

Book of Abstracts of the 64th Annual Meeting of the European Federation of Animal Science



**Book of abstracts No. 19 (2013)
Nantes, France
26 - 30 August 2013**

Global layer breeding with special focus on sustainability*R. Preisinger**Lohmann Tierzucht GmbH, Am Seedeich 9-11, 27472 Cuxhaven, Germany; preisinger@ltz.de*

Hybrids of multiple line crosses are used for table egg production worldwide. Commercial hybrids show outstanding fertility and livability as compared to local pure lines and their respective crosses. Commercial layers have to be bred to perform adequately in a variety of systems ranging from small scale free-range management to modern, fully air-conditioned and large intensive cage units – under different environmental conditions worldwide. Aside from better performance, commercial layer hybrids can either be feather-sexed or colour-sexed as day-olds. If commercials are used for breeding purposes, a significant drop in performance and the opportunities for feather or colour sexing would be gone. The gene pool of pure lines for poultry distributed globally are in the hands of private owners and customers can only buy sexed parent stocks. Local breeding programmes in Asia are based on European or North American genetic stocks which were purchased from commercial breeding companies years ago. In Africa, local chicken strains still contribute a significant share in the production of rural chicken where males are used for meat production and females for the production of eggs. As soon as performance data are recorded and balanced diets from local or imported raw materials are available, local strains would be replaced by imported parent stocks. The major difference between local strains and imported ones can be observed for feed efficiency. Breeders are faced with the need to forecast the demands of producers and consumers alike and to select stocks with special attributes at least five years ahead of market realisation. For the global business, diverse markets have to be served and each of these seeks different performance profiles of the commercial layers. This requires extensive gene pools comprising of elite lines which are combined to generate specific commercial products. The cost of maintaining and developing new lines, testing, selecting and reproducing primary stocks, imposes high fixed costs in the operation and very good skills in quantitative genetics.

The decreasing role of native genetic resources in modern Ukrainian pig production*O. Kravchenko¹, A. Getya² and O. Kodak³*

¹*Poltava state agrarian academy, Production and Processing Technologies of Animal Products, str. 1/3 Skovorody, 36003 Poltava, Ukraine,* ²*Ministry of agrarian policy and food of Ukraine, Department of animal production, str. Khreschatyk, 24, 01002 Kiev, Ukraine,* ³*Kaposvar university, Animal science, str. Guba Sándor u. 40., 7400 Kaposvár, Hungary; oksanakravchenko@ukr.net*

Conservation of animal genetic resources is a global issue and the reported rate of breed extinctions is of great concerns. In the livestock sector of Ukraine genetic erosion concerns mostly local, native breeds which are replaced by a narrow range of high-yielding exotic breeds considered to have a competitive advantage in more intensive production systems. There is a big threat that Ukraine loses its national genetic resources being replaced by breeds not well adapted to local climatic, environmental and technological conditions. Currently there are 6 native pig breeds in Ukraine: Mirgorodska (M), the Ukrainian white steppe (UWS), the Ukrainian spotted steppe (USS), Poltava meat (PM), Ukrainian meat (UM) and the Red white belt (RWBB). An analysis of occurrence and geographical distribution of Ukrainian pig breeds revealed for the years 2006-2012 a massive reduction in the number of breeding farms keeping those native breeds, namely: M: by 62.5%; UWS: by 72.7%; PM: by 68.4%; UM: at 43.5%; RWBB: by 41.2%. Most critical is the number of sows: Mirgorodska: 383 heads; Ukrainian white steppe: 334 heads; Poltava meat: 469 heads; and Ukrainian spotted steppe: 26 heads. Therefore the most urgent problem of Ukraine, is the development and implementation of strategies to maintain its autochthonous animal breeds, but a conservation program cannot be established without reliable characterization and monitoring of breeds. Breed certification, establishing definitions for what to be considered as pure bred, detection and timely elimination of crossbred animals, are currently considered to be the most urgent tasks.