

Inaugural ASAS–CAAV Asia Pacific Rim Conference

November 8–10, 2009

Supplemental Program

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2009 ASAS–CAAV Asia Pacific Rim Conference Supplemental Program

The following posters will be presented in the poster sessions on Monday and Tuesday. These abstracts are not included in the official meeting program book or abstract book and have not been edited.

Monday, November 9 POSTER PRESENTATIONS

Nonruminant Nutrition

S1 Effect of phytase on growth performance, tibia characteristics, and serum metabolites in meat-strain ducks.

C. Lin*, W. Gaiqin, W. Tian; *College of Animal Science and Technology, Nanjing Agricultural University, Nanjing, Jiangsu, China.*

S2 Effect of phytase on growth performance and utilization of Ca and P in broilers.

G. Z. Qi*, H. M. Du, J. J. Wang, T. Wang; *Nanjing Agricultural University, Nanjing, Jiangsu, China.*

S3 Effects of phospholipids and NSP enzyme added in low-energy low-protein diets on lipids metabolism of AA broilers.

J. Wang*, T. Wang; *College of Animal Science & Technology, Nanjing Agricultural University, Nanjing, Jiangsu Province, China.*

S4 Effects of phospholipids and NSP enzyme added in low-energy low-protein diets on the performance, feed cost of broilers.

J. Wang*, H. Du, T. Wang; *College of Animal Science & Technology, Nanjing Agricultural University, Nanjing, China.*

S5 Effects of bioplex iron on sow productivity, their progeny piglet performance and serum mineral contents.

W. Xu*, Q. G. Dong, T. Wang; *Nanjing Agricultural University, Nanjing, Jiangsu, China.*

S6 Effect of microbial phytase on growth performance and nutrient absorption and excretion by weaning pigs fed corn-soybean meal diets.

Z. Zeng*, X. Piao, P. Li, L. Xue, T. Lu, Q. Zhang, D. Wang; *College of Animal Science and Technology, Beijing, China.*

S7 Vitamin A supplements promote pregnancy success of mice challenged with pseudorabies virus via regulating toll-like-receptors expression and systemic cytokines and immunoglobulins profiles.

Z. Fang, Y. Lin, D. Wu*; *Key Laboratory for Animal Disease Resistance Nutrition of the Ministry of Education of China, Animal Nutrition Institute, Sichuan Agricultural University, Ya'an 625014, China, Yaan, Sichuan, China.*

S8 Dietary energy source at three energy feeding levels during the rearing period affects follicular development and oocyte maturation in gilts.

Z. Fang, Y. Lin, D. Wu*; *Key Laboratory for Animal Disease Resistance Nutrition of the Ministry of Education of China, Animal Nutrition Institute, Sichuan Agricultural University, Ya'an 625014, China, Yaan, Sichuan, China.*

S9 Fat-rich diet for gilts fed high level energy during the rearing period improves estrous expression and follicle development through regulating plasma metabolite and hormone profiles.

Z. Fang, Y. Lin, D. Wu*; *Key Laboratory for Animal Disease Resistance Nutrition of the Ministry of Education of China, Animal Nutrition Institute, Sichuan Agricultural University, Ya'an 625014, China, Yaan, Sichuan, China.*

S10 Lard and soybean oil together improving the growth performance, carcasses traits and nutrients utilization of Chinese Yellow broilers.

Y. Wang*, L. Zhang, H. Ahmad, T. Wang; *Nanjing Agricultural University, Nanjing, Jiangsu Province, China.*

- S11 The effect of restricted feeding on the serum biochemical indices in fat line and lean line broiler breeders.**
F. LI, J. Hu, A. Shan*, L. Xu, Y-Y. Zhang; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S12 The maternal effect of restricted protein in lactation on intramuscular fat and H-FABP expression of offspring in swine.**
H. Zhang, A. Shan*; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S13 Maternal effects of nutrition on progeny meat quality in swine.**
A. Shan*, Y. Zheng, S. Zhang, J. Peng, J. Liu; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S14 Maternal effects of nutrition on progeny meat quality in broiler.**
A. Shan*, F. Li, L. Xu, J. Yan; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S15 Recent research progress on in-feed Chinese herbs.**
A. Shan*, J. Li, L. Xu, Y. Li, J. Wang; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S16 Effects of maternal energy concentration during gestation on meat quality and growth performance of progeny in swine.**
J. Peng, A. Shan*, L. Xu, Y. Zheng; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S17 Study on production of ω -3 fatty acid enriched pork.**
B. Shi*, J. Lang, A. Shan, P. Wei; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S18 Effects of *Ligustrum Lucidum* on antioxidant status and serum immunoglobulin of weaned piglets.**
J. Li, A. Shan*, J. Xu; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S19 Effect of maternal low-protein in diets on meat quality of offspring in swine.**
S. Zhang, A. Shan*, Y. Zheng; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S20 Effects of maternal dietary supplementation of *Ligustrum lucidum* extract on offspring in broiler.**
A. Wang, J. Hu, A. Shan*, J. Liu; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S21 Effects of dietary protein levels on growth and meat quality of Min piglets.**
Y. Zheng, A. Shan*, S. Zhang; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*
- S22 Maternal effects of low-protein diet on performance and muscle fiber development of offspring in swine.**
Y. Qu, L. Xu, A. Shan*; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

