The 2022 Spring Meeting of Japan Poultry Science Association

March 29, 2022
Online

Room 1

Presentation 7min.
Discussion 3min.

Morning Session (9:00~11:40)

I - 1~I - 11  Best Presentation Award (Genetics, Breeding, Physiology, Reproduction)
I - 12~I - 13  General Presentation (Physiology)

I - 1  Heritability estimates of egg production and quality traits in Hinaidori chickens.
   ○ Nonoka Kawamura¹, Kazuhiro Rikimaru², Shiori Fukuda², Koichi Hagiya¹ and Tatsuhiko Goto¹
   (¹Obihiro Univ., ²Akita Pref. Livest. Exp. Stn.)

I - 2  Multi-Omics analysis of the effect of different housing systems on laying hens
   ○ Nonoko Nozaki¹, Itufumi Sato¹, Tadahiro Matsubara¹, Eiki Asagi¹, Yuki Higashiura¹, Chihiro Kase², Atushi Nagano³, Shozo Tomonaga⁴, Tatsuhiko Goto⁵, Jun-ichi Shiraishi⁶, Kan Sato⁷ and Tsuyoshi Shimmura¹(¹Tokyo Univ. of Agr. & Tech., ²Azabu Univ., ³Ryukoku Univ., ⁴Kyoto Univ., ⁵Obihiro Univ., ⁶Nippon Vet. Life Sci. Univ., ⁷Tohoku Univ.)

I - 3  Intracerebroventricular injection of taurine regulates the thermogenic gene expression of breast muscle in chicks under both control thermoneutral temperature and high ambient temperature
   ○ Mohamed Z. Elhussiny, Haruka Nishimura, Phuong V. Tran, Mitsuhiro Furuse and Vishwajit S. Chowdhury (Kyushu Univ.)

I - 4  Neuropeptide Y-Y4 receptor mRNA expresses in the spleen, but not in the liver, increased in heat-exposed chicks
   ○ Haruka Nishimura, Mohamed Z. Elhussiny, Mitsuhiro Furuse and Vishwajit S. Chowdhury (Kyushu Univ.)

I - 5  Analyses of ovarian and tissue localization of PLA2R receptor and its transport ability of IgY in chicken and quail
   ○ Ryo Sasaki, Kenji Oshima, Misato Kobayashi, Fumihiko Horio, Atsushi Murai (Grad. Sch. of Bioagr. Sci., Nagoya Univ.)

I - 6  Evaluation of neonatal immune response and central melanocortin system of Yamanashi native chicken breeds.
   ○ Kazuki Kimura¹, Yuuna Watanabe², Noriko Kikushima³, Kouichi Matsushima³, Nobuhiro Nakao¹, Yoshiyuki Ohta¹ and Jun-ichi Shiraishi³
10:20～10:30  Break (10min.)

○ I - 8  Effects of oral administration of Lactobacillus johnsonii on the oviductal and intestinal mucosal barrier function of the laying hens.
○ Taro Shinkoda, Yusaku Tsugami, Naoki Isobe, Yukinori Yoshimura, Takahiro Nii
(Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ.)

○ I - 9  Calcium chelation improves the fertilization potential of chicken semen during liquid storage
○ Pangda Sopha Sushadi¹, Atsushi Tajima² and Atsushi Asano²
(¹Grad. Sch. of Life and Environmental Sci., Univ. of Tsukuba, ²Fac. of Life and Environmental Sci., Univ. of Tsukuba)

○ I -10 Relationship between flock age and primordial germ cell concentrations in early chick embryos.
○ Sho Ebara, Atsushi Asano and Atsushi Tajima
(Grad. Sch. of Life and Environmental Sci., Univ. of Tsukuba)

○ I -11 Development of a cryomedium containing dimethyl sulfoxide for cryopreservation of chicken primordial germ cells
○ Natsuko Hamai¹, Yuki Tansyo², Yukino Ooka², Mayo Hirano², Masaoki Tsudzuki¹,²,³, Yoshiaki Nakamura¹,²,³
(¹Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ., ²Sch. of Applied Bio. Sci., Hiroshima Univ., ³JAB, Hiroshima Univ.)

I -12  Study on somatic differentiation in chick primordial germ cells
○ Kennosuke Ichikawa, Yuzuha Motoe, Ryo Ezaki, Mei Matsuzaki, Hiroyuki Horiuchi
(Hiroshima Univ.)

I-13  Evaluation of infection sensitivity using chicken immortalized cells with human-derived genes
○ Masafumi Katayama¹, Tomokazu Fukuda², Tohru Kiyono³, Manabu Onuma¹.
(¹ Biodiversity Division, National Institute for Environmental Studies, ²Grad. Sch. of Sci. and Engineering, Iwate Univ., ³Exploratory Oncology Research and Clinical Trial Center, National Cancer Center.)
12:00～13:00  Online Seminar (60min.)

