

## CONTENTS OF JOURNAL OF ANIMAL AND FEED SCIENCES

### Volume 8

VOL. 8, No. 1

1999

Chemical composition, including amino acid, mineral, and alkaloid contents, in seeds of three lupin species cultivated in Poland J. Wasilewko and L. Buraczewska (Jabłonna, Poland) .....	1
Assessment of ileal digestibility of lupin amino acids and their use in formulating diets for pigs J. Wasilewko, J. Gdalia, L. Buraczewska (Jabłonna, Poland) and In K. Han (Seoul, Korea) ...	13
Flux of amino acids and peptides across the portal vein-drained tissue of pigs W.R. Caine, M.W.A. Verstegen (Wageningen, The Netherlands), W.C. Sauer (Edmonton, Canada), S. Tamminga and P. van Leeuwen (Wageningen, The Netherlands) .....	27
Influence of electronically controlled individual feeding on behaviour and reproductive performance of pregnant sows J. Nowachowicz, G. Michalska, W. Kapelański and J. Kapelańska (Bydgoszcz, Poland) ...	45
Heterosis for growth related traits in White Plymouth Rock and Single Comb White Leghorn reciprocal crosses reared under two crude protein regimens S.N. Nahashon, K.L. Ayorinde, P. Drummond, M. Dawes and E.J. Smith (Tuskegee, USA) .....	51
Effects of different stressors on laying rate and selected blood indices in reproductive ducks H. Koniecka (Poznań, Poland), J.M. Książkiewicz (Dworzyska, Poland) and L. Nogowski (Poznań, Poland) .....	63
Regression equations for estimating the meat and fat content in the broiler carcasses R. Bochno, J. Rymkiewicz and M. Janiszewska (Olsztyn, Poland) .....	73
Comparison of blood plasma growth hormone levels in young dairy and beef cattle R. Grochowska (Jastrzębiec, Poland), M. Snochowski, E. Wolińska-Witort (Jabłonna, Poland) and Z. Reklewski (Jastrzębiec, Poland) .....	81
Milk yield and composition of dairy cows fed a diet with evening primrose ( <i>Oenothera paradoxa</i> ) full fat seeds or oil cake J.A. Strzelelski (Balice, Poland), J. Kowalczyk (Jabłonna, Poland), T. Stasiniewicz, E. Lipiarska, S. Osiegłowski and K. Bilik (Balice, Poland) .....	89
Effect of different dietary fat on fatty acids composition in plasma and <i>M. longissimus dorsi</i> in rats E. Sawosz, J. Chachułowa, R. Lechowski, Sz. Fiedorowicz and I. Kosicradzka (Warszawa, Poland).....	95

Myoinositol augments insulin release from perfused rat pancreas T. Szkudelski, J. Chichlowska and A. Kliber (Poznań, Poland) .....	107
Fermentation of glucose and xylose in <i>Prevotella ruminicola</i> AR29 L. Kovář, O. Savka, D. Dušková and M. Marounek (Praha, Czech Republic) .....	115
A note on metabolisable energy value of molasses for ostriches Cilliers S.C. and J. Sales (Matieland, South Africa) .....	123
Editorial news and events .....	127

**Vol. 8, No. 2 1999**

Nitrogen secretion and absorption in different segments of the digestive tract estimated by digesta exchange between $^{15}\text{N}$ -labelled and unlabelled sheep K. Krawietzki, A. Sandek (Rostock, Germany), J. Kowalczyk (Jabłonna, Poland), F. Krcienbring (Rostock, Germany), T. Żebrowska, B. Skiba (Jabłonna, Poland), J. Voigt, M. Gabel and H. Hagemcister (Rostock, Germany) .....	129
Comparison of meat quality in young Black-and-White breed bulls and their hybrids with beef breeds Groth I., Z. Wielgosz-Groth, Z. Kijak, J. Pogorzelska and M. Wroński (Olsztyn, Poland) .....	145
Performance of growing/finishing pigs fed untreated or micronized hullless barley-based diets with or without $\beta$ -glucanase P.A Thacker and G.L. Campbell (Saskatoon, Canada) .....	157
Nutritional value of diets containing field bean ( <i>Vicia faba</i> L.) seeds with high or low proanthocyanidin levels for pig M. Flis, W. Sobotka, C. Purwin and Z. Zduńczyk (Olsztyn, Poland) .....	171
Evaluation of quality protein maize as a feed ingredient for layer pullet S.A. Osei, H.K Dei and A.K. Tuah (Kumasi, Ghana) .....	181
Additive and additive-by-additive genetic variability of productive traits in laying hens T. Szwaczkowski (Poznań, Poland) .....	191
A note on ryanodine receptor gene ( <i>rry 1</i> ) occurrence in the anserine genome P. Gronek, D. Napierała, A. Pławski, A. Rosiński, R. Stomski and T. Banasiewicz (Poznań, Poland) .....	203
Relation among blood plasma total lipids, cholesterol, glucose and urea concentrations, and reproductive performance in Bohemian Spotted cows L. Máchal, G. Chládek and J. Žižlavský (Brno, Czech Republic) .....	209
Cattle twins after transfer of demi-embryos derived from zona-perforated blastocysts M. Skrzyszowska, Z. Smorąg, L. Kątska and M. Bochenek (Balice, Poland) .....	223
Experimental intestinal stress induced by duodenal distention in sheep B.F. Kania, M. Zaremba-Rutkowska (Warszawa, Poland) and K. Romanowicz (Jabłonna, Poland) .....	233

