

Session 1: Protein sources

- 1.1 The effects of pre-pellet cracked maize and phytase inclusions in maize-soy diets with three levels of crude protein (22, 19.5 and 17%) evaluated via a Box- Behnken response surface design.
A. Moss, P. Chrystal, Y. Dersjant-Li, S. Liu, P. Selle
- 1.2 Effect of metabolizable energy and balanced essential amino acids with reduced crude protein levels on egg production performances and egg composition of brown laying hens.
K. Soisuwan, N. Chauyuchuwong
- 1.3 Effect of low protein diets on litter quality and incidence of footpad dermatitis in broilers
L. Perić, K. Dublec, D. Žikić, M. Đukić-Stojčić, L. Pál
- 1.4 Influence of trypsin inhibitors in soybean meal on protein digestion in broiler chickens: amino acid digestibility.
R. Angel, N. Ruiz, J. O. Sorbara
- 1.5 The impact of starch, protein and fat digestive dynamics on growth performance in broiler chickens from 7-28 days.
S. Liu, P. Chrystal, A. Moss, P. Selle
- 1.6 Application of near-infrared technology to predict wheat apparent metabolizable energy on adult roosters.
M. Doret-Aubertot, J.-F. Faivre, N. Bernard, S. Toussaint, M. Bournazel, S. Klein
- 1.7 Effect of dietary inclusion of rice-DDGS on performance and nutrient retention of WL layers.
M. V. L. N. Raju, R. N. Chatterjee, S. V. Rama Rao, B. Prakash, S. S. Paul
- 1.8 In vitro degradation of soybean and sorghum anti-nutritional factors (ANFs) by a commercial mono component protease.
V. Jensen, L. Tvedebrink Haar
- 1.9 Effect of extraction methods on protein profiles of paddy and germinated paddy rice.
W. Likittrakulwong, P. Poolprasert, T. Incharoen
- 1.10 Feeding high-oleic peanuts and/or oleic acid to layer hens enhances egg yolk color and egg nutrition in shell eggs.
O. Toomer, T. Vu, E. Sanders, R. Malheiros, K. Anderson
- 1.11 Inclusion of *Neurospora intermedia* in starter diet to broilers with immediate or delayed access to feed post hatch.
E. Ivarsson, J. Währn, M. Boyner, P. Ellström, H. Wall
- 1.12 Effect of yellow lupine seeds (*Lupinus luteus* L.) and *Tenebrio molitor* larvae meal in the diet for broiler chickens on production parameters and sensory quality of the meat.
S. Orczewska-Dudek, M. Pietras, W. Szczurek, M. Pieszka
- 1.13 The effect of increasing level of repassed meal in diet on laying hens performance and egg shell thickness.
M. Hejdysz, S. A. Kaczmarek, M. Kubiś, K. Perz, A. Rutkowski
- 1.14 Nutritional analysis of solid-state fermented canola meal (an improved protein source for broilers).
O. Olukomaiya, C. Fernando, R. Mereddy, X. Li, Y. Sultanbawa
- 1.15 Silages as a novel feed ingredient for poultry?
M. Lourenço, E. Delezie, C. van Poucke, L. Sobry, E. Wambacq, J. Latré
- 1.16 Functional protein rich ingredient increases broiler performance independent of *Eimeria* challenge.
H. Schulze, D. Haese, H. V. Masey O'Neill
- 1.17 Influence of flaxseed and antioxidants association on egg quality.
C. Hamelin, N. Hubert, M. Mireaux, M. Panheleux-Lebastard
- 1.18 Requirements of digestible lysine and total sulfur amino acids in White Leghorn laying hens of Babcock strain under tropical condition.
S. V. Rama Rao
- 1.19 Effect of the inclusion of an enzymatically treated soybean protein in feed on the intestinal epithelium morphology and performance of broiler chickens.
N. Q. Thieu, A. Blanch, C. Broekner, S. H. Rasmussen
- 1.20 Comparison of the absorption kinetics of synthetic and protein-bound methionine in broiler breeder hens.
M. Zamani, M. Zaghar

Session 2: Feed additives

- 2.1 Effects of phytase supplementation on prececal amino acid digestibility of different oilseed meals in broilers.
J. Krieg, W. Siegert, J. Bock, D. Feuerstein, M. Rodehutscord

- 2.2 Barley in broiler starter diets: Effects of particle size and enzyme supplementation.
W. N. U. Perera, M. R. Abdollahi, F. Zaefarian, V. Ravindran
- 2.3 Insects full-fat meals as functional feed additives affect broiler chickens' growth performance and immune system traits.
A. Benzertiha, B. Kierończyk, P. Kołodziejcki, E. Pruszyńska-Oszmałek, M. Rawski, D. Józefiak, A. Józefiak
- 2.4 Application of low crude protein concept in common Hungarian broiler diets.
A. Barna, M. Mueller, K. Dublec, N. Such
- 2.5 The Lipid Evaluation Test: an exclusive service provides insights in lipid nutrition from an extensive field trial.
K. Bierinckx, E. Witters, M. Jansen, M. di Benedetto
- 2.6 Supplementation with a dry or liquid synergistic mixture of lysophospholipids, monoglycerides and emulsifier improves nutrient digestibility in broilers.
K. Bierinckx, G. A. Papadopoulos, A. L. Wealleans, P. Fortomaris, M. di Benedetto, M. Jansen
- 2.7 Analytical assessment of 750 field samples shows a large variation in nutritional and oxidative characteristics of fats and oils.
K. Bierinckx, E. Witters, M. Jansen, M. di Benedetto
- 2.8 Use of a capsicum based additive improved performance of broilers under summer conditions in Spain.
M. Blanch, G. Tedó, L. Mur, F. Bacha
- 2.9 Acaricidal activity of essential oils blend on *Dermanyssus gallinae* under in vitro conditions.
J. Bošnjak-Neumüller
- 2.10 Non-chemical control of poultry red mites (*Dermanyssus gallinae* De Geer, 1778): phyto-genic feed additives.
J. Bošnjak-Neumüller
- 2.11 What are the drivers of organic selenium forms efficacy: a comparison in broiler studies.
T. Guillou, M. de Marco, M. Briens
- 2.12 Anticoccidial sensitivity tests for broiler eimeria: results over the last 5 years.
E. Capron, A.-L. Ledoux, D. Vancaeynest, E. Uyttebroek
- 2.13 The effect of physicochemical properties of ZnO on the bioavailability of zinc in broilers.
D. Cardoso, A. Romeo, N. Meme, Y. Chevalier, A. Narcy
- 2.14 An innovative source of natural yellow carotenoids as a substitute to synthetic pigment for broiler skin pigmentation.
M. Castillo, C. Cousin, S. Peris, C. Alleno
- 2.15 Use of a natural antimicrobial to treat and prevent *Clostridium perfringens* induced necrotic enteritis in broilers.
J. Pié, D. Díez, C. Domenech, M. E. Rosemberg
- 2.16 Zeolites in diets for broilers.
T. Egorova, T. Lenkova, I. Sysoeva
- 2.17 Effects of an endo-1,4- β -xylanase on energy metabolisability and performance of laying hens fed wheat-based diets.
M. Francesch, J. Broz
- 2.18 Effects of inorganic P sources and low doses of phytase on P and Ca retention and bone mineralisation in broiler.
M. Francesch, P. Ader
- 2.19 The effect of cereal type, pelleting temperature and enzyme (xylanase+ β -glucanase) supplementation on performance, nutrient digestibility and digesta viscosity in broiler chickens.
M. Francesch, A. Troescher
- 2.20 Effect of an algae-clay complex on the performance of broiler chickens using a corn-soybean meal based diet.
M. Gallissot, M. Rodriguez, L. Albino, M. Angeles Rodriguez
- 2.21 Evaluation of xylanase alone or in combination with xylo-oligosaccharides on performance of broiler chickens fed corn- or wheat-based diets.
G. Gomes, T. Santos, R. Ten Doeschate, U. Aftab, S. Srinongkote, D. Creswell
- 2.22 Effects of a diet supplemented with a phytobiotic mixture, on the gene expression profile in the intestinal mucosa of broiler chicken.
M. Olvera-Garcia, A. Sanchez-Flores, G. Villar, A. Casarin, L.-M. Gomez-Osorio
- 2.23 Optimizing feed cost and performance in broiler diets based on alternative protein sources and supplemented with a protease enzyme.
G. Tactacan
- 2.24 Gut microbial profile and broiler performance with matrix protected blend of organic acid and essential oil.
G. Tactacan
- 2.25 Metabolomics analysis reveals potential benefits of organic acids in broilers exposed to *Salmonella pullorum* challenge.
D. Dai, G.-H. Qi, J. Wang, Y.-Y. Wu, Y.-M. Han

