

Review Paper

- 867** An outlook on livestock welfare conditions in African communities — A review
Yonela Zifikile Njisane, Felicitas Esnart Mukumbo, Voster Muchenje (South Africa)

Animal Breeding and Genetics

- 879** MiR-126-3p inhibits apoptosis and promotes proliferation by targeting phosphatidylinositol 3-kinase regulatory subunit 2 in porcine ovarian granulosa cells
Xiaofeng Zhou, Yingting He, Yao Jiang, Bo He, Xi Deng, Zhe Zhang, Xiaolong Yuan, Jiaqi Li (China)
- 888** Monitoring of genetically close Tsaiya duck populations using novel microsatellite markers with high polymorphism
Fang-Yu Lai, Yi-Ying Chang, Yi-Chen Chen, En-Chung Lin, Hsiu-Chou Liu, Jeng-Fang Huang, Shih-Torng Ding, Pei-Hwa Wang (Taiwan)
- 902** Mitochondrial DNA variation and phylogeography of native Mongolian goats
Onolragchaa Ganbold, Seung-Hwan Lee, Woon Kee Paek, Munkhbaatar Munkhbayar, Dongwon Seo, Prabuddha Manjula, Tamir Khujuu, Erdenetushig Purevee, Jun Heon Lee (Korea)

Ruminant Nutrition and Forage Utilization

- 913** Effect of *Macleaya cordata* and *Magnolia officinalis* plant extracts on oxidative stress control in lambs fed a high-concentrate diet
Tiago Ronimar Ferreira Lima, Sarita Bonagurio Gallo, Alessandra Fernandes Rosa, Saulo da Luz e Silva, Thais Brochado, Helena Viel Alves Bezerra, Soraia Marques Putrino, Marcela Buosi Martins, Paulo Roberto Leme (Brazil)
- 921** Effects of replacement of para-grass with oil palm compounds on body weight, food intake, nutrient digestibility, rumen functions and blood parameters in goats
C. Buranakarl, S. Thammacharoen, S. Semsirboon, S. Sutayatram, S. Chanpongsang, N. Chaiyabutr, K. Katoh (Thailand)
- 930** Nutritional value and *in situ* degradability of oak wood roughage and its feeding effects on growth performance and behavior of Hanwoo steers during the early fattening period
Ye Ri Ju, Youl Chang Baek, Sun Sik Jang, Young Kyooh Oh, Sung Suk Lee, Yong Sik Kim, Keun Kyu Park (Korea)
- 941** Effects of dietary cation and anion difference on eating, ruminal function and plasma leptin in goats under tropical condition
Thiet Nguyen, Somchai Chanpongsang, Narongsak Chaiyabutr, Sumpun Thammacharoen (Thailand)
- 949** Effects of wild or mutated inoculants on rye silage and its rumen fermentation indices
Dimas Hand Vidya Paradhipta, Young Ho Joo, Hyuk Jun Lee, Seong Shin Lee, Youn Sig Kwak, Ouk Kyu Han, Dong Hyeon Kim, Sam Churl Kim (Korea)
- 957** Partial replacement of soybean meal by white lupine seeds in the diet of dairy cows
Miroslav Joch, Václav Kudrna (Czech Republic)

Nonruminant Nutrition and Feed Processing

- 965** Effects of *Astragalus membranaceus* roots supplementation on growth performance, serum antioxidant and immune response in finishing lambs
Xiaoyan Hao, Pengju Wang, Youshe Ren, Gentang Liu, Jianxin Zhang, Brian Leury, Chunxiang Zhang (China)
- 973** Nutritional value and *in situ* degradability of fruit-vegetable byproducts and their feeding effects on performance of growing Hanwoo steers
Keun Hong Song, Jun Sik Woo, Ju Ri Kim, Gyeong Lim Ryu, Youl Chang Baek, Young Kyooh Oh, Wan Sup Kwak, Keun Kyu Park (Korea)

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- 981** Effect of calcium stearoyl-2 lactylate and lipase supplementation on growth performance, gut health, and nutrient digestibility of broiler chickens
Samiru Sudharaka Wickramasuriya, Hyun Min Cho, Shemil Priyan Macelline, Eunjo Kim, Taeg Kyun Shin, Young Joo Yi, Seung Hwan Park, Kyung Bon Lee, Jung Min Heo (Korea)
- 992** Hot melt extruded-based nano zinc as an alternative to the pharmacological dose of ZnO in weanling piglets
Seung Min Oh, Min Ju Kim, Abdolreza Hosseindoust, Kwang Yeol Kim, Yo Han Choi, Hyung Bin Ham, Sung Jun Hwang, Jun Hyung Lee, Hyun Jong Cho, Wei Soo Kang, Byung Jo Chae (Korea)

Animal Products

- 1002** Characterisation of fungal contamination sources for use in quality management of cheese production farms in Korea
Sujatha Kandasamy, Won Seo Park, Jayeon Yoo, Jeonghee Yun, Han Byul Kang, Kuk-Hwan Seol, Mi-Hwa Oh, Jun Sang Ham (Korea)

Animal Biotechnology

- 1012** Effect of all-trans retinoic acid on casein and fatty acid synthesis in MAC-T cells
Xian-Dong Liao, Chang-Hai Zhou, Jing Zhang, Jing-Lin Shen, Ya-Jing Wang, Yong-Cheng Jin, Sheng-Li Li (China)
- 1023** Histone deacetylases inhibitor and RAD51 recombinase increase transcription activator-like effector nucleases-mediated homologous recombination on the bovine β -casein gene locus
Da Som Park, Se Eun Kim, Deog-Bon Koo, Man-Jong Kang (Korea)

Environment and Management

- 1034** The influence of shade allocation or total shade plus overhead fan on growth performance, efficiency of dietary energy utilization, and carcass characteristics of feedlot cattle under tropical ambient conditions
Beatriz I. Castro-Pérez, Alfredo Estrada-Angulo, Francisco G. Ríos-Rincón, Víctor H. Núñez-Benítez, Carlos R. Rivera-Méndez, Jesús D. Urías-Estrada, Richard A. Zinn, Alberto Barreras, Alejandro Plascencia (México)
- 1042** Differences in microbiome and virome between cattle and horses in the same farm
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