Urine pH as an index for calculating the amount of bicarbonate for treatment of acidotic calves T. Lubetskaya and D. Melnichuk (Kiev, Ukraine) .....	247
Histological changes in the oviduct of rabbits after administration of cadmium P. Massányi, V. Uhrín, R. Toman, J. Kováčik and D. Biro (Nitra, Slovakia) .....	255
Passage of large plastic particles through the digestive tract of lactating and dry cows J. Trnáctý, M. Šimek (Pohořelice, Czech Republic), L. Zeman (Brno, Czech Republic) and J. Harazim (Opava, Czech Republic) .....	263
Determination of 2,6-diaminopimelic acid in bacteria, ruminal and duodenal digesta using HPLC with fluorescence or UV detection M. Czauderna and J. Kowalczyk (Jabłonna, Poland) .....	273
Editorial news and events .....	289

**Vol. 8, No. 3** 1999

A review of starch digestion in the lactating dairy cow and proposals for a mechanistic model: 1. Dietary starch characterisation and ruminal starch digestion J.A.N. Mills, J. France (Reading, UK) and J. Dijkstra (Wageningen, The Netherlands) .....	291
The effect of protected lysine and methionine on milk yield and its composition in lactating dairy cows fed grass silage-based rations P.M. Pisulewski and Z.M. Kowalski (Kraków, Poland) .....	341
The effect of protected methionine on milk yield and its composition in lactating dairy cows fed grass silage-based diets P.M. Pisulewski and Z.M. Kowalski (Kraków, Poland) .....	355
Effect of linseed oil fatty acid calcium salts and vitamin E on milk yield and composition F. Brzóska, R. Gąsior, K. Sala (Kraków, Poland) and W. Zyzak (Lipowa, Poland) .....	367
Influence of maize grain drying process on its <i>in situ</i> degradability in dairy cows A. Matthé, P. Lebzien and G. Flachowsky (Braunschweig, Germany) .....	379
Nutritive value of feather keratin meals for ruminants J.A. Strzelinski (Balice, Poland), J. Kowalczyk (Jabłonna, Poland), B. Niwińska, K. Bilik and K. Maciaszek (Balice, Poland) .....	387
Feed supplementation of grazing Merino ewes during mid-pregnancy: effect on changes in body composition and on the <i>conceptus</i> P. Frutos, O. Buratovich, F.J. Giráldez and A.R. Mantecón (León, Spain) .....	395
A note on the performance of crossbred lambs fed a concentrate mixture containing a high level of double improved rapeseed oilmeal A. Baranowski and J. Klewiec (Jastrzębiec, Poland) .....	407
A note on ruminal <i>in situ</i> degradability and <i>in vitro</i> gas production of some West African grass species and multipurpose legume tree leaves A.Teguia (Dschang, Cameroon), E.R. Ørskov and D. J. Kyle (Bucksburn, Scotland) .....	415

