

FAILURE TO RECYCLE AFTER WEANING, AND WEANING TO OESTRUS INTERVAL IN CROSSBRED SOWS

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ABSTRACT

Failure to recycle after weaning and the interval from weaning to oestrus were studied using sows representing 28 crosses from eight breeds at three stations. Of the sows farrowing their first litter, 12.9% failed to recycle within 50 days. The least squares mean for weaning to oestrus interval for all crosses was 13.5 days. Hampshire × Landrace, followed by Hampshire × Yorkshire sows had the shortest intervals (8.0 and 8.7 days respectively) whereas Large Black × Lacombe sows had the longest interval (22.1 days). Crosses involving the Yorkshire, Hampshire, Berkshire and Tamworth breeds had shorter intervals than those involving Landrace, Duroc, Large Black and Lacombe. Season of farrowing had significant effect ($P < 0.05$), with the shortest interval (11.4 days) occurring in autumn and the longest (15.1 days) in spring and summer. Weaning to oestrus interval increased with the increase in litter size. The interval was longer (15.7 days) at Lennoxville but similar at the other stations. There was a steady increase in size in the following litter with the increase in the weaning-oestrus interval. The heritability estimate (full-sib analysis) for the weaning-oestrus interval was 0.25 ± 0.10 . Repeatability based on limited data was calculated at 0.28.

INTRODUCTION

THE high percentage of sows failing to recycle after farrowing and prolonged interval between weaning and oestrus are two major reproductive problems facing pig breeders. Rasbech (1969) estimated that in Britain one-third of the breeding sows which are culled annually are discarded due to anoestrus and failure to conceive. Legault, Aumaitre and du Mesnil du Buisson (1975), summarizing the data on 100 000 litters in France, reported that the average weaning to conception interval varied between 20 and 25 days; Aumaitre, Dagorn, Legault and Le Denmat (1976) estimated an interval of 22.4 days.

The effects of various environmental factors on reproductive performance are considered in a recent review published by Van der Heyde, Lievens, Van Nieuwerburgh and Doorme (1974). However, very few studies reported the differences among genetic groups in the percentage of sows failing to recycle and the interval from weaning to oestrus (Burger, 1952; Lynch, 1965;

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