- 2.26 The association of adipogenic transcriptional and adipocyte cellularity in broiler chicken fed with conjugated linoleic acid.
S. Ramiah, Y. Meng Goh, M. Ebrahimi
- 2.27 Effect of in-ovo supplementation of betaine on production & immunity in heat stressed broiler chickens.
J. Rokade, M. Gopi, V. K. Saxena, S. K. Bhanja, K. Gautham
- 2.28 Improvement of broiler breeders performance by adding a potentiated ZnO source compared to standard ZnO.
A. Romeo, M. Barzegar, E. Darsi Arani, M. Zaghari
- 2.29 Effect of mentha piperita (peppermint) extract and its juice on performance, egg quality traits, hematological and biochemical parameters in laying hens.
A. Rahman, E. E. Gultepe, C. Uyarlar, I. Sadi Cetingul, I. Bayram, A. R. Asif
- 2.30 Effect of hydroxychloride and inorganic sources of copper, zinc and manganese on performance of broilers reared under two stocking density conditions.
Y. Ruangpanit, L. Pineda, D. Konkawat, Y. Han
- 2.31 Effect of dietary alkaline protease supplementation on the performance of broilers and layers.
M. Temptra
- 2.32 Effect of phytase on real-time gastric acid secretion and calcium solubility in the gizzard of laying hens.
S. Lee
- 2.33 Synbiotic as eco-friendly feed additive in diets of laying hens during the late laying period.
A. A. A. Abdel-Wareth
- 2.34 Bio-equivalence of performance of laying hens fed different nutrients density diets and dietary probiotic.
D. Mikulski, V. Demey, M. Mikulska, J. Jankowski
- 2.35 A novel phytase improves production performance, tibia ash content, P in egg and faecal P retention in laying hens.
L. Star, C. Kwakernaak, R. Santos, D. Feuerstein
- 2.36 Influence of the dietary buckthorn meal in high polyunsaturated fatty acids layer diets on egg quality.
T. D. Panaite, R. D. Criste, V. Nour, M. Ropota, P. R. Socoliuc, M. Saracila, C. Soica
- 2.37 A low level of C-reactive protein as a potential marker for lower inflammation in laying hens.
A. Khadem, V. Slausgalvis, V. Kliseviciute, C. Gougoulias, J. Alsaifi
- 2.38 Quails as a model for egg yolk color prediction in laying hens.
B. Vilà, S. Peris, V. Montoya, D. Ferrús, M. Castillo
- 2.39 Similar laying hens' performance between methionine sources under tropical conditions.
S. V. Rama Rao, M. V. L. N. Raju, D. Nagalaksmi, B. Prakash, D. I. Batonon-Alavo, Y. Mercier
- 2.40 Effects of dietary Flos Lonicerae-Baikal Skullcap supplementation on laying performance, immunoglobulin and antioxidant status in laying hens challenged with Salmonella Pullorum.
S.-G. Wu, H.-J. Jia, Xi.-C. Wang, H.-J. Zhang, J. Wang, G.-H. Qi
- 2.41 Effect of layer broiler breeders diet on egg production.
A. Jaroszek, R. Borkowski, A. Janowski, J. Janowska, H. Malec
- 2.42 Effects of hydroxychloride zinc, copper, manganese used in laying hens' diet on egg production, eggshell quality and serum biochemical traits.
T. T. Hoai Nguyen, R. A. Swick, M. Toghyani, S. Wu, J. R. Roberts, N. K. Morgan
- 2.43 Effects of feeding isoquinoline alkaloids on the grow performance of broiler chickens under heat-stressed conditions.
M. Kikusato, G. Xue, A. Pastor, M. Toyomizu
- 2.44 Evaluation of isoquinoline alkaloids as alternative to antimicrobial growth promoters in broiler chickens.
M. Kikusato, G. Xue, A. Pastor, M. Toyomizu
- 2.45 Effect of intermittent feeding, formic acid and phytase on performance, bone mineralization and pH in digestive tract of broiler chickens.
S. Kristoffersen, Y. Bai, A. Benzertiha, K. Itani, D. Jozefiak, B. Svihus
- 2.46 Effect of the addition of emulsifier and carbohydrase in a maize-wheat-SBM-tallow diet for broiler chickens on nutrient digestibility.
M. Kubiś, M. Hejdysz, P. Kołodziejcki, E. Pruszyńska-Oszmałek, M. Sasek, P. Konieczka, P. Górka, J. Flaga, S. Kaczmarek
- 2.47 Effect of addition of emulsifier and carbohydrase in a maize-wheat-SBM-tallow diet for broiler chickens on the activity of the microflora in the caecum.
M. Kubiś, M. Hejdysz, P. Kołodziejcki, E. Pruszyńska-Oszmałek, M. Sasek, P. Konieczka, P. Górka, J. Flaga, S. Kaczmarek
- 2.48 Organic acids combined with a higher dose of medium chain fatty acids alleviates the impact of sub-clinical necrotic enteritis on performance of broiler chickens.
A. Kumar, S. Kheravii, R. A Swick, M. Toghyani, S. Wu
- 2.49 Adaptation time affects faecal P and Ca digestibility/retention of young broiler chickens.

