

Genetics, Animal Genetic Resources and Breeding*Review Paper*

Genetically modified farm animals and fish in agriculture: A review

F. Forabosco, M. Löhmus, L. Rydhmer and L.F. Sundström 1

*Regular Papers*Detection and genetic characterization of ovine *CSN1S2**B** polymorphisms and their associations with milk production traits

J.M. Corral, J.A. Padilla, M. Izquierdo, M. Martínez-Trancón, J.C. Parejo, J. Salazar and F.I. Hernández-García. . . . 10

Comparison of Poisson, probit and linear models for genetic analysis of number of inseminations to conception and success at first insemination in Iranian Holstein cows

R. Abdollahi-Arpanahi, F. Peñagaricano, H. Aliloo, H. Ghiasi and J.I. Urioste 20

Genetic parameters of body weight and egg traits in meat-type quail

L.P. Silva, J.C. Ribeiro, A.C. Crispim, F.G. Silva, C.M. Bonafé, F.F. Silva and R.A. Torres. 27

Estimates of genetic parameters for monthly egg production in a commercial female broiler line using random regression models

N. Farzin, R. Vaez Torshizi, A. Gerami and A. Seraj 33

Genomic-polygenic evaluation for ultrasound and weight traits in Angus–Brahman multibreed cattle with the Illumina3k chip

M.A. Elzo, C.A. Martinez, G.C. Lamb, D.D. Johnson, M.G. Thomas, I. Misztal, D.O. Rae, J.G. Wasdin and J.D. Driver. 39

Short Communications

Mitochondrial DNA diversity in Indian sheep

R. Arora, H.S. Yadav and B.P. Mishra 50

Polymorphism of the *MHC-DQA2* gene in the Chios dairy sheep population and its association with footrot

A.I. Gelasakis, G. Arsenos, J. Hickford, H. Zhou, A. Psifidi, G.E. Valergakis and G. Banos 56

Ruminant Nutrition

Effects of maternal nutrition on development of gastrointestinal tract of bovine fetus at different stages of gestation

M.S. Duarte, M.P. Gionbelli, P.V.R. Paulino, N.V.L. Serão, T.S. Martins, P.I.S. Tótaró, C.A. Neves, S.C. Valadares Filho, M.V. Dodson, M. Zhu and M. Du 60

Effects of rumen-protected gamma-aminobutyric acid on feed intake, performance and antioxidative status in transition cows

D.M. Wang, H.Y. Liu, C. Wang, J.X. Liu and J.D. Ferguson. 66

Effects of soybeans roasting and monensin on milk production and composition and milk fatty acids profile of lactating dairy cows

E. Abdi, F. Fatahnia, M. Dehghan Banadaki, A. Azarfar and A. Khatibjoo 73

(Contents continued on last page of this issue)

(Contents continued)

<i>In situ</i> ruminal crude protein degradability of by-products from cereals, oilseeds and animal origin G. Habib, N.A. Khan, M. Ali and M. Bezabih	81
Effects of cellooligosaccharide or a combination of cellooligosaccharide and live <i>Clostridium butyricum</i> culture on performance and intestinal ecology in Holstein calves fed milk or milk replacer Y. Uyeno, K. Kawashima, T. Hasunuma, W. Wakimoto, M. Noda, S. Nagashima, K. Akiyama, M. Tabata and S. Kushibiki	88
Manipulation of <i>in vitro</i> ruminal fermentation and digestibility by dried rumen digesta A. Cherdthong and M. Wanapat	94
Effects of microbial colonization in the rumen on concentration and degradability estimates of fibre fractions J.M. Arroyo and J. González	101
Shrub vegetation consumption by goats in the southwestern Iberian Peninsula J.M. Mancilla-Leytón, R. Pino Mejías and A. Martín Vicente	108
Non-Ruminant Nutrition	
Effects of synbiotic on the intestinal morphology and humoral immune response in broiler chickens H. Hassanpour, A.K.Z. Moghaddam, M. Khosravi and M. Mayahi	116
Livestock Farming Systems and Management	
The effect of stocking rate and calving date on milk production of Holstein–Friesian dairy cows B. McCarthy, L. Delaby, K.M. Pierce, A. Brennan and B. Horan	123
Suitability of different dairy cow types for an Alpine organic and low-input milk production system M. Horn, A. Steinwigger, J. Gasteiner, L. Podstatzky, A. Haiger and W. Zollitsch.	135
Reproduction Physiology	
Effect of l-Arginine and spermine-NONOate on motility, viability, membrane integrity and lipid peroxidation of Murrah buffalo (<i>Bubalus bubalis</i>) spermatozoa R.A. Siddique and S.K. Atreja	147
Uterine spaciousness during embryo and fetal development in multiparous sows improves birth weight and postnatal growth performance S. Dhakal, C. Auckland, Y. Huang, B. Ambros, T. Duke, D.G. Wilson, G. Foxcroft and J. Harding	154
Effects of proinogenic ingredients on serum concentration of insulin and progesterone in non-lactating cows T. Leiva, R.F. Cooke, A.C. Abouin, H.F. Soares, M. Barbosa, A.M.L. Madureira, M.A.F. Borges and J.L.M. Vasconcelos	165