

## Table of Contents

## In Press

## Article Archive

[CJAS \(63\) 2018](#)
[CJAS \(62\) 2017](#)
[CJAS \(61\) 2016](#)
[CJAS \(60\) 2015](#)
[CJAS \(59\) 2014](#)
[CJAS \(58\) 2013](#)
[CJAS \(57\) 2012](#)
[CJAS \(56\) 2011](#)
[CJAS \(55\) 2010](#)
[CJAS \(54\) 2009](#)
[CJAS \(53\) 2008](#)
[Issue No. 1 \(1-44\)](#)
[Issue No. 2 \(45-89\)](#)
[Issue No. 3 \(91-135\)](#)
[Issue No. 4 \(139-179\)](#)
[Issue No. 5 \(181-226\)](#)
[Issue No. 6 \(227-269\)](#)
[Issue No. 7 \(273-311\)](#)
[Issue No. 8 \(315-353\)](#)
[Issue No. 9 \(357-403\)](#)
[Issue No. 10 \(407-452\)](#)
[Issue No. 11 \(453-498\)](#)
[Issue No. 12 \(499-547\)](#)
[CJAS \(52\) 2007](#)
[CJAS \(51\) 2006](#)
[CJAS \(50\) 2005](#)
[CJAS \(49\) 2004](#)

## Editorial Board

## Ethical Standards

## Reviewers 2017

## For Authors

## Author Declaration

## Copyright Statement

## Instruction for Authors

## Submission Templates

## Fees

## New Submissions/Login

## Subscription

## Changes in egg quality traits associated with long-term selection for lower yolk cholesterol content in Japanese quail

J. Baumgartner, Z. Končková, J. Benková, D. Peškovičová, J. Simenová, J. Cuka

<https://doi.org/10.17221/2715-CJAS>

Citation: Baumgartner J., Končková Z., Benková J., Peškovičová D., Simenová J., Cuka J. (2008): Changes in egg quality traits associated with long-term selection for lower yolk cholesterol content in Japanese quail. *Czech J. Anim. Sci.*, 53: 119-127.

[download PDF](#)

In the present paper we describe the basic results of long-term selection for low yolk cholesterol content in Japanese quail and its influence on development and relationship with other egg quality traits during nineteen selected generations. The changes in a selected low cholesterol line were compared with changes in an unselected control line to obtain the real selection response to estimated traits. There was a significant decrease in yolk cholesterol content from 1 815 mg/100 g of fresh yolk (P generation) to 1 522 mg/100 g yolk (S19 generation). According to the value of regression coefficient *b* the decrease per one generation was 15.71 mg/100 g yolk. The decrease in cholesterol of the edible part of egg was also effective and it significantly decreased by 11.29 mg/100 g of the edible part of egg in each generation. There were only insignificant changes in egg weight, but we found a significant increase in yolk weight during selected generations. According to the regression analysis the increase in yolk weight was 0.019 mg/100 g per one generation. There were a positive but insignificant increase also in albumen weight, shell weight and weight of the edible part of egg. We found a small and insignificant decrease in shape index. We determined very high and significant positive correlations between cholesterol content in yolk and cholesterol content in the edible part of egg (0.801+++ ) and significant negative correlations between yolk cholesterol content and egg weight (-0.515+), yolk weight (-0.468+) and weight of the edible part of egg (-0.475). There were only low, positive and insignificant correlations between yolk cholesterol content and yolk egg proportion and egg shape index.

**Keywords:**

selection; yolk cholesterol; egg quality traits; correlations; Japanese quail

[download PDF](#)

## IF (Web of Science)

2017: **0.955**

5-Year Impact Factor: **1.06**  
**Q3** (33/60) – Agriculture, L  
 Animal Science  
**SJR (SCOPUS)**  
 2017: **0.443 – Q2** (Animal &  
 and Zoology)

[f](#) Share

## New Issue Alert

Join the journal on [Facet Abstracted / Indexed in Agrindex of AGRIS/FAO of Animal Breeding Abstracts CAB Abstracts CNKI Current Contents®/Agric Biology and Environment Sciences Czech Agricultural and Fisheries Bibliography DOAJ \(Directory of Open Journals\) Food Science and Technology Abstracts Google Scholar ISI Web of Knowledge® J-Gate Science Citation Index Expanded SCOPUS TOXLINE PLUS Web of Science®](#)

## Licence terms

All content is made freely for non-commercial purposes. Users are allowed to copy, redistribute the material, transform, and build upon material as long as they cite the source.

## Open Access Policy

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

## Contact

Ing. Gabriela Vladyková  
 Executive Editor (Editorial publication)

e-mail: [cjas@gazv.cz](mailto:cjas@gazv.cz)

Ing. Kateřina Kheilová  
 Executive Editor (submission editorial system)

e-mail: [cjas@af.czu.cz](mailto:cjas@af.czu.cz)

## Address

Czech Journal of Animal Science  
 Czech Academy of Agricultural Sciences  
 Slezská 7  
 120 00 Praha 2  
 Czech Republic