C. Kwakernaak, Y. Dersjant-Li

- 2.50 Adaptation time and access to litter influence P retention of hens fed a diet low in P.
C. Kwakernaak, L. Star, R. Santos, D. Feuerstein
- 2.51 Dose response of a phytase on (phytate) phosphorus, protein and ash digestibility and on bone ash in broilers.
S. Leleu, E. Delezie, M. Lourenço, L. Nollet
- 2.52 Effect of protease on the performance of broilers fed reduced energy, protein and amino acid diets.
F. L. de Souza Castro, T. Shieh, W. Kyun Kim
- 2.53 Performance of ross 308 broiler breeders with amino acid complexed trace minerals.
L. Linares, D. Neves, M. Rebollo, C. Aranibar, J. Wilson
- 2.54 Evaluation of a novel fungal β -mannanase on the performance and digestibility of broiler chickens, across a range of enzyme activity levels in feed.
S. Llamas Moya, N. F. Higgins, R. Adhikari, S. A. Kaczmarek, A. Rutkowski
- 2.55 Effects of dietary sodium diformate on broiler performance during the starter phase.
C. Lückstädt, S. Petrovic
- 2.56 Effect of methionine and guanidinoacetic acid supplementation on performance and energy metabolites in breast muscle in male broiler chickens fed corn-soybean diets.
M. Majdeddin, A. Golian, H. Kermanshahi, S. de Smet, J. Michiels
- 2.57 Effect of increasing standardized ileal digestible threonine to lysine ratios on growth performance and intestinal health parameters of coccidiosis-challenged broilers.
H. Malins, V. Daniel Naranjo, O. Abiona Olukosi
- 2.58 Effect of grinding type, particle size and xylanase inclusion in corn based pelleted diets on performance of broiler chickens.
D. M. Durán, J. F. Pérez, G. González Ortiz, S. Villagómez Estrada, H. Graham, M. Bedford
- 2.59 Inclusion level effects of a phytogenic feed additive on broiler carcass traits, availability of dietary energy and expression of genes relevant for nutrient absorptive and metabolic functions of cell growth-protein synthesis.
K. Mountzouris, V. Paraskeuas, E. Griela, A. Kern, K. Fegeros
- 2.60 Carbohydrase enzymes can improve feed energy in broiler diets.
S. Musigwa, N. Morgan, P. Cozannet, R. Swick, S. Wu
- 2.61 The influence of a phytogenic feed additive on broiler performance and immune response.
A. Möddel, M. Wilhelm
- 2.62 Comparison between an *E. coli* and a *Buttiauxella* phytase in broilers.
L. Nollet
- 2.63 Effect of a xylanase based enzyme complex on broiler production: performance and economics.
L. Nollet
- 2.64 Effect of a xylanase-based complex and a multi-enzyme cocktail broiler performance and economics.
L. Nollet
- 2.65 Comparison between 3 different phytases on the in vitro degradation of phytate of soybean and rapeseed meal.
L. Nollet
- 2.66 Comparison of an endo-1,4 β -xylanase based base enzyme complex and a multi-enzyme cocktail on performance, carcass yield and economics in heavy weight broilers.
L. Nollet
- 2.67 Comparison between two phytases (*E. coli* derived or *Pseudomonas* produced) in broiler production.
L. Nollet
- 2.68 Plant extracts to strengthen the natural defenses of poultry: Development of a selection tool.
A. Travel, E. Pampouille, F. Alleman, A. Roinsard, O. Tavares, D. Bellenot, B. Lemaire
- 2.69 Isoquinoline alkaloids further improve performance in high-yielding broiler chickens.
A. Pastor, R. Santos, L. Star
- 2.70 Effect of feeding synthetic carotenoid on immunity and shank color in broiler breeder.
G. Prabakar, M. Gopi, R. Jaydip Jaywant, G. Kolluri, J. Singh Tyagi, J. Mohan
- 2.71 Effect of supplementation broiler chicken diet with emulsifier and carbohydrases on gut enzyme activity.
E. Pruszyńska-Oszmałek
- 2.72 A modelling approach to understanding the interactions between calcium, non-phytate phosphorus, phytate phosphorus and phytase in broiler nutrition.
F. Salisbury, A. Cowieson, R. Gous
- 2.73 The effect of feeding Diamond V fermentation metabolites on reducing salmonella prevalence, numbers, and antibiotic resistance in fecal samples from commercial layers in Canada.
E. Gingerich, D. Smith, W. Michael, M. Farmer, S. Riggs, A. Byrd, S. Carlson, F. Portela, H. Pavlidis
- 2.74 A multi-enzyme complex with ferulic acid esterase improves nutrient digestibility and apparent metabolisable energy of broiler diets.

