

Current trends in pig breeding programs

S u m m a r y

Poland is one of the biggest pork producers in EU. Fighting off extreme competition and keeping considerably high position on the market requires constant improvement of nucleus herd and constant use of breeding effects in production. Polish Pig Breeders and Producers Association „POLSUS” is the only one organization in Poland that is entitled to keeping herd books and executing performance value estimation for the following breeds: Large White, Polish Landrace, Puławska, Pietrain, Duroc, Hampshire and Belgian Landrace. „POLSUS”, in cooperation with National Research Institute of Animal Production, has modified and improved conventional methods of pig performance value estimation. The basis for selection in range of fattening and slaughtering traits is still on farm test (on alive animals) and testing in test station. However for the last couple of years we have been using modern breeding value estimation method – BLUP for fattening and slaughtering traits based on farm test of alive animals. It is expected to estimate breeding value using BLUP method for animals tested in the test stations. BLUP Model for reproduction performance traits has been also prepared. Following the example of other European countries, Poland is preparing to introduce multitrait BLUP model into breeding practice. This multitrait BLUP model should include reproduction, fattening and slaughtering values. Achievements of molecular genetics are being employed in the breeding practice for elimination of disadvantageous mutation of stress gene ($RYR1^T$) as well as for identification of animal origin, using genetic markers. Many changes introduced so far to the methodology of breeding and performance value estimation as well as in breeding practice management enable us to compete with other breeding programs in EU.