

EMBRYONIC MORTALITY AND DEVELOPMENT DURING EARLY PREGNANCY IN THREE BREEDS OF SWINE WITH PUREBRED AND CROSSBRED LITTERS

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Data on ovulation rate, litter size, fetal and placental weights and weight and length of uterine horns were taken at 23, 42 or 63 days of pregnancy on 138 Yorkshire, Landrace and Lacombe multiparous sows bred to Yorkshire, Landrace and Hampshire boars to produce purebred and crossbred litters. Of the 53 Yorkshire sows slaughtered, 13.2% were non-pregnant, compared to 7.5 and 8.5% for the Landrace and Lacombe sows, respectively. The average number of corpora lutea was 15.1 in Landrace, one more than in Lacombe and Yorkshire sows. Embryonic mortality in crossbred litters was 7.5 and 6.0% higher in Landrace sows than in Yorkshire and Lacombe sows, respectively. In purebred litters, it was 8.4% higher in Landrace than in Yorkshire. Litters sired by Yorkshire boars were 7.8% larger in number than those sired by Landrace or Hampshire boars. At 23 days of pregnancy, 19% of the ova released in the three breeds were lost. A further loss of 4% was noted at later stages. The weights of Landrace and Lacombe embryos were significantly ($P < 0.05$) heavier than those of Yorkshire at the 3 days of pregnancy studied. Crossbred embryos of Yorkshire and Landrace were heavier than purebreds by 27, 8 and 6% at the 23, 42 and 63 days of pregnancy, respectively. Weights of the uterine horns and placental membranes were heavier in Landrace and Lacombe than in Yorkshire sows. Little difference was found between Landrace and Lacombe breeds in embryonic, placental and uterine weights. Highly significant correlations ($r = 0.65, 0.57$ and 0.76) were found between placental and embryonic weights at the 3 days of pregnancy. Correlation between number of viable embryos and length of uterine horn was 0.30 and that with weight of horn was 0.10.

Nous avons mesuré le taux d'ovulation, la grosseur des portées, le poids des placenta, des foetus et des cornes utérines au 23, 42 et 63ème jour de gestation, de 138 truies multipares de races Yorkshire, Landrace et Lacombe saillies par des verrats Yorkshire, Landrace ou Hampshire pour engendrer des portées de race et des portées croisées. Des 53 truies Yorkshire abattues, 13.2% étaient non gestantes par rapport à 7.5 et 8.5% pour les Landrace et les Lacombe, respectivement. Le nombre moyen de corps jaunes rencontrés chez les Landrace était de 15.1, 1.0 de plus que chez les Yorkshire et Lacombe. Le taux de mortalité des embryons croisés était de 7.5 et 6.0% plus haut chez les Landrace que chez les Yorkshire et les Lacombe, respectivement. La mortalité des embryons de race était de 8.4% plus haut chez les Landrace que chez les Yorkshire. Les portées étaient en moyenne 7.8% plus grosses lorsqu'on utilisait un verrat Yorkshire plutôt que des verrats Landrace ou Hampshire. Au 23ème jour de gestation, 19% des oeufs relâchés ont été perdus; une perte de 4% était enregistrée aux autres jours étudiés. Le poids des embryons Landrace et Lacombe était plus élevé que celui des Yorkshire, aux stades étudiés. Les embryons croisés de truies Yorkshire et Landrace étaient plus lourds que les embryons de race et ce, de 27, 8 et 6% aux 23, 42 et 63ème jours de gestation, respectivement. Les cornes utérines et les membranes