Poultry Metabolism and Nutrition

S23 Effect of antimicrobial lipopeptides on antioxidation performance and serum biochemical of broilers.

D. H. Du*¹, Z. H. Zhang¹, L. Z. Lu², W. T. Wang¹; ¹Nanjing Agriculture University, College Of Animal Science and Technology, Nanjing, Jiangsu, China, ²Nanjing Agriculture University, College Of Food Science and Technology, Nanjing, Jiangsu, China.

S24 Effect of phytase on performance of laying hens in low nonphytate phosphorus and calcium or low protein and metabolic energy diets.

Q. Li*¹, L. Shi¹, K. Zhang¹, X. Ding¹, S. Bai¹, K. Liu², P.-A. Geraert³; ¹Institute of Animal Nutrition, Feed Engineering Research Centre of Sichuan Province, Sichuan Agricultural University, Yaan, Sichuan, P.R. China, ²Adisseo Asia Pacific Pte Ltd, Singapore, ³Adisseo France SAS, Antony, France.

S25 Dose response effects of multiple-enzyme complex on laying performance and bone mineralization in laying hen.

L. Shi*¹, Q. Lei¹, K. Zhang¹, X. Ding¹, S. Bai¹, K. Liu², P.-A. Geraert³; ¹Institute of Animal Nutrition, Feed Engineering Research Centre of Sichuan Province, Sichuan Agricultural University, Yaan, Sichuan, P.R. China, ²Adisseo Asia Pacific Pte Ltd, Singapore, ³Adisseo France SAS, Antony, France.

S26 Effects of dihydropyridine and nano-dihydropyridine on enzyme activity related lipid metabolism in laying hens.

X. Dong, X. Fang, X. Zuo*, J. Lu; *Feed Science Institute, Zhejiang University, Hangzhou, Zhejiang, China.*

S27 Effects of different sources' iron on laying performance and egg quality in laying hens.

Z. Wen, S. Tang, X. Zou*; *Feed Science Institute, Zhejiang University, Hangzhou, Zhejiang, China.*

S28 Effects of extract of *Schisandra Chinensis* on growth performance, antioxidant status and meat quality of the lean line broilers.

L. Xu, A. Shan*, F. Li, Z. Chen; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S29 Effect of feed restriction of broiler breeder on the deposition of intramuscular fat and lipid metabolism of their offspring.

J. Hu, F. Li, A. Shan*, Y. Zhang; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S30 Influence of maternal protein levels on meat quality of offspring in broiler.

J. Yan, B. Shi, A. Wang, A. Shan*; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S31 Effects of *Ligustrum lucidum* on growth and immunity of laying chicks.

L. Shi, R. Zhang, A. Shan*, W. Zhang; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S32 Effect of *Ligustrum lucidum* on immune of laying hens.

W. Zhang, R. Zhang, A. Shan*, L. Shi; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S33 Effect of *Ligustrum lucidum* on egg production and egg quality of laying hens.

R. Zhang, A. Shan*, L. Xu, Q. Deng; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

Ruminant Nutrition

S34 Effect of vitamin E levels in diet on the dietary nutrient digestibility and slaughter performance in Boer goat.

H. Luo *, H. Meng , H. Zhu , G. Zhang , L. Yan , D. Yue ; *State Key Laboratory of Animal Nutrition, College of Animal Science and Technology, China Agricultural University, Beijing, P. R. China.*

S35 Effect of various carbon sources on fermentation profiles of natural co-cultures of anaerobic fungi and methanogens.

