	4
GENERAL INTEREST:	
Administrative Information . . . . .	3
RESEARCH PAPERS:	
Some Aspects of Feeding High Producing Dairy Cows. J. H. Clark and C. L. Davis . . . . .	873
Effect of Two Component Pricing Systems on Producer Income. J. K. Hillers, A. E. Freeman, J. Dommerholt, and R. E. Deiter . . . . .	886
Activity of Xanthine Oxidase in Dairy Products. J. P. Zikakis and S. G. Wooters . . . . .	893
Cottage Cheese Whey Derivatives as Ingredients of Cottage Cheese Creaming Mixes. A. R. Fain, Jr., M. Loewenstein, S. J. Speck, H. M. Barnhart, and J. F. Frank . . . . .	905
Role of Microflora in Production of Free Fatty Acids and Flavor in Swiss Cheese. P. V. Paulsen, J. Kowalewska, E. G. Hammond, and B. A. Glatz . . . . .	912
Correlation Between Concentrations of Hypothiocyanate and Antibacterial Effect of the Lactoperoxidase System Against <i>Escherichia coli</i> . L. Bjoerck and O. Claesson . . . . .	919
Effect of Dietary Sodium Bicarbonate and Magnesium Oxide on Production and Physiology in Early Lactation. R. A. Erdman, R. L. Botts, R. W. Hemken, and L. S. Bull . . . . .	923
Sodium Bicarbonate in Diets for Milking Holstein Cows. J. D. Donker and G. D. Marx . . . . .	931
Partial Replacement of Concentrate by High Quality Hay for Cows in Early Lactation. E. J. DePeters and E. M. Kesler . . . . .	936
Fate of Isotopically Labeled Cholecalciferol and 25-Hydroxycholecalciferol in Sheep. M. Hidioglou and C. J. Williams . . . . .	945
Fermented or Chemically-Treated Colostrum and Nonsalable Milk in Feeding Programs for Calves. D. E. Otterby, D. G. Johnson, J. A. Foley, D. S. Tomsche, R. G. Lundquist, and P. J. Hanson . . . . .	951
Performance of Calves Fed Colostrum Treated with Sodium Benzoate or Benzoic Acid. B. F. Jenny, B. A. Costello, and H. J. van Dijk . . . . .	959
Comparison of Two Strains of <i>Lactobacillus acidophilus</i> as Dietary Adjuncts for Young Calves. S. E. Gilliland, B. B. Bruce, L. J. Bush, and T. E. Staley . . . . .	964

Hydrometer Test for Estimation of Immunoglobulin Concentration in Bovine Colostrum. W. A. Fleenor and G. H. Stott . . . . .	973
Mastitis Diagnostic Tests to Estimate Mammary Gland Epithelial Cell Damage. B. J. Kitchen, G. Middleton, I. G. Durward, R. J. Andrews, and M. C. Salmon . . . . .	978
Contribution of Days Since Bred, Herd Average, and Sample-Day Production to Accuracy in Projecting Lactation Records. G. R. Wiggans . . . . .	984

**TECHNICAL NOTES:**

Amount of Yeast and Whey Protein Recovered from Cottage Cheese Whey Cultured with <i>Kluyveromyces fragilis</i> . S. E. Gilliland and C. F. Stewart. . . . .	989
Scanning Electron Microscopy, A Technique for Evaluating Milking Machine Inflations and Tubes. R. Heckmann and D. O. Noorlander . . . . .	991

**OUR INDUSTRY TODAY:**

Net Returns from Selection Under Various Component Testing Plans and Milk Pricing Schemes. A. Kuipers and G. E. Shook. . . . .	1006
--	------

**SYMPOSIUM: INTERNATIONAL CHALLENGES AND PERSPECTIVES**

Internationalism and Survival of Foot-and-Mouth Disease Virus in Cattle and Food Products. J. H. Blackwell . . . . .	1019
Milking Animals and Fermented Milks of the Middle East and Their Contribution to Man's Welfare. S. Gordin. . . . .	1031