

# Journal of ANIMAL SCIENCE

Volume 65

September 1987

Number 3

## TABLE OF CONTENTS

	<i>Page</i>
<b>APPLIED ANIMAL SCIENCE</b>	
Pregnancy Rates of Beef Heifers Bred Either on Puberal or Third Estrus. <i>D. J. Byerley, R. B. Staigmiller, J. G. Berardinelli and R. E. Short</i> . . . . .	645
Response of Purebred and Crossbred Ewes to Intensified Management. <i>N. C. Rawlings, I. A. Jeffcoate and W. E. Howell</i> . . . . .	651
Effects of Dietary Energy Level and Supplemental Protein Source on Performance of Growing Steers and Nutrient Digestibility and Nitrogen Balance in Lambs. <i>N. R. Merchen, D. E. Darden, L. L. Berger, G. C. Fabey, Jr., E. C. Titgemeyer and R. L. Fernando</i> . . . . .	658
Growth and Carcass Characteristics of Cull Cows after Different Times-on-Feed. <i>R. J. Matulis, F. K. McKeith, D. B. Faulkner, L. L. Berger and P. George</i> . . . . .	669
<b>BREEDING AND GENETICS</b>	
Cytoplasmic Genetic Effects on Preweaning Growth and Milk Yield in Hereford Cattle. <i>M. W. Tess, C. Reodecha and O. W. Robison</i> . . . . .	675
Breed Differences in Uterine and Ovarian Measurements in Gestating Swine. <i>K. L. Davis, O. W. Robison and V. D. Toelle</i> . . . . .	685
<b>GROWTH AND DEVELOPMENTAL BIOLOGY</b>	
Feed Efficiency, Growth Rates, Body Composition, Milk Production and Milk Composition of Targhee Sheep Selected for Increased Weaning Weight. <i>D. L. Brown, M. R. Dally, M. R. Schwartz and G. E. Bradford</i> . . . . .	692
<b>NONRUMINANT NUTRITION</b>	
Comparative Effects of Individual Amino Acid Excesses when Added to a Corn-Soybean Meal Diet: Effects on Growth and Dietary Choice in the Chick. <i>Michael S. Edmonds and David H. Baker</i> . . . . .	699
Urea Cycle Metabolism: Effects of Supplemental Ornithine or Citrulline on Performance, Tissue Amino Acid Concentrations and Enzymatic Activity in Young Pigs Fed Arginine-Deficient Diets. <i>Michael S. Edmonds, Karen R. Lowry and David H. Baker</i> . . . . .	706
Effect of Protein and Lysine Levels in the Diet on Body Gain Composition and Energy Utilization in Growing Pigs. <i>J. Noblet, Y. Henry and S. Dubois</i> . . . . .	717
<b>PHARMACOLOGY AND TOXICOLOGY</b>	
Selected Hormonal Changes with Summer Fescue Toxicosis. <i>F. N. Thompson, J. A. Stuedemann, J. L. Sartin, D. P. Belesky and O. J. Devine</i> . . . . .	727
Effect of Orally Administered Pilocarpine on Serum Enzymes, Organ Weights and Histopathology in Meadow Voles. <i>R. D. Wiedmeier, R. D. White, M. J. Arambel and J. L. Walters</i> . . . . .	734

## PHYSIOLOGY AND ENDOCRINOLOGY

Justification of Unilateral Hysterectomy-Ovariectomy as a Model to Evaluate Uterine Capacity in Swine. <i>R. K. Christenson, K. A. Leymaster and L. D. Young</i> . . . . .	738
Effects of Prepartum Protein Nutrition and Birth Weight on Basal Metabolism in Bovine Neonates. <i>G. E. Carstens, D. E. Johnson, M. D. Holland and K. G. Odde</i> . . . . .	745
Ovulation and Embryonic Survival in Pubertal Gilts Treated with Gonadotropin Releasing Hormone. <i>A. E. Archibong, D. C. England and F. Stormshak</i> . . . . .	752
Transfer of Bovine Demi-Embryos With and Without the Zona Pellucida. <i>S. J. Warfield, G. E. Seidel, Jr. and R. P. Elsdon</i> . . . . .	756
Relationships Between Uterine Length and Number of Fetuses and Prenatal Mortality in Pigs. <i>M. C. Wu, M. D. Hentzel and P. J. Dziuk</i> . . . . .	762
Increased Luteinizing Hormone Secretion and Ovarian Function in Heifers Actively Immunized Against Estrogen and Progesterone. <i>Ching-Fong Chang, A. J. Roberts and Jerry J. Reeves</i> . . . . .	771

## RUMINANT NUTRITION

Influence of Lasalocid Level on Forage Intake, Digestibility, Ruminal Fermentation, Liquid Flow and Performance of Beef Cattle Grazing Winter Range. <i>K. A. Jacques, R. C. Cochran, L. R. Corab, T. B. Avery, K. O. Zoellner and J. F. Higginbotham</i> . . . . .	777
Effect of Cutting Interval upon Yield, Composition and Digestibility of Florida 77 Alfalfa and Florigraze Rhizoma Peanut. <i>F. Romero, H. H. Van Horn, G. M. Prine and E. C. French</i> . . . . .	786
Effects of Mefluidide Treatment, Nitrogen Fertilization and Tall Fescue Variety on Nutrient Metabolism by Growing Sheep Fed Fall-Harvested Silages. <i>B. P. Glenn, James Bond and S. Glenn</i> . . . . .	797
Kinetics of Intravenously Administered 25-Hydroxyvitamin D <sub>3</sub> in Sheep and the Effect of Exposure to Ultraviolet Radiation. <i>M. Hidioglou</i> . . . . .	808
Effect of Intraruminally Administered, Selenium Soluble-Glass Boluses on Selenium Status in Cows and Their Calves. <i>M. Hidioglou, J. Proulx and J. Jolette</i> . . . . .	815
Macromineral Absorption in Sheep Fed Tetany-Prone and Non-Tetany-Prone Hays. <i>E. E. Grings and J. R. Males</i> . . . . .	821
Lasalocid and Dietary Sodium and Potassium Effects on Mineral Metabolism, Ruminal Volatile Fatty Acids and Performance of Finishing Steers. <i>J. W. Spears and R. W. Harvey</i> . . . . .	830
Description and Validation of an In Situ Autoperfusion Method to Determine Nutrient Absorption and Metabolism in Bovine Small Intestine. <i>R. A. Murray, J. E. Nocek, C. G. Schwab, W. E. Hylton and C. K. Bozak</i> . . . . .	841
News and Notes . . . . .	861
Placement . . . . .	862
New Books. . . . .	864

**1988 ASAS ANNUAL MEETING  
RUTGERS UNIVERSITY, NEW BRUNSWICK, NJ  
JULY 18-22**