

Investigation the Difference of Several Hormones Correlated to Reproduction between Infertile and Fertile Dairy Cows

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Abstract : The object of this study was to investigate several hormones correlated to the reproduction and Inhibin A, Inhibin B and NO levels in the infertile dairy cows as attempt to illustrate the physiological causes of dairy cows infertility. 40 Holstein cows (21 infertile and 19 fertile) were used at estrous phase of the cycle, Hormones FSH, LH, E2, Testosterone, Were measured using ELISA method. Inhibin A and B also estimated by ELISA method, Nitric oxide was measured by Greiss reagent method. The results showed different concentrations of the hormone in which FSH illustrated significantly higher concentration in the infertile cows than fertile cows ($P < 0.05$). LH and E2 showed significant decrease in the infertile cows than the fertile cows ($P < 0.05$), No significant difference appeared in testosterone concentrations in the fertile cows and infertile cows ($P > 0.05$). The both inhibins A and B showed significant $P < 0.05$ decrease concentrations in the infertile cows also NO showed clearly significant decrease $P < 0.05$ in the infertile cows. In conclusion, The present study approved the poorly ovarian activities and reproduction disturbance of infertile cows in spite of trigger estrous signs, The study confirmed a positive correlation between inhibins and NO to regulate the ovarian physiology. These inhibins represent effective markers of dairy cows infertility.

Keywords : cows, inhibins A and B, infertility, nitric oxide (NO)

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