
口頭発表 | 2. 育種・遺伝

育種・遺伝2

Chairperson: Masaaki TANIGUCHI, Akira Ishikawa(Graduate School of Bioagricultural Sciences, Nagoya University), Shinji Sasazaki, Norihide Yokoi, Tomokazu Fukuda(Iwate University), Youko Aida

Fri. Sep 16, 2022 1:30 PM - 4:40 PM Zoom会場2 (オンライン)

II-16-19~II-16-22 : 谷口 雅章

II-16-23~II-16-25 : 石川 明

II-16-26~II-16-28 : 笹崎 晋史

II-16-29~II-16-31 : 横井 伯英

II-16-32~II-16-34 : 福田 智一

II-16-35~II-16-37 : 間 陽子

3:40 PM - 3:50 PM

[II-16-32]Genetic parameter estimates for size, weight, color, and amino acid of egg in Hinaidori chickens

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In recent years, the demand for designer eggs, which are high value-added eggs, has increased. Free amino acid is one of the components related to food taste. There have been very few reports concerning how genetic factor affects egg components. Therefore, the purpose of this study is to estimate the heritability of egg traits and yolk free amino acid traits. Hinaidori females (n = 441) at the Akita Prefectural Livestock Experiment Station were used for phenotyping of ten egg traits and 11 yolk free amino acids. Pedigree information (n = 6397) was used to estimate heritability. Egg traits (egg weight, egg size, eggshell weight, eggshell thickness, eggshell color, etc.) were measured. Yolk free amino acid contents were determined using HPLC. Heritability in each trait was estimated using the AI-REML methods taking birthday and HPLC batch into account as fixed effects. In this study, the egg traits estimated heritability ranged from 0.40 ± 0.11 to 0.62 ± 0.11 . The yolk amino acids estimated heritability ranged from 0.18 ± 0.12 to 0.66 ± 0.12 . Estimation of the heritabilities of yolk free amino acids may further contribute to higher value-added egg production.