D. Gonzalez Sanchez, L. Thijs, I. Somers

- 2.75 Efficacy of synbiotic application on health status and performance of broilers compared with antibiotic growth promoters.
B. Syed, M. Mohnl
- 2.76 Effect of a new formulation of essential oil compounds on growth performance and some aspects of gastrointestinal functionality in broiler chickens.
J. Zentek, A.-L. Mary, A.-A. Séon Simon
- 2.77 Insoluble fibre in nutrition of reproductive flocks of meat hens.
R. Borkowski, A. Jaroszek, A. Janowski, J. Janowska, H. Malec
- 2.78 Effect of matrix encapsulated butyrates as performance enhancers for broiler chickens.
P. Vervenne, K. Kozłowski, B. Boomsma, J. Jankowski, H. van den Bighelaar
- 2.79 Comparing the ileal amino acid digestibility of barley, winter oats and spring oats and the effect of using beta glucanase with broiler chickens.
M. A. Rawash, N. Such, I. Koltay, L. Pál, L. Wágner, J. Poór, Á. Mezőlaki, A. Márton, A. Molnár, K. Dublecz
- 2.80 Zinc amino acid complexes improve performance of broilers in heat stress conditions.
A. de Grande, S. Leleu, E. Delezie, C. Rapp, R. Ducatelle, F. van Immerseel
- 2.81 The resilience of broilers challenged with re-used litter can be improved with phytogetic feed ingredients.
M. de Laet, A. Dierickx, F. Dias
- 2.82 Effect of reduced calcium and phosphorus and phytase supplementation on performance and tibia ash of broilers.
E. Delezie, S. Leleu, M. Lourenco, D. Feuerstein
- 2.83 Effect of xylanase and glucanase mixtures on performance, litter quality and foot pad dermatitis of broilers.
E. Delezie, S. Leleu, M. Lourenco, D. Feuerstein
- 2.84 Field evaluation of the effect of live yeast on broiler performances.
V. Demey, J.-B. Soula, A. Sacy
- 2.85 Mannan Oligo Saccharides and its effect on broiler performance: a multi-analysis.
V. Demey, F. Barbé
- 2.86 Evaluation of xylanase and a fermentable oligosaccharide on performance of broiler chickens fed energy and amino acid deficient diets.
G. González-Ortiz, M. I. García, J. Sanchez, M. R. Bedford
- 2.87 Effect of feeding glycerol esters of butyric and valeric acid on broiler performance.
S. Vaessen, J. M. Ros, O. Casabuena, C. Millán, M. I. Gracia
- 2.88 Effect of supplementation of nano-zinc on performance and expression of HSP70 in heat stressed broiler chickens.
A. Hable, A. Chabukswar, S. Jagdale, S. Bhagat
- 2.89 The effect of Spirulina Platensis on laying performance and heat stress biomarkers in Japanese quails.
H. Hajati, M. Zaghari, H. Cedraz
- 2.90 Effect of two bioactive extracts from *Olea europaea* in broiler chickens challenged with *Eimeria* spp vaccine.
J. Herrero-Encinas, D. Menoyo, M. Blanch, J. Pastor, S. Rochell
- 2.91 The benefit of applying dig P, Ca, dig AA and AME matrix value of *Buttiauxella* phytase dosed at 1000 FTU/kg in broilers fed diets containing 2000U xylanase.
B. Hillen, Y. Dersjant-Li, A. M. Debicki-Garnier, K. Lipinski
- 2.92 The benefit of applying dig P, Ca, dig AA and ME matrix value of *Buttiauxella* phytase in broilers.
B. Hillen, Y. Dersjant-Li, A. M. Debicki-Garnier, L. Pál
- 2.93 Effect of emulsifier supplements on xanthophyll absorption and egg yolk color in laying hens.
E. Holtslag, A. Pérez-Vendrell, B. Vilà, J. Estevez, S. Carné, J. Brufau
- 2.94 The effects of enzymes supplementation on the performance, carcass and tibia characteristics, some blood parameters and nitrogen and phosphorus bioavailability of broiler chickens.
Z. S. H. Ismail, M. A. Metwally, M. F. A. Farghly, A. M. Inas, M. E. Ghonime
- 2.95 Evaluation of a multi-carbohydrase and phytase complex in reduced energy, amino acids, available phosphorus and calcium diet fed to laying hens.
M. Jlalí, P. Cozannet, R. Davin, A. Preynat
- 2.96 Effects of a vectorized dietary betaine and antioxidants supplementation on growth performance and meat yields of broilers kept under high environmental temperatures.
Q. Page, A. Missohou, C. A. Konate, N. Brevault, S. Toussaint, M. Bournazel, S. Klein
- 2.97 Efficacy of a new *Bacillus subtilis* strain on post-hatch broiler performance.
F. Khattak, A.-L. Heffron
- 2.98 Effect of dietary selenium source on growth performance and muscle selenium concentration in broiler chickens.
B. Vilà, C. Torres, C. Rapp, T. Ward
- 2.99 Action of *Citrobacter braakii* phytase on diets formulated with different raw materials.
M. Tovborg, L. Skov, J. W. Wilson

- 2.100 Egg yolk pigmentation efficiency of apo-ester compared to a highly concentrated Lutein zeaxanthin product.
M. Umar Faruk
- 2.101 In ovo administration of nucleosides improved the performance and digestive enzymes activity in broilers.
V. Manojkumar, A. K. Verma, M. Saravanakumar, P. V. Beulah, M. Monika, J. Vinay R. Jaydip
- 2.102 In-feed resin acids do not accumulate in broiler breast muscle or adipose tissue.
E. Valkonen, J. Apajalahti, H. Kettunen, K. Vienola, J. Vuorenmaa, K. Raatikainen
- 2.103 Hydrolyzed yeast with beneficial effects on performance.
E. van Eerden, A. Sgherbini
- 2.104 Effect of dietary phytate and phytase level on precaecal phosphorus digestibility of monocalcium phosphate in broilers.
J. van Harn, P. Bikker, A. Mereu, M. van Krimpen
- 2.105 Reducing Salmonella Enteritidis colonization in broilers using a Clostridium butyricum probiotic.
W. van der Veken, V. Hautekiet
- 2.106 Complementary effects between a Bacillus licheniformis probiotic and a chemical anticoccidial in broilers under a coccidiosis challenge.
W. van der Veken, V. Hautekiet
- 2.107 Beneficial performance effect of tall oil fatty acids is likely based on the effects of resin acids.
J. Vuorenmaa, E. Valkonen, J. Apajalahti, H. Kettunen, K. Vienola
- 2.108 Phytase superdosing increased yolk mineral concentration while decreasing yolk inositol concentration from breeder hens aged 35 or 40 weeks.
C. A. Granghelli, C. L. Walk, L. F. Araujo, S. M. Silva, M. L. Cuadros, Y. G. A. Sartore, M. T. Dias, C. Brearley, M. Smith, C. S. S. Araujo
- 2.109 Phytase dose fed to breeder hens has an influence on yolk inositol concentration, chick quality and hatchability, and early chick growth rate.
C. A. Granghelli, C. L. Walk, L. F. Araujo, F. A. Roque, B. G. S. Leite, P. H. Pelissari, C. Brearley, M. Smith, C. S. S. Araujo
- 2.110 The effect of different selenium sources on growth performance, blood glutathione peroxidase and dietary metabolisable energy when fed to broiler chickens.
S. Woods, S. P. Rose, I. M. Whiting, C. Ionescu, D. Bravo, V. Pirgozliev
- 2.111 The effect of three selenium sources fed at two levels on the tissue selenium and growth performance of broiler chickens reared at constant high temperature.
S. Woods, S. P. Rose, I. M. Whiting, C. Ionescu, D. Bravo, V. Pirgozliev
- 2.112 Growth promoting effects of dietary glycine supplementation in broiler.
H. Zhang, Y. Ma, U. Elahi, Q. Feng, J. Wang, S. Wu, G. Qi
- 2.113 Buttiauxella phytase dosed at 3000 FTU/kg improved performance in broilers fed complex diets and under mild challenge.
Y. Dersjant-Li, R. Hardy, E. Esteve, L. Marchal
- 2.114 Effect of age/adaptation time on phytase efficacy measurement based on retainable P and Ca in young broiler chickens.
Y. Dersjant-Li, L. Marchal, C. Kwakernaak
- 2.115 Evaluation of the effect of different selenium sources in broiler chickens.
D. Kumprechtova, V. Marchander, R. Raspoet, A. Riggi
- 2.116 Hydroxychloride trace minerals have a beneficial effect on growth performance, carcass yield and impact the gut microbiota of broiler chickens.
S. van Kuijk, A. Rodiles, A. I. Garcia-Ruiz, Y. Han
- 2.117 The effects of dietary lignocellulose on litter quality and broilers performance.
L. Makivić, D. Perić, R. Marković, S. Radulović, D. Jakić-Dimić, D. Šefer