J.-H. Liu, W. Jin, W.-Y. Zhu*; *Laboratory of Gastrointestinal Microbiology, Nanjing Agricultural University, Nanjing, Jiangsu, China.*

S36 Determination of the optimal parameters for in vitro fermentation of distillers grains degraded by *Phanerochaete chrysosporium*.

Q. L. Yu*, Z. S. Wang, B. Xue; *Animal Nutrition Institute, Sichuan Agricultural University, Ya'an , China.*

S37 Effect of urea on in vitro fermentation of distillers grains degraded by *Phanerochaete chrysosporium*.

D. Wu*, Z. S. Wang, B. Xue; *Animal Nutrition Institute, Sichuan Agricultural University, Ya'an, China.*

S38 Effects of duodenal infusions of sodium caseinate on mammary metabolism of amino acids in Holstein cows.

Q. Ma, A. Shan*, G. Qiao, Z. Sun; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S39 The influence of different buffer additive levels on ruminal fermentation traits in lactating dairy cows.

M. Sun*, A. Shan; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

Tuesday, November 10 POSTER PRESENTATIONS

Animal Health

S40 Study on ideal absorbable amino acid pattern in the small intestine of Inner Mongolian white cashmere goats.

Y. Zhen*¹, D. Lu²; ¹Jilin Agricultural University, Changchun, China, ²Institute of Animal Nutrition, Inner Mongolian Academy of Animal Science, Huhhot, China.

S41 Effects of melamine on the growth performance and tissues lesion of broilers.

T. Li*, X. Ding, K. Zhang, S. Bai; *Institute of Animal Nutrition, Key Laboratory for Animal Disease-Resistance Nutrition of China Ministry of Education, Sichuan Agricultural University, Yaan, Sichuan, P. R. China.*

S42 Effect of keratinase on growth performance for weanling piglets in corn-soybean diets of different protein levels.

D. Wang*, X. Piao, Z. Zeng, T. Lu, Q. Zhang, P. Li, L. Xue; *China Agricultural University, Beijing, China.*

S43 Effects of lard or starch as energy source on lipid metabolism and laying performance of layers.

Y. Wang*, J. Zhang, B. Yu; *Institute of Animal Nutrition, Sichuan Agricultural University, Key Laboratory for Animal Disease-Resistance Nutrition of China Ministry of Education, Ya'an, Sichuan, China.*

Breeding and Genetics

S44 Comparative animal breeding: A new idea and practice.

C. Wu*; *China Agricultural University, Beijing, China.*

S45 Effects of different concentration of glucosamine on the development of buffalo embryos.

N. Li*, F.-H. Lu, D.-S. Shi, J. Wang, C. Luo, J.-R. Jiang; *Animal Reproduction Institute, Guangxi University, Nanning, China.*

S46 Correlation analysis between three novel SNPs of the Src gene in bovine and milk production traits.

W. Liu, J. Wang, Q. Li, Z. Ju, J. Huang, H. Wang, J. Li, J. Zhong, C. Wang*; *Institute of Dairy cattle Science, Shandong Academy of Agricultural Science, Jinan, Shandong Province, P. R. China.*

S47 Three novel single-nucleotide polymorphisms of MBL1 gene in Chinese native cattle and its associations with milk performance traits.

M. Liu, C. Wang*, Q. Li, Z. Ju, H. Wang, J. Li, J. Huang, J. Zhong; *Institute of Dairy cattle science, Shandong Academy of Agricultural Science, Jinan, Shandong Province, P.R. China.*

S48 TSA improved in vitro development of porcine nuclear transfer embryos produced by a new activation method.

W. Wang, Z. Cao, W. Lu, Y. Zhang*; *College of Animal Science and Technology, Anhui Agricultural University, Hefei, China.*

S49 A high-quality meat goat new line breeding and the characteristics of Tianfu meat goat.

D. H. Wang*^{1,2}, G. Y. Xu¹, S. B. Li¹, Z. H. Liu¹, B. Y. Zhao¹; ¹College of Animal Science and Technology, Sichuan Agricultural University, Sichuan Province, China, ²Mianyang Husbandry and Veterinary Bureau, Sichuan Province, China.

S50 Association of polymorphisms of alpha 1-antitrypsin gene with milk production traits in Chinese Holstein.

Q. L. Li, C. F. Wang*, H. M. Wang, J. B. Li, J. M. Huang, Z. H. Hu, J. F. Zhang; *Dairy Cattle Research Centre, Shandong Academy of Agricultural Science, Shandong, P. R. China.*

S51 Association between CHIP gene polymorphism and the thermo tolerance traits in Chinese Holstein cattle.