13:00～13:10  Break (10min.)

13:10～14:00  Board of Trustees (50min.)
14:00～14:10  Break (10min.)

14:10～15:10  General meeting • Award Ceremony (60min.)

15:10～15:30  Break (20min.)

Afternoon Session (15:30～17:00)

I - 14 I - 21 General Presentation
(Genetics, Breeding, Physiology, Reproduction, Processing and Products)

I-14  Sperm surface protein that controls sperm migration into the sperm storage tubules in Japanese quail
○Tomohiro Sasanami¹, Mei Matsuzaki² and Shusei Mizushima³
(¹ Shizuoka Univ., Hiroshima Univ., ³Hokkaido Univ.)

I - 15  Polymyxin B improves the quality of chicken semen during liquid storage
○Ei Ei Win Maung¹, Pangda Sopha Sushadi¹, Atsushi Tajima² and Atsushi Asano²
(¹ Grad. Sch. of Life and Environmental Sci., Univ. of Tsukuba, ²Fac. of Life and Environmental Sci., Univ. of Tsukuba)

I - 16  Leptin stimulates ovarian insulin-like growth factor-1 mRNA expression and promotes primordial follicle development in juvenile chicks
○Sadequllah Ahmadi¹,² and Takeshi Ohkubo¹,²
(¹Utd. Grad. Sch. of Agri. Sci., TUAT, ²Coll. Agri. Ibaraki Univ.)

I - 17  Interaction of glucagon-related peptides or melanocortins in the regulation of food intake in chicks
○Ahmed Kewan, Kazuhisa Honda, Takaoki Saneyasu, and Hiroshi Kamisoyama
(Grad. Sch. Agr. Sci. Kobe Univ.)

I - 18  Effects of aging on microflora and inflammatory reaction in intestine and oviduct of laying hens.
Takumi Sugiura, Naoki Suzuki, Yusaku Tsugami, Naoki Isobe, Yukinori Yoshimura,  ○Takahiro Nii
Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ.

I - 19  Resiquimod stimulates nitric oxide production by inducible nitric oxide synthase in chicks
○Tetsuya Tachibana¹, Maki Takahashi¹, Ryosuke Makino¹ and Sakirul Khan²
(¹Fac. of Agric., Ehime Univ., ²Fac. of Med., Oita Univ.)
Temperament differences among native Japanese chicken breeds

Akira Ishikawa¹,⁴, Momoe Terashima¹, Naoki Goto² and Masaoki Tdzuuki³,⁴
(¹Nagoya Univ., ²Hendrix Genetics, ³Hiroshima Univ., ⁴JAB)

Food Culture of Japanese quail in Japan, Market Research of Quail Egg Product in Flyer, before COVID-19 era.

Akiko Sano (Inst. Anim. Sic.)
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Room2

Presentation 7min.
Discussion 3min.

Morning Session (9:00～11:40)

△II – 1〜△II – 10  Best Presentation Award
(Nutrition and Feeds, Anatomy and Histology, Environment and Hygiene)

△II – 11〜△II – 13  General Presentation (Nutrition and Feeds)

○ II - 1 Evaluation of quantitative analytical method of amino acid and its metabolite concentrations of plasma in chickens
  ○ Hanwool Do, Shozo Tomonaga (Grad. Sch. Agr. Kyoto Univ.)

○ II - 2 Studies on the role of hypothalamic TGF-β/Smad signaling pathway in regulation of food intake in chickens
  ○ Miku Ueda, Kanami Nagata, Kazuhiisa Honda, Hiroshi Kamisoyama, Takaoki Saneyasu (Kobe Univ.)

○ II - 3 Effects of periodic and regional changing of lighting color on the behavior of broilers
  ○ Shingo Kusuda¹, Koji Nakamura², Kazuhiisa Honda¹, Chikamitsu Oshima³, Takaoki Saneyasu², and Hiroshi Kamisoyama² (¹Grad. Sch. Agr. Sci. Kobe Univ., ²Ishiifoods Co., LTD.)

○ II - 4 Primary Chicken Embryo-Derived Kidney cell culture
  ○ Motomi Toyama¹, Kazumi Kita² (¹Grad. Sch., Iwate Univ., ²Iwate Univ.)

○ II - 5 Connexin 43 is localized in gizzard smooth muscle cells during chicken development
  ○ Kosuke Tokunaga¹, Shota Akimoto¹, Machiko Aiba¹, Mutsuki Nakagomi¹, Takahiro Suzuki¹, Ryuichi Tatsumi¹, Mako Nakamura¹(¹Kyushu Univ.)

10:00〜10:10  Break (10min.)