Session 3: Gut health

- 3.1 Efficacy of a new carvacrol-based product on Campylobacter jejuni in challenge test in vivo and impact on the whole caecal microbiota.
M. Allaoua, S. Combes, V. Noirot, P. Etienne, J.-F. Gabarrou, O. Bouchez, M. Treilhou, E. Bonnafé
- 3.2 Evaluation of a fermentation-derived abiotic on the performance of broiler chickens challenged with subclinical necrotic enteritis caused by Clostridium perfringens.
R. Adhikari, S. Llamas Moya, C. Rasmussen, B. Lumpkins
- 3.3 Comparison of the anticoccidial combinations of nicarbazin and ionophores.
J. B. Wilson, J. Rivers, H. Kasab-Bachi
- 3.4 In vitro versus in situ measurement of xylan hydrolysis.
N. Morgan, A. Wallace, M. Choct

- 3.5 Effect of a microbial muramidase supplementation combined with feed enzymes on growth performance, apparent ileal digestibility and jejunal viscosity of broiler chickens.
E. Pérez-Calvo, R. Aureli
- 3.6 Effect of a microbial muramidase on growth performance and welfare of broiler chickens.
E. Esteve-Garcia, E. Pérez-Calvo
- 3.7 A novel muramidase enzyme effectively depolymerize peptidoglycans from various dead bacteria isolated from the gastrointestinal tract of poultry.
M. B. Pedersen, M. T. Cohn, K. M. Schnorr, L. K. Skov, S. Buskov, E. P. Calvo, R. Lopez-Ulibarri, M. Klausen
- 3.8 In vitro enzymatic activity analysis of a novel muramidase for animal feed.
J. S. Chimilovski, M. B. Pedersen, M. Sluis, R. N. Maeda, L. K. Skov, R. Lopez-Ulibarri, M. Klausen
- 3.9 A microbial muramidase improves growth performance and feed efficiency of broiler chickens.
W. Schliffka, K. Kozłowski, E. Pérez-Calvo, R. Lopez-Ulibarri, J. Jankowski
- 3.10 Dietary microbial muramidase improves welfare, metabolizable energy and growth of broiler.
V. Pirgozliev, S. Paul Rose, E. Pérez-Calvo
- 3.11 Feeding two single strain probiotic bacteria and wheat bran failed to modify the production traits but altered some gut characteristics in broiler chickens.
N. Such, I. Koltay, L. Pál, L. Wágner, A. Rawash Mohamed, Á. Mezőlaki, A. Márton, A. Molnár, K. Dublicz
- 3.12 Strains matter.
R. Koedijk, D. Sandvang
- 3.13 *Bacillus amyloliquefaciens* CECT 5940 improve broiler performance under heat stress.
J. C. de Paula Dorigam, N. Yacoubi, K. Doranalli
- 3.14 Combination of dietary nucleosides supplementation augments performance and immunological functions in broilers.
G. Marappan, J. Jaywant Rokade, T. S. Shyamkumar, G. Kolluri, M. Velusamy, T. J. Singh
- 3.15 Effect of *Eimeria tenella* challenge and dietary restriction on growth performance, caecal lesion scores and faecal oocyst counts in broilers.
F. Khattak, N. Spark, O. Hanotte
- 3.16 The use of *Bacillus subtilis* to reduce translocation and invasion of *Campylobacter jejuni* in poultry.
L. Williams, N. Sparks, L. Thijs, I. Somers, T. Humphrey
- 3.17 Comparison of a butyrate formulation and an AGP for broiler gut development and performance.
B. Boomsma, O. Pawaskar, M. Sagar, P. Vervenne
- 3.18 Effects of a blend of glycerol esters of fatty acids on the performance and intestinal ecosystem of broiler chicks in a necrotic enteritis challenge model.
V. Tsiouris, I. Georgopoulou, T. Mantzios, K. Kiskinis, A. Lauwaerts, G. Filiouis, G. Papadopoulos, P. Fortomaris
- 3.19 Hydroxy-selenomethionine is used by intestinal Caco-2 cells as a source of selenium and protects against oxidative stress.
J. Campo-Sabariz, D. Moral-Anter, M. T. Brufau, M. Briens, E. Pinloche, R. Ferrer, R. Martín-Venegas
- 3.20 A phytogetic feed additive suppresses inflammatory signals in the gut by controlling the activation of the MAPK pathway and decreasing the level of Enterobacteriaceae in broiler chickens.
G. Antonissen, F. van Immerseel, V. Paraskeuas, E. Griela, E. Goossens, M. Verlinden, R. Ducatelle, F. Haesebrouck, N. Reisinger, S. Croubels, K. C. Mountzouris
- 3.21 Anti - quorum sensing activity of essential oils used as feed additives.
I. Čabarkapa, J. Bošnjak-Neumüller, J. Raj, N. Marković, M. Vasiljević
- 3.22 Comparative performance of polyherbal mixture and synthetic anticoccidian on broiler performance challenged with coccidiosis.
A. Atkinson, S. Olivera, J. F. Le Roux, H. Borin, C. Alleno
- 3.23 Algal polysaccharides to improve gut health.
M. Garcia, M. Rodriguez, M. Berri, C. Rosseau, P. Nyvall-Collen
- 3.24 Effect of selected yeast fraction on the growth of *Clostridium perfringens*: quantitative determination of growth inhibition and adsorption capacity.
E. Santovito, D. Greco, V. D'Ascanio, G. Avantageggiato, V. Marquis, R. Raspoet, A. Riggi
- 3.25 Performance of broilers fed diets supplemented with an experimental direct-fed microbial in the presence of a moderate necrotic enteritis challenge.
T. Gaydos, T. Kiros, A. Riggi, R. Raspoet, E. Auclair, D. Hooge, M. Sims
- 3.26 Effect of benzoic acid on growth performance of broiler chickens under coccidiosis vaccine challenge.
H. Liu, J. Zhang
- 3.27 Effect of different enzyme combinations on growth performance of broiler chickens.
H. Liu, J. Zhang
- 3.28 Effect of soybean acid oil and palm fatty acid distillate on epithelial barrier function in intestinal Caco-2 cells.
R. Martín-Venegas, J. Campo-Sabariz, D. Moral-Anter, R. Ferrer, B. Jimenez-Moya, R. Sala, F. Guardiola, E. Varona, A. Tres
- 3.29 Impact of Encapsulated butyrate upon intestinal microbiota, pH and digestive function of broilers suffering from dysbacteriosis.