Determination of endogenous nitrogen associated with bacteria in ileal digesta of pigs receiving cereal-based diets with or without fish meal and various fibre supplements by using a simple <sup>15</sup> N-dilution technique J. Bartelt (Berlin, Germany), W. Drochner (Stuttgart, Germany), K.-P. Götz (Berlin, Germany), J. Szakacz, Z. Čerešnáková and A. Sommer (Nitra, Slovakia) .....	425
Effect of dietary fish oil supplied to pigs from weaning to 60 kg liveweight on performance, tissue fatty acid composition and palatability of pork when slaughtered at 100 kg liveweight Ch. Lauridsen (Foulum, Denmark), G. Andersen (Copenhagen, Denmark), M. Andersson (Roskilde, Denmark), V. Danielsen, R. Engberg and K. Jakobsen (Foulum, Denmark) .....	441
Influence of NSP-degrading enzymes on pH, ammonia and of volatile fatty acids concentration in the stomach and small intestine of growing pigs B. Haberer, E. Schulz, K. Aulrich and G. Flachowsky (Braunschweig, Germany) .....	457
Interactions between dietary fat type and exogenous enzyme supplementation of broiler diets based on maize, wheat, triticale or barley S. Dänicke, H. Jeroch (Halle-Wittenberg, Germany), O. Simon (Berlin, Germany) and M.R. Bedford (Malborough, UK) .....	467
Influence of dietary lecithin and oils rich in n-3 polyunsaturated fatty acids (PUFA) on the fatty acid content of rat muscle and serum E. Sawosz, J. Chachulowa, R. Lechowski and Sz. Fiedorowicz (Warszawa, Poland) .....	485
Book reviews .....	499

**Vol. 8, No. 4****1999**

A review on starch digestion in the lactating dairy cow and proposals for a mechanistic model: 2. Postruminal starch digestion and small intestinal glucose absorption J.A.N. Mills, J. France (Reading, UK) and J. Dijkstra (Wageningen, The Netherlands) .....	451
The effect of dietary concentration of crude protein and Synovex-C on skeletal growth of dairy heifers A. Shamay, I. Bruckental, U. Moallem and H. Barash (Bet Dagan, Israel) .....	483
Effect of diets with hydrolysed feather keratin meal on milk yield and composition in dairy cow and calf performance J.A. Strzelinski (Balice, Poland), J. Kowalczyk (Jabłonna, Poland), K. Krawczyk, S. Osiegiowski, T. Stasiniewicz and E. Lipiarska (Balice, Poland) .....	497
Performance of American bison ( <i>Bos bison</i> ) in feedlots J. S. Church R. J. Hudson (Edmonton, Canada) and B. D. Rutley (Dawson Creek, Canada) .....	513
A note on defleecing of Angora and Spanish goats using Leucaena A. J. Litherland, A. Yami, T. Sahlu and A. L. Goetsch (Langston, USA) .....	525
Performance, body and carcass composition and bone characteristics of pigs fed rapeseed and soyabean meal-cereal diets supplemented with microbial phytase H. Fandrejewski, D. Weremko, S. Raj, G. Skiba (Jabłonna, Poland) and In K. Han (Seoul, Korea) .....	533

Performance of young growing pigs (17-34 kg) fed rye-based diets selected for reduced viscosity P.A. Thacker, G.L. Campbell and G.J. Scoles (Saskatoon, Canada) .....	549
Twenty-four hour changes in androgens, cortisol and prolactin concentrations in primitive Asiatic pigs J. Gromadzka-Ostrowska (Warszawa, Poland), B. Barcikowski (Jabłonna, Poland) and K. Jakubów-Durska (Warszawa, Poland) .....	557
Seasonal and age-related variations of plasma concentrations of androgens and prolactin in crossbred (3/4 wild, 1/4 domestic) boars J. Gromadzka-Ostrowska (Warszawa, Poland), B. Barcikowski (Jabłonna, Poland) and B. Zalewska (Warszawa, Poland) .....	569
Influence of water extract viscosity and exogenous enzymes on nutritive value of rye hybrids in broiler diets D. Boros (Radzików, Poland) and M.R. Bedford (Malborough, UK) .....	579
Direct, maternal and cytoplasmic variance estimates of egg production traits in laying hens T. Szwaczkowski (Poznań, Poland), M. Bednarczyk and K. Kiełczewski (Zakrzewo, Poland) .....	589
Composition and <i>in vitro</i> digestibility of leaves and stems of grasses and legumes harvested from permanent mountain meadows at different stages of maturity H. Ammar, S. López, O. Bochi-Brum, R. García and M.J. Ranilla (León, Spain) .....	599
Importance of washing the omasum for successful defaunation of sheep T. Michałowski (Jabłonna, Poland), J. Harmeyer (Hannover, Germany) and G. Belzecki (Jabłonna, Poland) .....	611
Editorial news and events .....	621
Author index .....	623
Contents of Journal of Animal and Feed Sciences, Volume 8 .....	631