Effect of inbreeding on the incidence of retained placenta in Friesian horses.


This study was motivated by the hypothesis that the incidence of retained placenta (RP) in Friesian horses is associated with inbreeding.

The objectives were to 1) calculate the inbreeding rate in the total registered Friesian horse population; 2) study the association of the inbreeding coefficient of the foal and the mare with the incidence of RP; and 3) study the heritability of RP in Friesian mares after normal foalings.

Data from the total registered Friesian horse population from 1879 to 2000 (52,392 individuals) were collected from the registration files of the Friesian Horse Studbook. In 1999 and 2000, 495 parturitions in 436 mares were studied.

From 1979 to 2000, the inbreeding rate of the total population was 1.9% per generation.

The regression coefficients for the regression of the incidence of RP on inbreeding coefficients of the foal and the mare were 0.12 +/- 0.052 and -0.016 +/- 0.019, respectively.

Mean heritability estimates of RP as a foal trait and as a mare trait were 0.046 +/- 0.088 and 0.105 +/- 0.123, respectively.

It was concluded that, in order to avoid a further increase in the incidence of RP in Friesian mares, a decrease in the inbreeding rate by increasing the effective breeding population is required.

Furthermore, the findings indicate that the high incidence of RP in Friesian horses is at least partly a result of inbreeding.
Effect van inteelt op het voorkomen van het aan de nageboorte staan

Geschreven door Administrator