- M. Naghizadeh, T. Sørensen Dalgaard, R. M. Engberg*
- 3.30 HoloFood – a new holo'omic framework to improve animal husbandry performance.
D. Sandvang, M. Abel-Kistrup, J. Tarradas, A. Estonba, J. Zentek, D. Jozefiak, M. T. Limborg, E. Johansen, S. Marcos, A. Alberdi, T. P. Gilbert
- 3.31 Effect of released-targeted blend of organic acids and essential oils on broilers challenged with a necrotic enteritis reused litter.
N. Abdelli, E. Vilarrasa, J. F. Pérez, D. Solà-Oriol
- 3.32 Ulvan activates chicken heterophils and monocytes through Toll-Like Receptor 2 and Toll-Like Receptor 4.
N. Guriec, F. Bussy, C. Gouin, O. Mathiaud, B. Quero, M. Le Goff, P. Nyvall-Collen
- 3.33 Combining short-chain organic acids and phytochemicals to improve performance parameters in broilers with necrotic enteritis.
J. Estévez, B. Vilà, J. Tarradas, S. Carné
- 3.34 Effect of dietary zinc sources and necrotic enteritis challenge on the expression of tight junction and zinc trafficking genes in broiler chickens.
C. Bortoluzzi, B. Lumpkins, G. Mathis, W. D. King, D. Graudnard, K. Dawson, T. Applegate
- 3.35 Post gizzard active compounds evaluated in the absence of antibiotics both with and without water acidification.
M. Bekker, E. Magtaghob, A. Sultan, K. De
- 3.36 Different strains of *Clostridium perfringens* cause different effects on expression of genes encoding intestinal nutrient transporters in broilers under necrotic enteritis infection.
K. Gharib-Naseri, S. Kheravii, M. Choct, R. Swick, N. Morgan, S. Wu
- 3.37 Effect of *Saccharomyces cerevisiae* yeast products in reducing direct colonization and horizontal transmission of *Salmonella Heidelberg* in broilers.
T. Kiros, T. J. Gaydos, J. Corley, R. Raspoet, A. Riggi, C. Hofacre, R. Berghaus
- 3.38 Inclusion of 3-strains of *Bacillus amyloliquefaciens* in-feed reduces non-beneficial *E.coli* in the intestine and increases performance in commercial broilers flocks.
J. Villatoro-Hernandez, S. Gilani, A. M. Debicki-Garnier
- 3.39 Improving the intestinal health of broiler chickens under the influence of willow bark extract powder.
T. Gavris, T. Panait, A. Untea, C. Tabuc, M. Saraclia, C. Soica
- 3.40 Effect of dissolved oligosaccharide organic acid as drinking water supplement on prevalence and antibiotic resistance of *Salmonella* sp. and gut microbiota in Broiler.
Y. Theapparath, N. Roekngam, K. Soisuwan, D. Faroongsarn
- 3.41 Influence of a detoxifying agent on the toxic effects of T-2 toxin in broiler chickens.
M. Hinrichs, E. Haas, A. Schlagheck
- 3.42 Impact of direct fed microbial on gut health, and intestinal worm populations from free-range hens in the late cycle.
R. D. Malheiros, K. Cupo, R. B. Beckstead, K. E. Anderson
- 3.43 Influence of a detoxifying agent on the toxic effects of T-2 toxin in broiler chickens.
M. Hinrichs, E. Haas, A. Schlagheck
- 3.44 A specific composition of 1-Monoglycerides of Short- and Medium Chain Fatty Acids prevented *Campylobacter jejuni* colonization in experimentally challenged broiler chickens.
M. Parini, A. Paoli, G. Tosi, P. Massi, L. Fiorentini
- 3.45 The effect of Deoxynivalenol on the relative organ weight, morphology and histology of the small intestine of broiler chickens.
I. Riahi, A. M. Pérez-Vendrell, V. Marquis, A. Javier Ramos, M. Nofrarias, J. Brufau
- 3.46 Effect of modified insect oil on growth performance, carcass traits, gut morphology, histological features and fecal microbiota in broiler chicken diets.
S. Dabbou, A. Lauwaerts, I. Biasato, I. Ferrocino, E. Colombino, C. Garcés Narro, M. Gariglio, L. Gasco, M. Capucchio, L. S. Cocolin, A. Schiavone
- 3.47 Effects of whole white sorghum supplemented with phytase on growth performance and carcass yield, gut development and health, net protein utilization and apparent ileal digestibility of protein and phosphorus in broilers.
S. N. Qaisrani, M. M. Anwar, G. Mustafa, F. Bibi, S. Naveed, T. N. Pasha
- 3.48 Feeding (*Bacillus amyloliquefaciens* CECT 5940) improves performance of broiler chickens.
A. Ortiz, A. Ion, L. Stef
- 3.49 Exploring the effects of organic acids supplementation on growth performance, carcass characteristics, caecal microbiota and gut morphology in broilers.
S. Naveed, K. Saleem, A. R. Sial, T. N. Pasha, A. Mahmud
- 3.50 Use of a novel feed additive preparation in broiler chicken: effects on performance and gut health.
M. Castillo, S. Budnik, S. Peris, F. Yan

