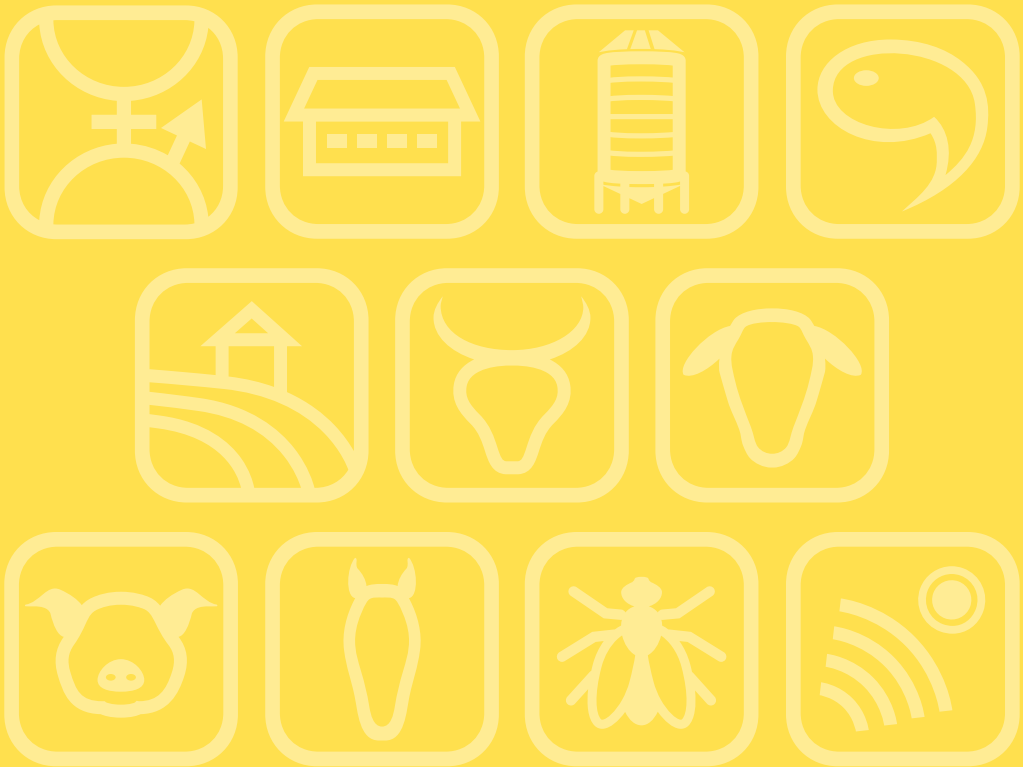


Book of Abstracts of the 68th Annual Meeting of the European Federation of Animal Science



**Book of abstracts
No. 23 (2017)**

68th ANNUAL MEETING OF
THE EUROPEAN FEDERATION
OF ANIMAL SCIENCE

28 August – 1 September 2017, Tallinn, Estonia

**Book of Abstracts of the 68th Annual Meeting of the
European Federation of Animal Science**



EAAP

European Federation of Animal Science

The European Federation of Animal Science wishes to express its appreciation to the Ministero delle Politiche Agricole Alimentari e Forestali (Italy) and the Associazione Italiana Allevatori (Italy) for their valuable support of its activities.

Book of Abstracts of the 68th Annual Meeting of the European Federation of Animal Science

Tallinn, Estonia, 28 August – 1 September 2017



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EAN: 9789086863129
e-EAN: 9789086868599
ISBN: 978-90-8686-312-9
e-ISBN: 978-90-8686-859-9
DOI: 10.3920/978-90-8686-859-9

ISSN 1382-6077

First published, 2017

© **Wageningen Academic Publishers**
The Netherlands, 2017



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P.O. Box 220
6700 AE Wageningen
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Welcome to Tallinn, Estonia

On behalf of the Estonian Organising Committee, it is my pleasure to welcome you to the 68th Annual Meeting of the European Federation of Animal Science at the Solaris Tallinn. It is our first opportunity to host the EAAP Annual Meeting – the Europe's largest animal scientific conference.

The main theme of this years' meeting is Patterns of Livestock Production in the Development of Bioeconomy, which is a hot topic worldwide and a very appropriate subject in view of the current challenges for both human society and livestock industry. Knowledge-based innovation in the livestock sector is needed to integrate animal production into a viable bioeconomy value chain and ensure food security along with improving animal health and reducing environmental impacts. The programme will cover the latest findings and views on developments in animal genetics, health and welfare, nutrition, physiology, livestock farming systems, precision livestock farming, insects and cattle, horse, pig, sheep and goat production, as well as their allied industries.

The participants will have the opportunity to attend a very interesting scientific programme, to meet scientists working with a wide range of animal species and in various disciplines, to make new contacts and discuss the latest developments in animal sciences. The social events will offer the participants a unique occasion to get a glimpse of Estonian culture and the beautiful city of Tallinn.

We hope that all of you will have a very productive meeting and that you will enjoy the social events and our warm and friendly atmosphere.

Toomas Kevvai

Chairman of the Estonian Organising Committee
Deputy Secretary General for Food Safety, Research and Development
Ministry of Rural Affairs of the Republic of Estonia

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Efficiency of selection indices for milk flow, production and conformation traits in Holsteins

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The aim of this study was to estimate the annual genetic response for average milk flow (AMF), milk yield (MY), milk components, somatic cell score (SCS) and udder conformation traits in Estonian Holstein (EH) population under different selection indices. Current selection index (SPAV) includes fat (FY) and protein (PY) yields. Other selection indices are under study in order to improve SCS and conformation traits. Inexpensive electronically recordings of AMF from milking parlours and automatic milking systems are available in Estonia. Dataset from EH cows reared in 69 farms was used to estimate phenotypic and genetic parameters for all traits. The data of AMF (19,316 single records), milk production traits (302,629 repeated records) and udder conformation traits (11,143 single records) was collected by the Estonian Livestock Performance Recording Ltd from July 2010 to January 2016. Four generations pedigree with 66,370 animals was considered in animal models. Annual genetic response (GRy) for the abovementioned traits was estimated by using selection index theory and EH breeding program parameters. AMF had high heritability (0.50) and intermediate genetic correlations with MY (0.52), SCS (0.33) and udder conformation traits (the strongest -0.30 with teat length and 0.33 with rear udder height). Application of SPAV resulted with the increase of 0.14 genetic standard deviations per year (GSDy) for AMF, 0.19 GSDy for MY and 0.07 GSDy for SCS. Direct inclusion of AMF (25% of relative weight) in the index increased/decreased the GRy for yield traits and SCS by 0.01-0.03 GSDy, if there was selection for or against higher AMF, respectively. Direct inclusion (25% of relative weight) of SCS resulted with almost no increase in SCS (0.01 GSDy) and still relatively high increase in MY (0.18 GSDy). The inclusion of AMF has only slight effect on GRy of other traits, however the EBV of AMF can be used to exclude extreme animals from breeding. Estonian Ministry of Education and Research (grant IUT8-1) and Bio-Competence Centre of Healthy Dairy Products LLC (project EU48686).