J. B. Han, Q. L. Li*, C. F. Wang, Q. J. Pan, Z. H. Ju, H. M. Wang, J. B. Li, J. F. Zhong; *Dairy Cattle Research Centre, Shandong Academy of Agricultural Science, Shandong, P. R. China.*

S52 Effects of 5-aza-2'-deoxycytidine and trichostatin A on the development of buffalo (*Bubalus bubalis*) cloned embryo.

J. Wang, F. H. Lu, D. S. Shi*, S. F. Yang, J. R. Jiang, N. Li; *Animal Reproduction Institute, Guangxi University, Guangxi, Nanning, China.*

S53 Study on the parthenogenetic activation of rabbit oocytes.

S. Xiang, S. Zhang, J. J. Yang, J. Y. Shi, H. L. Sun, J. R. Jiang, F. H. Lu*, D. S. Shi; *Guangxi University, Nanning, Guangxi, China.*

S54 The research of HP-PRRS resistance in Tongcheng pigs.

P. Zhou¹, S. Zhai¹, X. Zhou¹, P. Lin¹, X. Hu², Y. Jiang³, B. Wu³, X. Xu¹, B. Liu*¹; ¹Key Lab of Agricultural Animal Genetics, Breeding, and Reproduction of Ministry of Education & Key Lab of Swine Genetics and Breeding of Ministry of Agriculture, Huazhong Agricultural University, Wuhan, P.R. China, ²Pathology Lab of animal, College of Veterinary Medicine, Huazhong Agricultural University, Wuhan, P.R. China, ³State Key Lab of Agricultural Microbiology, Huazhong Agricultural University, Wuhan, P.R. China.

S55 Associations between SNPs and combined genotypes of κ -casein gene with milk production traits in Chinese Holstein cattle.

Z. Ju*^{1,2}, J. Huang¹, H. Wang¹, Q. Li¹, L. An², J. Zhong¹, C. Wang¹; ¹Dairy Cattle Research Center, Shandong Academy of Agricultural Science, Jinan, P.R. China, ²College of Life Science, Shandong Normal University, Jinan, P. R. China.

S56 Studies on factors affecting the in vitro development of porcine embryos.

Z. Wu, S. Yang, F. Lu, D. Shi*, N. Li, S. Zhang, J. Zhang, Y. Qin; *Animal Reproduction Institute, Guangxi University, Nanning, China.*

S57 The preliminary study of rabbit oocytes matured in vitro.

S. Zhang, S. Xiang, J. Y. Shi, J. J. Yang, H. L. Sun, J. R. Jiang, F. H. Lu, D. S. Shi*; *Guangxi University, Guangxi, Nanning, China.*

Companion Animals

S58 Characteristic changes of T and B cell in lymphoid tissues of dogs naturally infected with canine distemper virus.

Y. Pan*¹, X. Liu¹, Z. Wang¹, T. Long², Z. Zhao², M. Yin¹, J. Chen¹, H. Yochikawa³; ¹Department of Basis Veterinary Medicine, Faculty of Animal Science, Henan Institute of Science and Technology, Xinxiang, Henan Province, China, ²Department of Veterinary Pathology, Faculty of Animal Sciences & Technology, Henan University of Science and Technology, Luoyang, Henan Province, China, ³Department of Veterinary Pathology, School of Veterinary Medicine and Animal Sciences, Kitasato University, Towada, Aomori, Japan.

S59 Study of primary demyelinating encephalopathy in dogs naturally infected with acute canine distemper.

Y. Pan*¹, X. Liu¹, Z. Wang¹, Z. Zhao², T. Long², M. Yin¹, J. Chen¹, H. Yochikawa³; ¹Department of Basis Veterinary Medicine, Faculty of Animal Science, Henan Institute of Science and Technology, Xinxiang, Henan Province, China, ²Department of Veterinary Pathology, Faculty of Animal Sciences & Technology, Henan University of Science and Technology, Luoyang, Henan Province, China, ³Department of Veterinary Pathology, School of Veterinary Medicine and Animal Sciences, Kitasato University, Towada, Aomori, Japan.

S60 Pathogenesis of demyelinating encephalopathy on dogs with spontaneous canine distemper.

