

CONTENTS

ENVIRONMENT, WELL-BEING, AND BEHAVIOR

- Effect of day length on cause of mortality, leg health, and ocular health in broilers
K. Schwan-Lardner, B. I. Fancher, S. Gomis, A. Van Kessel, S. Dalal, and H. L. Classen1
- Automated assessment of footpad dermatitis in broiler chickens at the slaughter-line: Evaluation and correspondence with human expert scores
R. F. Vanderhasselt, M. Sprenger, L. Duchateau, and F. A. M. Tuytens12
- Remedies for a high incidence of broken eggs in furnished cages: Effectiveness of increasing nest attractiveness and lowering perch height
F. A. M. Tuytens, E. Struelens, and B. Ampe19
- Temporal changes and risk factors for foot-pad dermatitis in Danish broilers
Niels Chr. Kyvsgaard, Henrik Bang Jensen, Thorkil Ambrosen, and Nils Toft26
- Changes in heat shock protein 70, blood parameters, and fear-related behavior in broiler chickens as affected by pleasant and unpleasant human contact
A. Al-Aqil, I. Zulkifli, M. Hair Bejo, A. Q. Sazili, M. A. Rajion, and M. N. Somchit33
- Multistage carbon dioxide gas stunning of broilers
M. A. Gerritzen, H. G. M. Reimert, V. A. Hindle, M. T. W. Verhoeven, and W. B. Veerkamp41
- Plumage condition, body weight, mortality, and zootechnical performances: The effects of linings and litter provision in furnished cages for laying hens
M. Guinebretière, A. Huneau-Salaün, D. Huonnic, and V. Michel51

Research Note

- Corticosterone stress response of Greater Rhea (*Rhea americana*) during short-term road transport
A. Lèche, N. S. Della Costa, C. Hansen, J. L. Navarro, R. H. Marin, and M. B. Martella60

Review

- Pulmonary arterial hypertension (ascites syndrome) in broilers: A review
R. F. Wideman, D. D. Rhoads, G. F. Erf, and N. B. Anthony64

GENETICS

- Sister chromatid exchange as an index of chromosome instability in chondrodystrophic chickens (*Gallus domesticus*)
E. Wójcik, K. Andraszek, M. Ciszewska, and E. Smalec84

Research Note

- Expressed sequence tag analysis of the emu (*Dromaius novaehollandiae*) pituitary by 454 GS Junior pyrosequencing
Ji Eun Kim, Frederick C. Leung, Jingwei Jiang, Amy H. Y. Kwok, Darin C. Bennett, and Kimberly M. Cheng90

IMMUNOLOGY, HEALTH, AND DISEASE

- Tissue distribution, expression, and antimicrobial activity of *Anas platyrhynchos* avian β -defensin 6
K. S. Peng, L. S. Ruan, J. Tu, K. Z. Qi, and L. H. Jiang97
- Response of older laying hens to an *Escherichia coli* lipopolysaccharide challenge when fed diets with or without supplemental folic acid
P. M. Munyaka, G. Tactacan, M. Jing, Karmin O, J. D. House, Michael St. Paul, Shayan Sharif, and J. C. Rodriguez-Lecompte105

Do commercial avian influenza H5 vaccines induce cross-reactive antibodies against contemporary H5N1 viruses in Egypt? G. Kayali, A. Kandeil, R. El-Shesheny, A. S. Kayed, M. R. Gomaa, M. A. Kutkat, J. Debeauchamp, P. P. Mckenzie, R. G. Webster, R. J. Webby, and M. A. Ali	114
Effects of feeding fermented <i>Ginkgo biloba</i> leaves on small intestinal morphology, absorption, and immunomodulation of early lipopolysaccharide-challenged chicks Xuhui Zhang, Linguo Zhao, Fuliang Cao, Hussain Ahmad, Guibin Wang, and Tian Wang.....	119

Research Notes

In vitro and in vivo efficacy of a hydrated sodium calcium aluminosilicate to bind and reduce aflatoxin residues in tissues of broiler chicks fed aflatoxin B ₁ D. V. Neeff, D. R. Ledoux, G. E. Rottinghaus, A. J. Bermudez, A. Dakovic, R. A. Murarolli, and C. A. F. Oliveira	131
In ovo injection of anti-chicken CD25 monoclonal antibodies depletes CD4 ⁺ CD25 ⁺ T cells in chickens Revathi Shanmugasundaram and Ramesh K. Selvaraj.....	138

