

Vol. 18, No. 1

CONTENTS

2009

Application of nutrigenomics tools in animal feeding and nutritional research Z. Zduńczyk (Olsztyn, Poland) and Ch.S. Pareek (Toruń, Poland)	3
Polar overdominance - a putative molecular mechanism and the new examples in mammals M. Oczkowicz (Balice, Poland)	17
Ruminants	
Protected methionine as a methyl-group donor for dairy cows fed diets with different starch sources in the transition period J.A. Strzetelski (Balice, Poland), Z.M. Kowalski (Kraków, Poland), J. Kowalczyk (Jabłonna, Poland), F. Borowiec (Kraków, Poland), S. Osieglowski (Pawłowice, Poland) and K. Ślusarczyk (Balice, Poland)	28
Inbreeding and inbreeding depression on body weight in sheep E. Barczak, A. Wolc (Poznań, Poland), J. Wójtowski, P. Ślósarz (Suchy Las, Poland) and T. Szwaczkowski (Poznań, Poland)	42
The metabolism of linseed lignans in rumen and its impact on ruminal metabolism in male goats W. Zhou, Z.K. Han and W.Y. Zhu (Nanjing, P.R. China)	51
Monogastrics	
Molecular characterization and tissue transcription profile analyses of three novel pig genes - NDP, CLN3 and NCF1 G.P. Wang, Y.Y. He, S.F. Hu, W. Liu (Changsha, P.R. China) and G.Y. Liu (Kunming, P.R. China)	61
A note on associations between polymorphism within the 2,4-dienoyl-CoA reductase gene (<i>DECRI</i>) and growth rate of Polish Landrace boars S. Kamiński, P. Brym and E. Wójcik (Olsztyn, Poland)	71
The feeding and rearing systems of Iberian pigs affect the lipid composition and texture profile of dry-cured loin E. Soto, L. de la Hoz, J.A. Ordóñez, B. Herranz, E. Hierro, C.J. López-Bote and M.I. Cambero (Madrid, Spain)	78

The effects of supplementing sodium selenite and selenized yeast to the diet for laying hens on the quality and mineral content of eggs H. Arpášová (Nitra, Slovak Republic), V. Petrovič, M. Mellen, M. Kačániová, K. Čobanová and L. Leng (Košice, Slovak Republic)	90
Quality characteristics of <i>n-3</i> polyunsaturated fatty acid-enriched eggs A. Laca, B. Paredes and M. Díaz (Oviedo, Spain)	101
Effect of enzyme supplementation of diets based on maize or hominy feed on performance and nutrient digestibility in broilers S. Kaczmarek, M. Bochenek, D. Józefiak and A. Rutkowski (Poznań, Poland)	113
Chemical composition and nutritional value of different wheat cultivars for broiler chickens J. Barteczko, R. Augustyn, O. Lasek (Kraków, Poland) and S. Smulikowska (Jabłonna, Poland)	124
Other topics	
Influence of docosahexaenoic acid on the concentration of fatty acids and volatile fatty acids in rumen fluid analysed by a rumen-simulation techniques L. Liu, J.Q. Wang, D.P. Bu, S.J. Liu, S. Liang, K.L. Liu, H.Y. Wei and L.Y. Zhou (Beijing, P.R. China)	132
Effects of live and autoclaved yeast cultures on ruminal fermentation <i>in vitro</i> H. Oeztuerk (Ankara, Turkey)	142
Comparative ligninolytic potential of <i>Phlebia</i> species and their role in improvement of <i>in vitro</i> digestibility of wheat straw D.S. Arora and R.K. Sharma (Amritsar, India)	151
Suitable method for simultaneous and specific detection of maize (<i>Zea mays</i> L.) and genetically modified soyabean (<i>Glycine max</i> L.) in animal feeds A. Gómez Garay, I. Garrido Mayas and G. Vergara García (Alcalá de Benares, Spain)	162
Validation of a method for simultaneous determination of tocopherols and tocotrienols in cereals using Normal Phase HPLC R. Gašior (Morawice, Poland), M. Pieszka and F. Brzóska (Balice, Poland)	173

Ruminants

Seasonality in milk performance and reproduction of dairy cows in low-input farms depending on feeding system J. Frelich, M. Šlachta (České Budějovice, Czech Republic), J. Szarek, A. Węglarz and P. Zapletal (Kraków, Poland)	197
--	-----

