

II. — REPRODUCTION

About sex ratio in pigs

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Variations of sex ratio at birth were studied retrospectively (number of males [p. 100] relative to the total number of piglets) in our experimental farm.

The study concerned all sows mated between September 1st 1973 and October 30th, 1979 : 1 100 litters (11 537 piglets) born from 288 sows and 21 boars. Boars belonged to the *Large White* (LW) or *Belgian Landrace* (BL) breed. Sows belonged either to one of these two breeds or they were crossbreds (LW × BL). Piglets came from 4 genetic combinations : (1) ♀ LW × ♂ LW, (2) ♀ LW × ♂ BL, (3) ♀ BL × ♂ BL, (4) ♀ (LW × BL) × ♂ LW.

Combination (4) gave a significantly higher number of males. The lowest sex ratio was registered with combination (3).

The influence of the sow breed seemed to be higher than that of the boar.

Sex ratio was changed by the age of the boar.

The litters of sows at their second gestation showed a significantly lower sex ratio.

No clear difference seemed to be linked to the season or the moon stage.

The highest percentage of males was registered in the litters of 10 to 13 piglets.

An attempt to modify the mineral nutrition (reduction of the alkaline/alkaline-earth ratio) led to a decrease of the sex ratio in primiparous sows and on the contrary an increase of this ratio in sows with their second litter.

New data on oestrus synchronization in the sow

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The possibilities of using a progestagen RU2267 (Regumate), to control ovulation was tested in farms on nulliparous and multiparous sows.

In cyclic nulliparous sows the mode of feeding applied when offering Regumate (18 days of treatment, orally, 20 mg/d/0) affected the efficiency of the method : more accurate grouping of heats with individual feeding. The introduction of a boar when the treatment was stopped suppressed that effect : 95 p. 100 of the sows exhibited oestrus over a period of 72 hours (day 5-7), whatever the mode of feeding. Inseminations on predetermined days are thus possible. Fertility and prolificacy obtained after artificial insemination in connection with induced oestrus were 74.2 p. 100 and 9.5 piglets born alive, respectively