Y. Pan*¹, X. Liu¹, Z. Wang¹, Z. Zhao², T. Long², M. Yin¹, J. Chen¹, H. Yochikawa³; ¹Department of Basis Veterinary Medicine, Faculty of Animal Science, Henan Institute of Science and Technology, Xinxiang, Henan Province, China, ²Department of Veterinary Pathology, Faculty of Animal Sciences & Technology, Henan University of Science and Technology, Luoyang, Henan Province, China, ³Department of Veterinary Pathology, School of Veterinary Medicine and Animal Sciences, Kitasato University, Towada, Aomori, Japan.

Food Safety

S61 Xenobiotic metabolism and human food safety.

Z. Yuan*; *Huazhong Agricultural University, Wuhan, China.*

S62 A brief introduction of food safety activities under the USDA-MOST protocol on agriculture science and technology.

G. Zhou*; *Nanjing Agricultural University, Nanjing, China.*

S63 The influence of kidasamycin, tylosin and chlortetracycline on *E. coli* resistance strain metabolism and drug resistance accumulation.

L. Cao, A. Zhou*, Z. Wang; *Institute of Animal Nutrition, Sichuan Agricultural University, Sichuan, China.*

S64 Study on the residue and withdrawal of melamine in the egg and tissues of laying hens.

X. Bai*¹, F. Bai², S. Bai¹, K. Zhang¹, X. Ding¹; ¹*Institute of Animal Nutrition, Key Laboratory for Animal Disease-Resistance Nutrition of China Ministry of Education, Sichuan Agricultural University, Yaan, Sichuan, P.R. China,* ²*The test center for feed quality supervision and inspection (Chengdu), The ministry of Agriculture, Chengdu, Sichuan, P. R. China.*

S65 Study of zeolite and palygorskite on reducing lead and cadmium residual in tissues of yellow broilers.

L. Wang*, H. Qiu, T. Wang, Y. Zhou; *College of Animal Science and Technology, Nanjing Agricultural University, Nanjing, Jiangsu Province, P. R. China.*

S66 Effect of lamb at freeze-thaw cycles on texture and water-holding capacity of emulsion-type sausage.

J. Qi, F. Gao, C. Li, X. Xu, G. Zhou*, Z. Sun, M. Sun; *Nanjing, Jiangsu, China.*

S67 Development of monoclonal antibodies and a competitive ELISA detection method for glycinin, an allergen in soybean.

X. Ma*, P. Sun, P. He, P. Han, J. Wang, S. Qiao, D. Li; *State Key Laboratory of Animal Nutrition, College of Animal Science and Technology, China Agricultural University, Beijing, China.*

Forages & Pastures

S68 Effects of feeding extruded soybean, ground canola seed and whole cottonseed on ruminal fermentation, performance and milk fatty acid profile in early lactation dairy cows.

S. L. Li*, P. Chen, P. Ji; *College of Animal Science and Technology, China Agricultural University, Beijing, China.*

S69 Swainsonine-producing fungal endophyte from three locoweeds in Tibet.

Y.-T. Yu, J.-H. Wang*, Y. Wang, Y.-M. Sun, G.-X. Geng, Q.-F. Li; *Northwest A&F University, Shanxi, China.*

S70 Evaluation of phosphorus excretion model in sows.

E. Kebreab*¹, A. Yitbarek¹, J. France², C. M. Nyachoti¹; ¹*University of Manitoba, Winnipeg, MB, Canada,* ²*University of Guelph, Guelph, ON, Canada.*

S71 Effects of phytase on growth performance and digestibility of phosphorus and amino acid in growing-finishing pigs.

D. Qiguo*, X. Wen, W. Tian; *Nanjing Agriculture University, Nanjing, Jiangsu, China.*

S72 Effects of ammoniated *Leucaena leucocephala* and supplements on rumen fermentation characteristics in vitro.

Z. Chen¹, Z. Wang*¹, A. Zhou¹, B. Xue¹, Y. Cai²; ¹*Animal Nutrition Institute, Sichuan Agricultural University, Yaan, Sichuan, China,* ²*National Institute of Livestock and Grassland Science, Tokyo, Japan.*

S73 Comprehensive evaluation of nutritive value of native grass of main pasture types in Guoluo Prefecture of the origin of the Yangtze, Yellow and Lancangjiang River (Sanjiangyuan Region).