Session 4: Sustainable poultry production

- 4.1 A meta-analysis of whole grain feeding and the possible mechanisms driving responses other than heavier gizzard weights.
A. Moss, H. Truong, S. Liu, P. Selle
- 4.2 Effects of dietary crude protein level on litter and manure composition and ammonia emission in broiler breeders.
R. van Emous, A. Aarnink, C. de la Cruz, V. Naranjo
- 4.3 Broiler performance, gut health and litter quality as affected by crude protein level and protease supplementation.
M. van den Brink, A. Vandeweghe, W. Merckx, S. Massart, V. Verlhac Trichet
- 4.4 Impact of broiler breeder nutrition, body composition and weight on chick quality.
J. Heijmans, M. Duijster, R. P. Kwakkel, H. van den Brand
- 4.5 Sustainable 100 weeks age layer hen in a cage free systems.
X. Arbe Ugalde
- 4.6 Evaluation of a magnetic nanoparticle attached phosphorus compound as a novel phosphorus source for broilers.
J. Wang, J. Xu, W. Kim
- 4.7 Meta-analysis of prececal digestibility of phosphorus in growing broilers: effects of dietary phosphorus, calcium and phytase supply.
C. Couture, A. Narcy, R. Chiasson, M.-P. Létourneau-Montminy
- 4.8 Meta-analysis of the impact of dietary phosphorus, calcium and microbial phytase on growth performance of broilers.
A. Hedhli, M. Hamdi, A. Narcy, M.-P. Létourneau-Montminy
- 4.9 Effect of an increased supply of protein, lysine and energy on zootechnical performance in meat quail.
M. Bournazel, A. Mathiaud, S. Toussaint, N. Bernard, S. Klein
- 4.10 Comparative gastrointestinal, tibia and plasma attributes in 48-day-old fast and slow-growing broiler strains subjected to similar management regimen.
M. MohammadiGheisar, V. Shouldice, S. Torrey, T. Widowski, E. Kiarie
- 4.11 Humic substances improve productive performance and eggshell characteristics.
R. A. Sanmiguel, D. Andrey Sierra, J. D. López
- 4.12 Intrinsic antibiotic resistance in the genomic era – what to conclude?
A. von Wright, P. Halimaa
- 4.13 Relationship between feed efficiency and functionality of the digestive tract in broilers: a transcriptomic analysis.
A. Juanchich, C. Hennequet-Antier, C. Cabau, E. Le Bihan-Duval, M. Duclos, S. Mignon-Grasteau, A. Narcy
- 4.14 Evaluation of a specific vectorization of curcumin to reduce inflammatory indicators and improve broiler's growth performances.
V. Noiro, M. Allaoua, A. Ezanic, J.-F. Gabarrou
- 4.15 Evaluation of a specific blend of spice oleoresins and essential oils to replace an antibiotic growth promoter program on broilers performance.
V. Noiro, M. Allaoua, G. Derausseau, M. D. Sims, D. M. Hooge, J.-F. Gabarrou
- 4.16 Effects of functional sensory molecules on the stress level and broiler's growth performance under two different stocking density.
V. Noiro, M. Allaoua, D. Martinez, A. Auvray, J.-F. Gabarrou
- 4.17 Evaluation of the effect of dietary crude protein content and feed form on ammonia emissions of broilers.
M. Brink, E. Delezie, P. Demeyer, O. Bagci, J. Buyse
- 4.18 Combination of enzymes and fermentable oligosaccharides improve sustainability of broiler production.
G. Gomes, R. Ten Doeschate, O. Kinsey, C. Young, C. Kwakernaak
- 4.19 Marathon versus 100 metres – what are the hallmarks of persistency in late lay?
C. O'Shea
- 4.20 Appraisal of heavy metals contamination in controlled environment broiler facilities.
R. Yasmeen
- 4.21 Usage of a mixed enzyme (xylanase, amylase, and protease) in phytase-supplemented diets increased energy digestibility, growth performance and feed efficiency of broilers.
A. Bello, D. Tang, Y. Dersjant-Li, W. Li, L. Marchal
- 4.22 Phytogetic feed additive on top of 1,000 FTU/kg phytase increased crude protein digestibility and showed potential to improve feed efficiency of broilers through 42 days of age.
A. Bello, S. Bai, Y. Dersjant-Li, W. Li, L. Marchal
- 4.23 Effects of inclusion of *Bacillus subtilis* (DSM17299) to energy- and protein-reduced diet on growth performance, nutrient digestibility, and meat quality and gas emission in broiler chickens.
S. D. Upadhaya, R. Koedijk, I. H. Kim

Session 5: Other species

- 5.1 Effects of fermented cassava leaf meal and palm kernel cake mixture on egg characteristics and egg-yolk fat content of ducks.
Y. Rizal, A. Yuniza, T. D. Nova, S. Y. Sari, A. Amalluffiah
- 5.2 Growth performance of Muscovy and Pekin ducks fed a blend of insect and shellfish based-diet.
J.-M. Larivière
- 5.3 Effect of dietary sodium and chloride on growth performance, hematology and serum biochemistry of geese.
Y. Chen, Z. Wang
- 5.4 Effect of dietary copper on growth performance, slaughter performance and nutrient content of fecal in growing Goslings from 28 to 70 days of age.
Z. Yang, Y.-J. Che, Z.-Y. Wang, H. Yang
- 5.5 The impact of expansion process on nutritional quality of rapeseed cake for turkey nutrition.
F. G. Boroojeni, K. Kozłowski, A. Dražbo, D. Boros, M. Senz, J. Zentek
- 5.6 Effects of a fat coated betaine on breast meat yield, liver weight and oxidative stress in turkeys.
S. Toussaint, S. Klein, M. Bournazel, C. Messant
- 5.7 Dietary use of lysolecithin is a profitable tool in growing turkeys.
J. Aka, M. di Benedetto, A. Wealleans, H. Glawatz
- 5.8 Optimal arginine supply for performance in the starter period of turkeys.
D. Siebert, D. R. Khan, A. Tischler, J. Tossenberger
- 5.9 Effect of a *Bacillus licheniformis* probiotic in turkeys.
W. van der Veken, V. Hautekiet
- 5.10 The effect of feeding Diamond V fermentation metabolites on performance and processing yield of male turkeys reared under commercial conditions in Europe.
W. Abdelrahman, D. Smith, H. Pavlidis, D. McIntyre

