

Asian-Australasian Journal of Animal Sciences

January 2015

Volume 28 Number 1

Contents

INVITED REVIEW

1. Characterization of Dietary Energy in Swine Feed and Feed Ingredients: A Review of Recent Research Results / *D. E. Velayudhan, I. H. Kim, and C. M. Nyachoti* (Canada) · 1

ANIMAL BREEDING AND GENETICS

2. Genetic Diversity and Population Structure in Native Chicken Populations from Myanmar, Thailand and Laos by Using 102 Indels Markers / *A. A. Maw, K. Kawabe, T. Shimogiri, W. Rerkamnuaychoke, Y. Kawamoto, S. Masuda, and S. Okamoto* (Myanmar) 14
3. Molecular Characterization and Expression Analysis of Insulin-like Growth Factor-1 and Insulin-like Growth Factor Binding Protein-1 Genes in Qinghai-Tibet Plateau *Bos grunniens* and Lowland *Bos taurus* / *Ya-bing Chen, Mei Fu, Dao-liang Lan, and Jian Li* (China) 20
4. Evaluation of Inbreeding and Genetic Variability of Five Pig Breeds in Czech Republic / *E. Krupa, E. Žáková, and Z. Krupová* (Czech Republic) 25

RUMINANT NUTRITION AND FORAGE UTILIZATION

5. Mineral Metabolism in Singleton and Twin-pregnant Dairy Goats / *C. J. Härter, D. S. Castagnino, A. R. Rivera, L. D. Lima, H. G. O. Silva, A. N. Mendonça, G. F. Bonfim, A. Liesegang, N. St-Pierre, and I. A. M. A. Teixeira* (Brazil) 37
6. Effect of Soybean Meal and Soluble Starch on Biogenic Amine Production and Microbial Diversity Using *In vitro* Rumen Fermentation / *Chang-Dae Jeong, Lovelia L. Mamuad, Seon-Ho Kim, Yeon Jae Choi, Alvin P. Soriano, Kwang Keun Cho, Che-Ok Jeon, Sung Sil Lee, and Sang-Suk Lee* (Korea) 50
7. Changes of Serum Calcium Concentration, Frequency of Ruminal Contraction and Feed Intake Soon after Parturition of Dairy Cows Fed Diffructose Anhydride III / *S. Wynn, M. Teramura, T. Sato, and M. Hanada* (Japan) 58
8. Effect of Heifer Frame Score on Growth, Fertility, and Economics / *S. Şentürklü, D. G. Landblom, G. A. Perry, and T. Petry* (USA) 69

NONRUMINANT NUTRITION AND FEED PROCESSING

9. Antioxidant Enzyme Activity and Meat Quality of Meat Type Ducks Fed with Dried Oregano (*Origanum vulgare* L.) Powder / *J. H. Park, S. N. Kang, D. Shin, and K. S. Shim* (Korea) 79
10. Determination and Prediction of the Amino Acid Digestibility of Sunflower Seed Meals in Growing Pigs / *J. D. Liu, Q. Y. Li, Z. K. Zeng, P. Li, X. Xu, H. L. Wang, S. Zhang, and X. S. Piao* (China) 86

| | |
|--|-----|
| 11. Effects of Dietary Fermented <i>Chlorella vulgaris</i> (CBT [®]) on Growth Performance, Relative Organ Weights, Cecal Microflora, Tibia Bone Characteristics, and Meat Qualities in Pekin Ducks / <i>S. T. Oh, L. Zheng, H. J. Kwon, Y. K. Choo, K. W. Lee, C. W. Kang, and B. K. An</i> (Korea) | 95 |
| 12. Effect of Different Inclusion Level of Condensed Distillers Solubles Ratios and Oil Content on Amino Acid Digestibility of Corn Distillers Dried Grains with Solubles in Growing Pigs / <i>P. Li, X. Xu, Q. Zhang, J. D. Liu, Q. Y. Li, S. Zhang, X. K. Ma, and X. S. Piao</i> (China) | 102 |
| 13. Optimal Incorporation Level of Dietary Alternative Phosphate (MgHPO ₄) and Requirement for Phosphorus in Juvenile Far Eastern Catfish (<i>Silurus asotus</i>) / <i>Tae-Hyun Yoon, Dong-Hoon Lee, Seung-Gun Won, Chang-Six Ra, and Jeong-Dae Kim</i> (Korea) | 111 |

ANIMAL PRODUCTS

| | |
|--|-----|
| 14. Physicochemical and Sensory Properties of Red Ginseng Extracts or Red Ginseng Hydrolyzates-added Asiago Cheese during Ripening / <i>Kyung-Hoon Choi, Ji-Young Min, Palanivel Ganesan, In-Hyu Bae, and Hae-Soo Kwak</i> (Korea) | 120 |
|--|-----|

ANIMAL BIOTECHNOLOGY

| | |
|---|-----|
| 15. Effects of Castration on Expression of Lipid Metabolism Genes in the Liver of Korean Cattle / <i>Myunggi Baik, Trang Hoa Nguyen, Jin Young Jeong, Min Yu Piao, and Hyeok Joong Kang</i> (Korea) | 127 |
|---|-----|

ANIMAL HEALTH

| | |
|--|-----|
| 16. Immune Responses in Broiler Chicks Fed Propolis Extraction Residue-supplemented Diets / <i>C. Eyng, A. E. Murakami, T. C. Santos, T. G. V. Silveira, R. B. Pedroso, and D. A. L. Lourenço</i> (Brazil) | 135 |
|--|-----|

ENVIRONMENT AND MANAGEMENT

| | |
|---|-----|
| 17. Effects of Bedding Material Composition in Deep Litter Systems on Bedding Characteristics and Growth Performance of Limousin Calves / <i>J. Meng, F. H. Shi, Q. X. Meng, L. P. Ren, Z. M. Zhou, H. Wu, and L. P. Zhao</i> (China) | 143 |
|---|-----|
