

**CONTENTS**

**ANIMAL GENETICS**

**Quantitative Genetics**

- Correlated responses for litter traits to six generations of selection for ovulation rate or prenatal survival in French Large White pigs. *A. Rosendo, T. Druet, J. Gogué, L. Canario, and J. P. Bidanel*..... 1615
- Effect of competition on gain in feedlot bulls from Hereford selection lines. *L. D. Van Vleck, L. V. Cundiff, and R. M. Koch* ..... 1625
- Early embryonic survival and embryo development in two lines of rabbits divergently selected for uterine capacity. *R. Peiró, M. A. Santacreu, Á. Climent, and A. Blasco* ..... 1634

**ANIMAL GROWTH, PHYSIOLOGY, AND REPRODUCTION**

**Growth and Developmental Biology**

- Lectin binding profile of the small intestine of five-week-old pigs in response to the use of chlortetracycline as a growth promotant and under gnotobiotic conditions. *S. George, Y. Oh, S. Lindblom, S. Vilain, A. J. M. Rosa, D. H. Francis, V. S. Brözel, and R. S. Kaushik*..... 1640
- Heart fatty acid binding protein is upregulated during porcine adipocyte development. *B. Li, H. N. Zerby, and K. Lee* ..... 1651

**Physiology, Endocrinology, and Reproduction**

- Endocrine profiles of periparturient mares and their foals. *E. L. Berg, D. L. McNamara, and D. H. Keisler*..... 1660
- Putative urinary pheromone of bulls involved with breeding performance of primiparous beef cows in a progestin-based estrous synchronization protocol. *S. A. Tauck and J. G. Berardinelli* ..... 1669
- Effects of dietary supplementation with flax during prepuberty on fatty acid profile, mammarygenesis, and bone resorption in gilts. *C. Farmer, H. V. Petit, H. Weiler, and A. V. Capuco*..... 1675

**ANIMAL NUTRITION**

**Nonruminant Nutrition**

- Growth characteristics, blood metabolites, and insulin-like growth factor system components in maternal tissues of gilts fed L-carnitine through day seventy of gestation. *K. R. Brown, R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, J. E. Minton, J. J. Higgins, J. C. Woodworth, and B. J. Johnson* ..... 1687
- Nutritional value for swine of extruded corn and corn fractions obtained after dry milling. *N. S. Muley, E. van Heugten, A. J. Moeser, K. D. Rausch, and T. A. T. G. van Kempen* ..... 1695
- Supplementation of carbohydrases or phytase individually or in combination to diets for weanling and growing-finishing pigs. *O. A. Olukosi, J. S. Sands, and O. Adeola*..... 1702
- Oral N-acetyl-L-cysteine is a safe and effective precursor of cysteine. *R. N. Dilger and D. H. Baker*..... 1712

**Ruminant Nutrition**

- Effect of dietary energy source on in vitro substrate utilization and insulin sensitivity of muscle and adipose tissues of Angus and Wagyu steers. *R. D. Rhoades, J. E. Sawyer, K. Y. Chung, M. L. Schell, D. K. Lunt, and S. B. Smith*..... 1719

Starch digestion by feedlot cattle: Predictions from analysis of feed and fecal starch and nitrogen. <i>R. A. Zinn, A. Barreras, L. Corona, F. N. Owens, and R. A. Ware</i> .....	1727
---	------

## ANIMAL PRODUCTS

### Meat Science and Muscle Biology

Corn oil supplementation to steers grazing endophyte-free tall fescue. II. Effects on longissimus muscle and subcutaneous adipose fatty acid composition and stearoyl-CoA desaturase activity and expression. <i>E. Pavan and S. K. Duckett</i> .....	1731
---	------

## ANIMAL PRODUCTION

### Behavior

Prewaning housing effects on behavior and physiological measures in pigs during the suckling and fattening periods. <i>H. Chaloupková, G. Illmann, K. Neuhauserová, M. Tománek, and L. Vališ</i> .....	1741
--	------

### Health and Well-Being

Periparturient cortisol, acute phase cytokine, and acute phase protein profiles of gilts housed in groups or stalls during gestation. <i>A. D. Sorrells, S. D. Eicher, M. J. Harris, E. A. Pajor, and B. T. Richert</i> .....	1750
Space allowance for dry, pregnant sows in pens: Body condition, skin lesions, and performance. <i>J. L. Salak-Johnson, S. R. Niekamp, S. L. Rodriguez-Zas, M. Ellis, and S. E. Curtis</i> ....	1758
Effects of melengestrol acetate on the inflammatory response in heifers challenged with <i>Mannheimia haemolytica</i> . <i>M. E. Corrigan, J. S. Drouillard, M. F. Spire, D. A. Mosier, J. E. Minton, J. J. Higgins, E. R. Loe, B. E. Depenbusch, and J. T. Fox</i> .....	1770

### Management

Study of stayability in Nellore cows using a threshold model. <i>M. H. Van Melis, J. P. Eler, H. N. Oliveira, G. J. M. Rosa, J. A. II V. Silva, J. B. S. Ferraz, and E. Pereira</i> .....	1780
Daily dry matter intake to sustain body weight of mature, nonlactating, nonpregnant cows. <i>T. G. Jenkins and C. L. Ferrell</i> .....	1787
Diet mixing time affects nursery pig performance. <i>C. N. Groesbeck, R. D. Goodband, M. D. Tokach, S. S. Dritz, J. L. Nelssen, and J. M. DeRouche</i> .....	1793
Effects of water and diet acidification with and without antibiotics on weanling pig growth and microbial shedding. <i>M. C. Walsh, D. M. Sholly, R. B. Hinson, K. L. Saddoris, A. L. Sutton, J. S. Radcliffe, R. Odgaard, J. Murphy, and B. T. Richert</i> .....	1799
Effects of ractopamine supplementation on growth performance and carcass characteristics of feedlot steers differing in biological type. <i>S. L. Gruber, J. D. Tatum, T. E. Engle, M. A. Mitchell, S. B. Laudert, A. L. Schroeder, and W. J. Platter</i> .....	1809
Phenotypic measurements and various indices of lean and fat tissue development in barrows and gilts of two genetic lines from twenty to one hundred twenty-five kilograms of body weight. <i>T. G. Wiseman, D. C. Mahan, S. J. Moeller, J. C. Peters, N. D. Fastinger, S. Ching, and Y. Y. Kim</i> .....	1816
Tissue weights and body composition of two genetic lines of barrows and gilts from twenty to one hundred twenty-five kilograms of body weight. <i>T. G. Wiseman, D. C. Mahan, J. C. Peters, N. D. Fastinger, S. Ching, and Y. Y. Kim</i> .....	1825

### Pharmacology and Toxicology

Effect of previous locoweed ( <i>Astragalus</i> and <i>Oxytropis</i> species) intoxication on conditioned taste aversions in horses and sheep. <i>J. A. Pfister, B. L. Stegelmeier, C. D. Cheney, and D. R. Gardner</i> .....	1836
---	------

## SPECIAL TOPICS

### Teaching

Illustration of the maternal animal model used for genetic evaluation of beef cattle. <i>D. H. Crews Jr. and Z. Wang</i> .....	1842
---	------

### Announcements and Society Business

2007 Midwestern Section Award Winners .....	1849
2007 ASAS Midwestern Section and ADSA Midwest Branch Award Winners .....	1851
Undergraduate Academic Awards .....	1854
News and Notes .....	1862
Placement .....	1863