Session 6: Other

- 6.1 The combined use of spray dried porcine plasma and low Ca strategies in the starter phase could lead to better broiler performance.
R. Franco-Rosselló, A. I. García-Ruiz, A. Pérez-Bonilla
- 6.2 Comparison the ability of different types of birds in deriving energy from corn and soybean meal.
N. Zahroojian, H. Moravej, M. Zaghari, S. Aminzadeh
- 6.3 Effect of an association of plant extracts on white-stripping and wooden breast appearance in chicken breast.
K. Bebin, D. Gardan-Salmon, M. Panheleux-Lebastard
- 6.4 Endogenous antinutritive substances in cereals intended for use in poultry feeds.
M. Gzowska, D. Boros, A. Fraś, P. Dopierała, T. Schwarz
- 6.5 Effect of diet protein level on carcass value and meat quality in fast-, medium-and slow-growing chickens.
D. Chodová, E. Tůmová, V. Machander
- 6.6 Analysis of eggshell mineral composition for tracing the origin of table eggs.
T. H. Dao, R. A. Swick, V. T. Nguyen, P. W. Hunt, B. Hine, I. Ruhnke
- 6.7 Breast meat quality of chickens reared on pasture affected by fat source.
M. Englmaierová, M. Skřivan, J. Vlčková
- 6.8 High level of Fumonisin B1 detected in corn samples received from Serbia during August to November 208.
J. Raj, H. Farkaš, R. Čepela, I. Pol, J. Bošnjak-Neumüller, M. Vasiljević
- 6.9 Effect of dietary soybean lecithin on broiler chickens performance, ileal fatty acid digestibility and adipose saturation degree.
A. Viñado, L. Castillejos, A. C. Barroeta
- 6.10 The effect of soybean oil replacement by *Hermetia illucens* oil on broilers growth performance and nutrients digestibility.
B. Kierończyk, M. Rawski, Z. Mikołajczak, M. Noak, A. Barc, D. Józefiak
- 6.11 Effect of short-term fasting on the circulating spexin level and expression in broiler peripheral tissues.
P. A. Kolodziejcki, E. Pruszyńska-Oszmałek, M. Sassek, M. Kubiś, M. Hajdysz, K. W. Nowak, D. Fiksa, J. Bien, B. Szczepaniak, P. Mackowiak, S. Kaczmarek
- 6.12 Analysis of more than 380 mycotoxins in feed and raw material samples in 2018.
A. Marchioro, U. Hofstetter, I. Taschl, A. Mueller, M. Sulyok
- 6.13 Multi-level assessment of metabolizable energy of feedstuffs: influence of cereal grain type and length of adaptation to experimental diets.
O. Olukosi
- 6.14 Impact of different prestarter feeding strategies on zootechnical performance and meat quality of ROSS 308 broilers.
M. Panheleux-Lebastard, K. Bebin, N. Hubert, M. Mireaux

- 6.15 Efficacy of disinfectants and plant extracts for the control of poultry red mite (*Dermanyssus gallinae*).
K. Park, S. Kim, H. Kang, H. Kim, J. Jeon, J. Son, E. Hong, C. Kim
- 6.16 Effect of limestone particle size and phytase source on phosphorus digestibility in broilers.
S. Taylor, M. Sinclair-Black, C. Jansen van Rensburg, A. M. Debicki-Garnier, P. W. Plumstead
- 6.17 Effect of different light intensities on growth performance, serum biochemistry and behavior of broiler chickens.
C. Ik Lim, M. Rana, K. Seon Ryu
- 6.18 Effect of phytase supplementation on production performance, egg quality and serum biochemical activities of Hy-Line brown laying hens fed different level of phosphorus.
M. Rana, C. Ik Lim, K. Seon Ryu
- 6.19 Effects of drying at low temperatures on inositol phosphates concentrations in excreta of caecectomised laying hens and broilers.
W. Siegert, P. Hofmann, M. Rodehutscord
- 6.20 The effect of hatching eggs storage on broilers performance.
M. Skoupa, M. Foltyn, M. Lichovnikova
- 6.21 Influence of freezing method on determined phytate concentration in gizzard and ileum samples of broiler chickens.
S. Künzel, V. Sommerfeld, M. Schollenberger, I. Kühn, M. Rodehutscord
- 6.22 Urease activity (Delta Method) versus urease activity (European Method) determined on 45 commercial soybean meal samples and correlation with trypsin inhibitor content.
N. Ruiz, F. de Belalcázar, J. Castillo
- 6.23 Evaluation of the ratio digestible Lys/ME on performance of broilers chickens.
H. D. Gil Arenas, J. D. Fernandez Correa, C. A. Giraldo Vargas
- 6.24 Economic modelling of broiler performance under different diet densities, feeding programs, and challenge conditions using a factorial design.
L.-M. Gomez-Osorio, N. Tillman, O. Restrepo, C. Mesa, O.-D. Munera, R. Angel
- 6.25 Effect of dietary saturation and acidity level on fatty acid absorption along the gastrointestinal tract in young broiler chickens.
B. Jimenez-Moya, A. C. Barroeta, D. Solà-Oriol, F. Guardiola, Roser Sala
- 6.26 The effects of feed ingredients on the exocrine pancreatic function, nutrient digestibility and blood biochemical indices in Hisex white chicken.
A. Grozina, V. Vertiprakhov, V. Fisinin
- 6.27 Hermetia illucens oil as a potential ingredient in poultry nutrition.
B. Kierończyk, M. Rawski, Z. Mikołajczak, M. Noak, A. Barc, D. Józefiak
- 6.28 Effects of early feeding on growth, organ development, and blood biochemical profile in broiler chickens.
H. K. Kang, S. B. Park, C. H. Kim, J. J. Jeon, H. S. Kim, H. C. Hong, K. T. Park, J. S. Son, S. H. Kim
- 6.29 Effects of supplementation of oil-enriched diets with antioxidants on the broiler productive performance and fatty acid composition of breast muscle.
M. Đ. Stojčić, L. Perić, D. Žikić, J. Leskovec, A. Levart, J. Salobir, V. Rezar
- 6.30 The effect of genotype and crude protein on chicken meat nutritional value.
E. Tůmová, D. Chodová, V. Machander, M. Ketta
- 6.31 Dietary arabinoxylan digestibility in broilers.
N. Morgan, S. Wu, M. Choct
- 6.32 Dose response to digestible methionine in the feed for two brown and two white strains of laying hens.
B. Renouf, N. Bernard
- 6.33 The effect of rye, wheat, narrow-leaved lupin grinding degree on broiler chickens performance.
M. Hejdysz, S. A. Kaczmarek, M. Kubiś, K. Perz, A. Rutkowski
- 6.34 Insect oil as an alternative of palm oil in broiler chicken nutrition.
A. Benzertiha, B. Kierończyk, M. Rawski, Z. Mikołajczak, M. Noak, A. Józefiak, D. Józefiak
- 6.35 Feeding status of free-range scavenging chickens in different agro-climatic region of India.
B. Prakash, S. K. Verma, S. V. Rama Rao, M. V. L. N. Raju, S. S. Paul, A. Kannan