

Fertility and Lactation Yield of Large White Sows

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The experiment was carried out in the Tartu STS and Kõpsta PU during the period 1991...1997. The aim of the study was find out possibilities to increase fertility by using crossbreeding and by changing some environmental factors. The first group consisted of 434 litters of 188 purebred Large White (ELW) sows mated with 42 purebred boars of ELW breed. The second group included 28 litters of 28 purebred ELW crossed with 4 boars of Landrace (EL) and the third consisted of 22 litters of 22 crossbred sows mated with 7 purebred ELW boars.

Litters of gilts are significantly smaller (by 10...14%) and of lower liveability rate (by 4.5...6.0%) than the litters of sows farrowed two or more times. However, daily gain is up to 6% higher in piglets of gilts. Heavier piglets and litters are born in spring and winter. Farrowing season has no significant influence on piglet and litter weaning weight. Although winter born piglet survival rate is a little better, there are no differences between farrowing seasons. Lighter piglets are usually born in larger litters ($r_p = -0.313$). Simple crossbreeding of Large White and Estonian Landrace breeds increases fertility only by 0.44...0.67 piglets. Using crossbred sows increases sow fertility by 1.22...1.68 piglets. To realise heterosis arising in crossbreeding, feeding conditions must be improved to get higher daily gain, litter and piglet weight.