The use of early lactation milk protein content to predict subsequent fertility performance and likelihood of culling, in commercial dairy cows M.J. Tena-Martínez, D. Val-Arreola (Michoacan, Mexico), J.D. Hanks and N.M. Taylor (Reading, United Kingdom)	209
Meat quality of the <i>Longissimus</i> muscle of bulls and steers (1/2 Nellore vs 1/2 Simmental) finished in feedlot R.M. Prado, I.N. Prado, J.A. Marques, P.P. Rotta, J.V. Visentainer, R.R. Silva and N.E. Souza (Maringá, PR Brazil)	221
The effect of breed on the chemical composition and fatty acid profile of the <i>Longissimus dorsi</i> muscle of Brazilian beef cattle J.M. Prado, I.N. Prado., J.V. Visentainer, P.P. Rotta (Maringá, PR Brazil), D. Perotto, J.L. Moletta (Curitiba, PR Brazil), R.M. Prado and T. Ducatti (Maringá, PR Brazil)	231
Effect of vitamin E and selenium supplementation on haematology, blood chemistry and thyroid hormones in male buffalo (<i>Bubalus bubalis</i>) calves P.L. Shinde, R.S. Dass and A.K. Garg (Izatnagar, India)	241
Effects of oocyte quality and semen donor on the efficiency of <i>in vitro</i> embryo production in cattle L. Kańska-Książkiewicz (Kolbuszowa, Poland), J. Opiela and B. Ryńska (Balice, Poland)	257
Molecular cloning, sequence characteristics analysis and tissue expression profiles of three novel genes <i>RhoB</i> , <i>RhoF</i> and <i>RhoH</i> from the Black-boned sheep (<i>Ovis aries</i>) W. Li, Zh. Chen (Changsha, China), L. Yang, Y. Tan, Y. He, Q. Liu, G. Wu, B. Peng, H. Mao and W. Deng (Kunming, P.R. China)	271
Effects of supplementing malate and yeast culture (<i>Saccharomyces cerevisiae</i>) on the rumen enzyme profile and growth performance of lambs A. Moharrery and E. Asadi (Shahrekord, Iran)	283
Monogastrics	
Analysis of variability of plasma leptin and lipids concentration in relations to glycolytic potential, intramuscular fat and meat quality in P76 pigs W. Przybylski, J. Gromadzka-Ostrowska, E. Olczak, D. Jaworska, S. Niemyjski (Warszawa, Poland) and V. Santé-Lhoutellier (Saint Genés Champanelle, France)	296
Laying performance and nitrogen balance in hens fed organic diets with different energy and methionine levels J. Koreleski and S. Świętkiewicz (Balice, Poland)	305
The effect of low-glucosinolate rapeseed meal in diets with multi-enzyme supplementation on performance and protein digestibility in broiler chicks M. Toghyani, A. Mohammadsalehi, A. Gheisari and S.A. Tabeidian (Isfahan, Iran)	313

Morphology of the intestinal mucosa and growth performance of chickens fed diets containing sugar cane extract O. Khambualai, K. Yamauchi (Kagawa-ken, Japan), K. Koge and J. Kashimura (Kanagawa, Japan)	322
The effect of dietary sodium bicarbonate on performance and blood parameters of broiler chickens and local Balady breed inoculated with <i>Salmonella gallinarum</i> H.A. Zakaria, M.J. Tabbaa, K.M. Alshawabkeh and K. Altaif (Amman, Jordan)	335
Dietary selenized yeast and CLA isomer mixture affect fatty- and amino acid concentrations in the femoral muscles and liver of rats M. Czauderna, J. Kowalczyk, K.M. Niedźwiedzka (Jabłonna, Poland), L. Leng and K. Cobanova (Košice, Slovak Republic)	348
Other topics	
A note on comparison of two extraction methods used to quantify the C18 fatty acids in feed and digesta of ruminants A. Cieślak (Poznań, Poland), A. Machmüller (Zurich, Switzerland), M. Szumacher-Strabel (Poznań, Poland) and M.R.L. Scheeder (Zollikofen, Switzerland)	362

Vol. 18, No. 3**CONTENTS****2009**

Oocyte and embryo cryopreservation – state of art and recent developments in domestic animals B. Gajda and Z. Smorąg (Balice, Poland)	371
Ruminants	
The effect of feeding soyabeans with different particle size on the content of conjugated linoleic acid and other fatty acids of <i>longissimus dorsi</i> muscle, backfat and liver of beef cattle W. Sun, G.Y. Zhao (Beijing, P.R. China), E.L. Song, F.C. Wan, X.M. Liu and W.J. Ma (Jinan, P.R. China)	388
Performance of Holstein calves fed milk-replacer and starter mixture supplemented with probiotic feed additive Z.M. Kowalski, P. Górka (Kraków, Poland), A. Schlagheck (Lohne, Germany), W. Jagusiak, P. Micek (Kraków, Poland) and J. Strzetelski (Balice, Poland)	399
The effect of vanilla flavoured calf starter on performance of Holstein calves M.H. Fathi, A. Riasi and A. Allahresani (Birjand, Iran)	412
Milk yield and composition in line 05 dairy ewes as related to somatic cell counts J. Olechnowicz, J.M. Jaśkowski, P. Antosik and D. Bukowska (Poznań, Poland)	420