METABOLISM AND NUTRITION

Effects of zinc oxide-montmorillonite hybrid on growth performance, intestinal structure, and function of broiler chicken C. H. Hu, Z. C. Qian, J. Song, Z. S. Luan, and A. Y. Zuo	143
Valine needs in starting and growing Cobb (500) broilers F. C. Tavernari, G. R. Lelis, R. A. Vieira, H. S. Rostagno, L. F. T. Albino, and A. R. Oliveira Neto.....	151
Relationship between in vitro assays and standardized ileal amino acid digestibility of animal protein meals in broilers S. J. Rochell, D. L. Kuhlers, and W. A. Dozier III.....	158
Dietary guanidino acetic acid is an efficacious replacement for arginine for young chicks R. N. Dilger, K. Bryant-Angeloni, R. L. Payne, A. Lemme, and C. M. Parsons	171
Effects of <i>Astragalus membranaceus</i> root processed to different particle sizes on growth performance, antioxidant status, and serum metabolites of broiler chickens G. G. Zhang, Z. B. Yang, Y. Wang, and W. R. Yang	178
Ileal digestibility of amino acids in pea protein isolates, wheat-corn distillers dried grains with solubles, and short-season corn fed to broiler chicks N. K. Nandha, T. A. Woyengo, R. L. Payne, and C. M. Nyachoti	184
Assessment of potential enhancing effects of a carbohydrase mixture on phytase efficacy in male broiler chicks fed phosphorus-deficient diets from 1 to 18 days of age A. Karimi, Y. Min, C. Lu, C. Coto, M. R. Bedford, and P. W. Waldroup	192

Research Note

Effect of inositol and phytases on hematological indices and α -1 acid glycoprotein levels in laying hens fed phosphorus-deficient corn-soybean meal-based diets K. Żyła, M. Grabacka, M. Pierzchalska, R. Duliński, and A. Starzyńska-Janiszewska.....	199
---	-----

PHYSIOLOGY, ENDOCRINOLOGY, AND REPRODUCTION

Sperm-egg interaction and fertility of Japanese breeder quails from 10 to 61 weeks T. C. Santos, A. E. Murakami, C. A. L. Oliveira, and N. Giraldeili	205
--	-----

PROCESSING, PRODUCTS, AND FOOD SAFETY

Phage inactivation of foodborne <i>Shigella</i> on ready-to-eat spiced chicken Hui Zhang, Ran Wang, and Hongduo Bao	211
Comparison of cumulative drip sampling with whole carcass rinses for estimation of <i>Campylobacter</i> species and quality indicator organisms associated with processed broiler chickens J. E. Line, B. B. Oakley, and N. J. Stern.....	218
A comparative study of culture methods and PCR assay for <i>Salmonella</i> detection in poultry drinking water M. C. Soria, M. A. Soria, and D. J. Bueno	225

Effects of increasing concentrations of corn distillers dried grains with solubles on chemical composition and nutrient content of egg H. Sun, E. J. Lee, H. Samaraweera, M. Persia, and Dong U. Ahn	233
Dietary supplemented and meat-added antioxidants effect on the lipid oxidative stability of refrigerated and frozen cooked chicken meat F. Avila-Ramos, A. Pro-Martínez, E. Sosa-Montes, J. Manuel Cuca-García, C. Becerril-Pérez, J. L. Figueroa-Velasco, C. A. Ruiz-Feria, A. S. Hernández-Cázares, and C. Narciso-Gaytán.....	243
Effect of competitive exclusion in reducing the occurrence of <i>Escherichia coli</i> producing extended-spectrum β -lactamases in the ceca of broiler chicks L. Nuotio, C. Schneitz, and O. Nilsson.....	250
Age-related changes in the percentage content of edible and nonedible components in turkeys Daria Murawska	255
In vivo broiler experiments to assess anti- <i>Campylobacter jejuni</i> activity of a live <i>Enterococcus faecalis</i> strain J. Robyn, G. Rasschaert, D. Hermans, F. Pasmans, and M. Heyndrickx	265
Research Note	
Influence of penicillin on microbial diversity of the cecal microbiota in broiler chickens Pallavi Singh, Ahmad Karimi, Kshitiz Devendra, Park W. Waldroup, Kwang Keun Cho, and Young Min Kwon	272
PRODUCTION, MODELING, AND EDUCATION	
Growth curves for ostriches (<i>Struthio camelus</i>) in a Brazilian population S. B. Ramos, S. L. Caetano, R. P. Savegnago, B. N. Nunes, A. A. Ramos, and D. P. Munari.....	277
ERRATUM	
Erratum to “Reduced lesions in chickens with <i>Clostridium perfringens</i> -induced necrotic enteritis by <i>Lactobacillus fermentum</i> 1.2029” [Poult. Sci. 91(12):3065–3071] L. Cao, X. J. Yang, Z. J. Li, F. F. Sun, X. H. Wu, and J. H. Yao	283