



WG1 Poster Presenter Profiles & Abstracts

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■ PROFILE

Beata Grzegorzółka studied Animal Science at the Warsaw University of Life Sciences – SGGW, Poland. She finished her doctorate thesis focused on embryo development in Japanese quail BW selection and received a PhD in Agricultural Sciences in 2010 at the Faculty of Animal Sciences at the WULS – SGGW, Poland. Since 2009 she works as a lecturer and researcher in the Department of Genetics and Animal Breeding, Faculty of Animal Sciences, WULS – SGGW, Poland. She is also responsible for the experimental flock of Japanese quail breeding at the University. The main fields of her research interests are correlated response to selection in quails, avian embryology, population and animal genetics, animal behaviour, biostatistics, and imaging techniques in animal sciences.

an electronic scale, and different linear body measurements using a measuring tape. Finally, all carps were slaughtered in order to measure different carcass traits including the backfat thickness of the split carcass. After slaughtering, before dissection, the whole carps were scanned, using a computed tomography scanner (Siemens Somatom Plus 4 with 140 kV, 146 mA, 30 cm FOV, and 3 mm slice thickness). After dissection and collecting all carcass traits, one fillet including the skin of each carcass was analyzed chemically for reference fat content.

■ ABSTRACT (WG01P05)

CT phenotyping of carcass traits in mirror carps (Cyprinus carpio)

The carp is the most important culinary fish within the EU after the salmonides. In Germany, some regions produce carps protected by the EU as Protected Geographical Indication (PGI). Since 2012, also the Aischground carp is listed as a PGI. The specification for this carp includes – among others – a maximum body weight of 1700g and a max. fat content of 10% within the fillet including the skin. As carps are sold alive, the production of carp, fulfilling the specifications requires a method to predict the meat quality in live fish.

During this study, 60 mirror carps (*Cyprinus carpio*), originating from 6 different ponds of the Bavarian region 'Aischground', were measured in vivo for their body weight using

Single in vivo measurements showed poor prediction of fat content. Linear measurements taken on single CT slices of special regions of the fish in some cases revealed higher relationship with fat content ($R^2 \leq 0.81$) or fillet weight ($R^2 \leq 0.87$). As CT technology is possible without slaughtering, multiple linear regression models based on several in vivo traits and chosen CT measurements would be useful in prediction of fat content and fillet weight in live fish, as these two traits seem to be among the most important for carp consumers.

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