L.-Z. Hao^{2,3}, S.-J. Liu*^{1,3}, K.-X. Ku^{1,2}, S.-T. Chai^{1,3}, J.-S. Hong^{1,2}, X.-W. Zhang^{1,3}, Y.-P. Zhao^{1,3}; ¹*The Academy of Animal and Veterinary Sciences of Qinghai University, Xining, Qinghai, China,* ²*Qinghai Plateau Yak Research Center, Xining, Qinghai, China,* ³*Key Laboratory of Plateau Grazing Animal Nutrition and Feed Science, Xining, Qinghai, China.*

S74 Effect of different ratios of sweet potato residue to rapeseed meal on in vitro fermentation characteristics.

X. Zhu*, Z. S. Wang, Y. Lin, B. Xue, A. G. Zhou; *Animal Nutrition Institute of Sichuan Agricultural University, Ya'an, Sichuan, China.*

S75 Withdrawn

Growth and Development

S76 The fermentation characteristics of the combined effects of ammonification straw rye grass and alfalfa in Nanjiang goat.

D. Lifeng*, W. Zhisheng; *Animal Nutrition Institute of Sichuan Agricultural University, Sichuan, China.*

S77 Effect of blending fat on lipid deposition and fat metabolism of Chinese Yellow broilers.

Y. Wang*, L. Ai, L. Zhang, H. Ahmad, T. Wang; *Nanjing Agricultural University, Nanjing, Jiangsu Province, China.*

S78 Effects of dietary blending fat on organ indexes and antioxidation of Chinese Yellow broilers.

Y. Wang*, X. Huang, L. Zhang, H. Ahmad, T. Wang; *Nanjing Agricultural University, Nanjing, Jiangsu Province, China.*

S79 Effect of equol injection in ovo on posthatch growth, meat quality and antioxidation in broilers.

X. Wei¹, Y. Ni¹, L. Lu², R. Zhao*¹; ¹*Key Laboratory of Animal Physiology & Biochemistry, Nanjing Agricultural University, Nanjing, P. R. China,* ²*Animal Science Institute, Zhejiang Academy of Agricultural Sciences, Hangzhou, P. R. China.*

S80 Studies on mutation of the strain highly producing xylanase and its production conditions.

B. Hou, A. Shan*, J. Ma; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

Poultry Immunology

S81 Identification and characterization of a novel antibacterial peptide, avian β -defensin 2 from ducks.

R. Wang^{1,2}, D. Ma*¹, W. Liao^{1,2}, Z. Han², S. Liu²; ¹*Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China,* ²*Division of Avian Infectious Diseases, State Key Laboratory of Veterinary Biotechnology, Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences, Harbin, Heilongjiang, China.*

S82 Two novel duck antibacterial peptides, avian β -defensins 9 and 10, with antimicrobial activity.

D. Ma*¹, W. Liao^{1,2}, R. Wang^{1,2}, Z. Han², S. Liu²; ¹*Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China,* ²*Division of Avian Infectious Diseases, National Key Laboratory of Veterinary Biotechnology, Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences, Harbin, Heilongjiang, China.*

S83 Recombinant expression of cytokines, chicken interferon- γ and chicken interleukin-18, and the effects of chicken interleukin-18 on anti-heat stress ability in broilers.

J. Sun, A. Shan*, X. Feng, W. Jiang, L. Dai; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S84 Expression and protein structure prediction of interferon gamma of AA broiler.

J. Sun, A. Shan*, L. Xu, L. Dai; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S85 Effect of ChIL-18 immunization on expression of HSP70 mRNA in tissues of broilers during heat stress.

W. Jiang, L. Dai, J. Sun, A. Shan*; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

S86 Bovine lactoferrin derivatives and chicken B-Defensin-9 in *Escherichia coli*.

X. Feng, D. Ma, C. Bi, J. Li, A. Shan*; *Institute of Animal Nutrition, Northeast Agricultural University, Harbin, Heilongjiang, China.*

Poultry Processing, Products, and Food Safety

S87 Withdrawn

Small Ruminant

S88 Urea treated *Leucaena leucocephala* leaf meal enhanced nutrient digestibility and growth performance of the Nanjiang goats.

Y. Yang*^{1,2}, Z. Wang^{1,2}, Y. Cai³; ¹Animal Nutrition Institute of Sichuan Agricultural University, Ya' an, Sichuan Province, China, ²Key Laboratory for Animal Disease-Resistance Nutrition of China Ministry of Education, Ya' an, Sichuan Province, China, ³National Institute of Livestock and Grassland Science, Tokyo, Japan.

Swine Species

S89 Disease-resistant nutrition and its recent advances in pigs.

D. Chen*; Sichuan Agricultural University, Sichuan, P. R. China.