The effect of grazing on the composition of conjugated linoleic acid isomers and other fatty acids of milk and cheese in goats F. Pajor, O. Galló, O. Steiber, J. Tasi and P. Póti (Gödöllő, Hungary)	429
Effect of oils rich in linoleic acid on <i>in vitro</i> rumen fermentation parameters of sheep, goats and dairy cows M. Szumacher-Strabel, A. Cieślak and A. Nowakowska (Poznań, Poland)	440
Monogastrics	
Betaine, organic acids and inulin do not affect ileal and total tract nutrient digestibility or microbial fermentation in piglets A. Ratriyanto, R. Mosenthin, D. Jeziorny, N. Sauer and M. Eklund (Stuttgart, Germany)	453
Influence of tetrabasic zinc chloride and copper sulphate on growth performance and some physiological parameters in the digestive tract of weanling piglets B. Zhang and Y. Guo (Beijing, P.R. China).....	465
The effect of fat-coated organic acid salts and a feed enzyme on growth performance, nutrient utilization, microflora activity and morphology of the small intestine in broiler chickens S. Smulikowska, J. Czerwiński, A. Mieczkowska and J. Jankowiak (Jabłonna, Poland)	478
The influence of genetically modified Bt maize MON 810 in feed mixtures on slaughter, haematological and biochemical indices of broiler chickens V. Řehout, J. Kadlec, J. Čítek, E. Hradecká, L. Hanusová, B. Hosnedlová and F. Lád (České Budějovice, Czech Republic)	490
Effect of dietary supplementation of trace elements on the lipid peroxidation in broiler meat assessed after a refrigerated and frozen storage V. Petrovič, S. Marcinčák, P. Popelka (Košice, Slovak Republic), L. Nollet (Deinze, Belgium) and G. Kováč (Košice, Slovak Republic)	499
Performance, intestinal microflora, and blood constituents in finishing turkeys fed diets supplemented with dietary mannan oligosaccharide and live yeast Y. Konca, F. Kirkpinar, S. Mert and B. Kayhan (Izmir, Turkey)	508
The effect of selenium source on performance, carcass traits, oxidative status of the organism and meat quality of turkeys D. Mikulski, J. Jankowski, Z. Zduńczyk, M. Wróblewska (Olsztyn, Poland), K. Sartowska (Dunboyne, Ireland) and T. Majewska (Olsztyn, Poland)	518
16S rRNA-based analysis of bacterial diversity in the microbial flora of the goose intestinal tract Z.Y. Wang, S.R. Shi, M.J. Xu and H.M. Yang (Yangzhou, P.R. China)	531
Dietary fat type and level affect thyroid hormone plasma concentrations in rats K. Lachowicz, I. Koszela-Piotrowska and D. Rosołowska-Huszcz (Warsaw, Poland)	541

Standardized ileal digestibility of amino acids from several cereal grains and protein-rich feedstuffs in broiler chickens at the age of 30 days W. Szczurek (Balice, Poland)	662
Copper balance, bone mineralization and the growth performance of turkeys fed diet with two types of Cu supplements D. Mikulski, J. Jankowski, Z. Zduńczyk, M. Wróblewska and M. Mikulska (Olsztyn, Poland)	677
Effects of growth substrate and partial removal of nucleic acids in the production of bacterial protein meal on amino acid profile and digestibility in mink A. Skrede, L.T. Mydland and M. Øverland (Ås, Norway)	689
Effect of spent brewer's yeast and biological β -glucans on selected parameters of lipid metabolism in blood and liver in rats B. Waszkiewicz-Robak and E. Bartnikowska (Warsaw, Poland)	699
Effects of inulin supplemented to cellulose-free or cellulose-rich diets on caecal environment and biochemical blood parameters in rats J. Juśkiewicz, M. Wróblewska, J. Jarosławska, P. Baliński (Olsztyn, Poland), P. Matusevičius (Kaunas, Lithuania), P. Zduńczyk, E. Biedrzycka and Z. Zduńczyk (Olsztyn, Poland)	709
The fluorescence <i>in situ</i> study of highly repeated DNA sequences in domestic horse (<i>Equus caballus</i>) and domestic donkey (<i>Equus asinus</i>) - Advantages and limits of usefulness in phylogenetic analyses M. Bugno-Poniewierska (Balice, Poland), M. Wnuk (Rzeszow, Poland), W. Witariski (Kraków, Poland) and E. Słota (Balice, Poland)	723
Other topics	
Development and use of quantitative competitive PCR assay for detection of poultry DNA in fish meal H. Farajollahi, A.A. Aslaminejad, M.R. Nassiry, M.H. Sekhavati, M. Mahdavi and A. Javadmanesh (Mashhad, Iran)	733
<i>In vitro</i> gas production kinetics of whole citrus fruits O. Piquer (Moncada, Spain), C. Casado, S. Biglia, C. Fernández, E. Blas and J.J. Pascual (Valencia, Spain)	743
<i>In vitro</i> fibrolytic activity of the anaerobic fungus, <i>Caecomyces</i> sp., immobilized in alginate beads R. Nagpal, A.K. Puniya and K. Singh (Haryana, India)	758
Author index	769
Contents of Journal of Animal and Feed Sciences, Volume 18	779