
Review Paper

- 603** Conservation of indigenous cattle genetic resources in Southern Africa's smallholder areas: turning threats into opportunities — A review
G. B. Nyamushamba, C. Mapiye, O. Tada, T. E. Halimani, V. Muchenje (South Africa)
- 622** Polyunsaturated Fatty Acids in Male Ruminant Reproduction — A Review
Len Van Tran, Bilal Ahmad Malla, Sachin Kumar, Amrish Kumar Tyagi (Vietnam)

Animal Breeding and Genetics

- 638** A post-genome-wide association study validating the association of the glycoporphin C gene with serum hemoglobin level in pig
Yang Liu, Zhengzheng Hu, Chen Yang, Shiwei Wang, Wenwen Wang, Qin Zhang (China)

Animal Reproduction and Physiology

- 643** Expression and regulation of prostaglandin transporters, ATP-binding cassette, subfamily C, member 1 and 9, and solute carrier organic anion transporter family, member 2A1 and 5A1 in the uterine endometrium during the estrous cycle and pregnancy in pigs
Hwanhee Jang, Yohan Choi, Inkyu Yoo, Jisoo Han, Minjeong Kim, Hakhyun Ka (Korea)

Ruminant Nutrition and Forage Utilization

- 653** Effects of ruminally degradable starch levels on performance, nitrogen balance, and nutrient digestibility in dairy cows fed low corn-based starch diets
Guobin Luo, Wenbin Xu, Jinshan Yang, Yang Li, Liyang Zhang, Yizhen Wang, Cong Lin, Yonggen Zhang (China)
- 660** Effect of increasing dietary metabolizable protein on nitrogen efficiency in Holstein dairy cows
Muhammad Imran, Talat Naseer Pasha, Muhammad Qamer Shahid, Imran Babar, Muhammad Naveed ul Haque (Pakistan)
- 666** Comparative study on production, reproduction and functional traits between Fleckvieh and Braunvieh cattle
Ludovic-Toma Csiszter, Daniela-Elena Ilie, Radu-Ionel Neamt, Florin-Cristian Neciu, Silviu-Ilie Saplacan, Dinu Gavojdian (Romania)

Nonruminant Nutrition and Feed Processing

- 672** Effects of probiotic, prebiotic, and synbiotic with and without feed restriction on performance, hematological indices and carcass characteristics of broiler chickens
Hassan M. Abdel-Hafeez, Elham S. E. Saleh, Samar S. Tawfeek, Ibrahim M. I. Youssef, Asmaa S. A. Abdel-Daim (Egypt)
- 683** Use of multivitamin, acidifier and Azolla in the diet of broiler chickens
M. A. Islam, M. Nishibori (Bangladesh)

- 690** Effect of sodium butyrate on performance, immune status, microarchitecture of small intestinal mucosa and lymphoid organs in broiler chickens
Arbab Sikandar, Hafsa Zaneb, Muhammad Younus, Saima Masood, Asim Aslam, Farina Khattak, Saima Ashraf, Muhammad Shahbaz Yousaf, Habib Rehman (Pakistan)
- 700** The effects of high-fat diets composed of different animal and vegetable fat sources on the health status and tissue lipid profiles of male Japanese quail (*Coturnix coturnix japonica*)
Janine Donaldson, Michael Taurai Madziva, Kennedy Honey Erlwanger (South Africa)
- 712** Evaluation of available energy and total tract digestibility of acid-hydrolyzed ether extract of cottonseed oil for growing pigs by the difference and regression methods
Jinbiao Zhao, Zhongchao Li, Mingbin Lyu, Ling Liu, Xiangshu Piao, Defa Li (China)
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Animal Products

- 720** Relationship between sensory attributes and volatile compounds of polish dry-cured loin
Ewa Górska, Katarzyna Nowicka, Danuta Jaworska, Wiesław Przybylski, Krzysztof Tambor (Poland)
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Animal Biotechnology

- 728** Exercise induced upregulation of glutamate-cysteine ligase catalytic subunit and glutamate-cysteine ligase modifier subunit gene expression in Thoroughbred horses
Jeong-Woong Park, Jae-Young Choi, Seul A Hong, Nam Young Kim, Kyoung-Tag Do, Ki-Duk Song, Byung-Wook Cho (Korea)
- 736** Cloning and sequence analysis of Wild Argali short palate, lung and nasal epithelium clone 1 cDNA
Wen Shen, Kaili Chen, Yanming Sun, Haiying Guo, Dongmei Chen, Yang Cao (China)
- 743** Myostatin gene knockout mediated by Cas9-D10A nickase in chicken DF1 cells without off-target effect
Jeong Hyo Lee, Si Won Kim, Tae Sub Park (Korea)
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Environment and Management

- 749** Seasonal variation in growth of Berkshire pigs in alternative production systems
Hyeon-Suk Park, Sang-Hyon Oh (USA)