○ II - 6 Effects of ad libitum Feeding of a Bran-based Diet on Rest Reaction and Reproductive Organs in Japanese Quails
  ○ Saori Tamada¹, Naokazu Minoguchi¹, Masami Sato¹(¹Aichi Agric. Res. Ctr.)
II - 7  Effects of brown rice and sake lees on growth performance and meat quality in broiler chickens
○Koki Nishikawa¹, Karin Miyazaki¹, Kazuhisa Honda¹, Takehiro Hirai¹, Shuji Hirohata², Takaoki Saneyasu², and Hiroshi Kamisoyama²

II - 8  Comparison of fermented feed and mixed feed in egg production and quality traits in chickens.
○Rina Oguchi, Miyu Hanaki and Tatsuhiko Goto
(Obihiro Univ.)

II - 9  Anti-inflammatory response of olive-derived polyphenol in LPS-activated chicken splenocytes
○Kanade Otani, Kan Sato (Grad. Sch. Agr. Tohoku Univ.)

II - 10  Activity Monitoring of Chickens by a Doppler Sensor
○Naruya Inagaki¹, Akihiro Nakamura², Shiori Tokita², Hiromitsu Miyakawa², Masami Sato² and Yukihiro Kamiya¹
(¹Aichi Pref. Univ., ²Aichi Agric. Res. Ctr.)

II - 11  Evaluation of cadaverine signals in the regulation of energy metabolism during late-term chicken embryos
○Jun-ichi Shiraiishi, Naoko Shimakura, Kazuki Kimura, Junto Katsuyama, Haruka Otsu, Hirono Uesaka, Ai Saiga-Egusa, Yoshiyuki Ohta

II - 12  Effects of metabolizable energy saving by guanidinoacetic acid supplementation in broiler feed
○Daisuke Matsui¹, Judith Ringel² and Izuru Shinzato¹
(¹Sumitomo Chemical Co., Ltd., ²AlzChem Trostberg GmbH)

II - 13  Heat exposure affects renal fibrosis and mitochondrial dysfunction in laying hen
○Fumika Nanto-HARA, Haruhiko Ohtsu, Makoto Yamazaki and Hitoshi Murakami
(Inst. of Livestock and Grassland Sci., NARO)

11:40～12:00  Break (20min.)

12:00～13:00  Online Seminar (60min.)

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Afternoon Session (15:30~17:00)

II -14~II -21  General Presentation (Nutrition and Feeds・Processing and Products)

II -14 Effect of the Use of Vegetable Oil Meal as a Substitute for Fish Meal on Laying Performance in Japanese Quail
○Naokazu Minoguchi1), Emika Hasegawa1), Kenji Inoue2), Keiya Kamimura2), Hiroki Eida3), Takatada Suzuki3), Masami Sato1)
(1Aichi Agric.Res.Ctr., 2Aichi Prefectural Federation of Economic Agricultural Cooperatives Association., 3 ZEN-NOH., 4 JA Higashi Nihon Kumiai Feed Co., Ltd)

II -15 Effect of the low-protein diet supplemented with synthetic amino acids on performances and nitrogen excretion in broilers during the growing period.
○Haruhiko Ohtsu, Fumika Nanto-HARA, Makoto Yamazaki and Hitoshi Murakami
(Inst. of Livestock and Grassland Sci., NARO)

II -16 Effect of prefectural corn and sesame meal based diets on growth performance and meat quality of Kanagawadori
○Kumiko Hirai, Kentaro Orihara and Kouichiro Kita
(Kanagawa Pref. Livestock Tech. Ctr.)

II -17 Effect of Dunaliella bardawil powder supplementation on performance and egg carotene contents of laying hens
○Keisuke Nishida1, Teruo Hiroyasu2, Sachiko Kawamoto2 and Kanya Tokunaga2
(1Nishida Poultry Farm, 2Nikken Sohonsha Corporation)

II -18 Effects of mixed feeding of feed and water on water intake and osmotic regulation-related factors in broiler chickens
○Kazuhisa Honda1, Tomoya Matsunami1, Yuji Taniguchi2, Sei-ichi Hinomoto2, Satoru Kuroki2, Takaoki Saneyasu1 and Hiroshi Kamisoyama1

II -19 Weizmannia (Bacillus) coagulans SANK70258 supplementation into the diet improves the growth performance under coccidial infection of broilers.
○Takamitsu Tsukahara1, Taishi Imaoka2, Hikari Shimonishi2, Ryouchi Yamada1, Masanori Aida3, Ryunosuke Michibata3, Toshiki Matsuo3, Itaru Taniguchi1
(1Kyoto Inst. Nutr. Pathol., 2KYODOKEN Inst., 3 Mitsubishi Chemical Corp.)

II -20 Effect of Cooking Temperature on the Sensory Characteristic of Choshu-Kurokashiwa and Broiler Breast Meat
○Shohei Murata (Yamaguchi Agri.& For. Gen. Tech. Ctr.)