

Journal of **ANIMAL SCIENCE**

Volume 46

OCTOBER 1977

Number 4

TABLE OF CONTENTS

APPLIED ANIMAL SCIENCE

- | | <i>Page</i> |
|---|-------------|
| Bulls Versus Steers. I. Carcass Composition, Wholesale Yields and Retail Values. <i>J. A. Jacobs, C. E. Hurst, J. C. Miller, A. D. Howes, T. L. Gregory and T. P. Ringkob</i> | 695 |
| Bulls Versus Steers. II. Palatability and Retail Acceptance. <i>J. A. Jacobs, J. C. Miller, E. A. Sauter, A. D. Howes, A. A. Araji, T. L. Gregory and C. E. Hurst</i> | 699 |

BREEDING AND GENETICS

- | | |
|---|-----|
| Heterosis in Feed Efficiency of Beef Steers. <i>M. R. Ellersieck, J. F. Lasley, W. R. Sibbit and L. H. Langford</i> | 703 |
|---|-----|

MEAT SCIENCE AND MUSCLE BIOLOGY

- | | |
|--|-----|
| Effects of Beef-Type on Bone, Fat Trim and Retail Cut Yield and Distribution. <i>M. E. Dikeman, R. A. Merkel and W. T. Magee</i> | 708 |
| Packaging and Palatability Characteristics of Grass and Grass-Grain Fed Beef. <i>J. O. Reagan, J. A. Carpenter, F. T. Bauer and R. S. Lowrey</i> | 716 |

NONRUMINANT NUTRITION

- | | |
|---|-----|
| Hyperplastic and Hypertrophic Growth in Organs and Tissues of the Neonatal Pig. <i>N. K. Sarkar, G. A. Lodge and D. W. Friend</i> | 722 |
| Preparation of and Glucose Absorption from Intestinal Loops in Conscious Swine. <i>Jerome C. Pekas</i> | 729 |
| Efficacy of Inorganic Selenium Supplementation to Sow Diets on Resulting Carry-Over to Their Progeny. <i>D. C. Mahan, A. L. Moxon and Mariana Hubbard</i> | 738 |
| Mutant Corns in Young Pug Diets and Amino Acid Supplementation of <i>Opaque-2</i> Corn. <i>R. C. Wahlstrom, R. V. Merrill, L. J. Reiner and G. W. Libal</i> | 747 |

PHYSIOLOGY AND ENDOCRINOLOGY

- | | |
|--|-----|
| Influence of Prostaglandin $F_{2\alpha}$, Dexamethasone, Progesterone and Induced Corpora Lutea on Porcine Parturition. <i>E. G. Coggins, D. Van Horn and N. L. First</i> | 754 |
| Effect of Indomethacin on Luteal Function in Ewes and Heifers. <i>P. E. Lewis and J. E. Warren, Jr.</i> | 763 |

Effects of Pseudopregnancy and Ergocornine Treatment on Synchronization of Mating, Duration of Gestation and Production of Young in Rats. <i>D. R. Bennett, R. P. Rathmacher and R. L. Cochran</i>	768
Role of Rabbit Fetuses and Placentas in the Maintenance of Gestation and Parturition. <i>O. Chiboka, L. E. Casida and N. L. First</i>	776
Antiluteolytic Effect of the Conceptus and of PGE ₂ in Ewes. <i>B. R. Pratt, R. L. Butcher and E. K. Inskeep</i>	784
Negative Feedback Control of Bovine Serum Luteinizing Hormone (LH) Concentration from Completion of the Preovulatory LH Surge until Resumption of Luteal Function. <i>E. M. Convey, T. W. Beck, R. R. Neitzel, E. F. Bostwick and H. D. Hafs</i>	792
Effect of Days Postpartum and Endogenous Reproductive Hormones on GNRH-Induced LH Release in Dairy Cows. <i>D. J. Kesler, H. A. Garverick, R. S. Youngquist, R. G. Elmore and C. J. Bierschwal</i>	797

RUMINANT NUTRITION

Sodium Bentonite or Sodium Bicarbonate as Aids in Feeding High-Concentrate Diets to Lambs. <i>G. B. Huntington, R. J. Emerick and L. B. Embry</i>	804
Responses of Heifers Ingesting Boron in Water. <i>G. H. Green and H. J. Weeth</i>	812
Feather Meal and Hair Meal as Protein Sources for Steer Calves. <i>V. M. Thomas and W. M. Beeson</i>	819
Bovine Hair as an Indicator of Calorie-Protein Status. <i>Gordon L. Haaland, J. K. Matsushima, C. F. Nockels and D. E. Johnson</i>	826
Isolation-Perfusion of Ovine Hind Limbs. III. Perfusate Lysine Levels. <i>J. A. Boling, J. C. Willard and W. R. Burris</i>	832
Microbial Protein Synthesis with Low Quality Roughage Rations: Isonitrogenous Substitution of Urea for Soybean Meal. <i>J. R. Kropp, R. R. Johnson, J. R. Males and F. N. Owens</i>	837
Microbial Protein Synthesis with Low Quality Roughage Rations: Level and Source of Nitrogen. <i>J. R. Kropp, R. R. Johnson, J. R. Males and F. N. Owens</i>	844
Digestible, Metabolizable and Net Energy Values of Pea Scalpings and Wheat Straw in Lambs. <i>R. P. Kromann, K. O. Warner, T. R. Wilson, E. L. Martin and J. K. Hillers</i>	855
Effects of Storage Temperature and Mercuric Chloride on Preservation of Blood Samples for Later Determination of Ammonia-N. <i>A. Davidovich, E. E. Bartley, R. M. Bechtel and A. D. Dayton</i>	863
Nitrogen Metabolism in Lambs Fed Lipid-Coated Protein. <i>B. P. Glenn, D. G. Ely and J. A. Boling</i>	871
Performance of Feedlot Cattle and Rumen Microorganisms as Influenced by Lignosulfonate. <i>F. S. Chang, I. A. Dyer and R. J. Johnson</i>	878
Effect of the Length of Fasting on Intake, <i>In Vitro</i> Digestibility and Chemical Composition of Forage Samples Collected by Esophageal Fistulated Sheep. <i>A. E. Sidabmed, J. G. Morris, W. C. Weir and D. T. Torrell</i>	885
Selenium and Vitamin E for Lambs with Trichostrongylosis. <i>G. M. Horton</i>	891

OTHER

Behavior

Maze Learning in Quarter Horses. <i>D. D. Kratzer, W. M. Netherland, R. E. Pulse and J. P. Baker</i>	896
--	-----

Symposium on Enhancing the Value of Graduate Degrees in Animal Science for Foreign Students

The Role of the Graduate Student in Obtaining Graduate Training Relevant to His Goals. <i>Karl R. Fick</i>	903
Relating Graduate Training to Needs of Students Returning to Countries of Less	

Developed Technology. <i>Hernán Caballero</i>	906
The Role of the Graduate College. <i>George W. Kunze</i>	912
Problems of Foreign Graduate Students and Factors Limiting Their Expectations. <i>Jorge Ordonez</i>	919
The Role of the Department, Graduate Committee and Advisor. <i>J. H. Conrad</i>	923
Guidelines for Hormone Radio-Immunoassay. <i>H. D. Hafs, G. D. Niswender, P. V. Malven, C. C. Kaltenbach, R. G. Zimbelman and R. J. Condon</i>	927
Northeastern Section A.S.A.S. Distinguished Service Award	929
Western Section A.S.A.S. Distinguished Service Award	931
Western Section A.S.A.S. Young Scientist Award, 1977	932
News and Notes	933
Placement	936