

# RESEARCH REGARDING CONCEPTION RATE TO COWS USING HORMONOTHERAPY WITH GnRH AND PROSTAGLANDIN F<sub>2α</sub>

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## **Abstract**

*The sexual cycle is neuro-endocrine conditioned, and the smallest disturbances of the system may lead to its blocking. For example, after calving, the resumption of ovarian activity may be delayed, thus prolonging SP and CI respectively, ultimately leading to economic losses. There are often used hormonal blends in order to correct reproductive disorders or to intensify them. In the present paper, we aimed to evaluate two methods of oestrus induction in Holstein Friesian (HF) cows that did not come into heat in 60 days after calving. Batch L1, consisting of 91 cows, was treated with Gonadotropin Releasing Hormone (GnRH, 2.5 ml) and Prostaglandin F<sub>2α</sub> (PGF<sub>2α</sub>, 2 ml) according to the Ovsynch protocol. Batch 2, consisting of 27 cows, was treated with 2 doses of Prostaglandin F<sub>2α</sub> (2 ml) at an interval of 11 days. All cows were artificially inseminated, both those with clinical signs of oestrus during treatment and those without signs (to 18 hours after the end of treatment for the L1 group and to 72 hours for the L2 group, respectively). The average conception rate in cows in the first batch was 45.1%, higher in those showing obvious signs of oestrus (54.2%) and lower in cows without clinical signs of oestrus (42.8%). In cows from group L2, the conception rate was lower than those from group L1 (37.0%). To the cows of group L0 (63 heads), which spontaneously came into heat in the first 60 days post-partum, the conception rate was 57.14%.*

**Key words:** Gonadotropin Releasing Hormone, Prostaglandin F<sub>2α</sub>, cow, oestrus, conception rate