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Examination of The Hematological Profile of Cows At The Stage Of Early Pregnancy

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Abstract

The basic resource for monitoring animal health and welfare is the analysis of the hematological profile of blood. Cows' blood examination shows the ability of cattle to adapt to changing environment conditions as well as to pregnancy and lactation. Moreover, any reproductive disorders also affect the profile changes. The aim of the research was to determine the hematological profile of Polish Holstein-Friesian cows of the black and white variety up to the 50th day of pregnancy and heifers. During the research, statistically significant differences ($P \leq 0.01$) between the group of cows up to the 45th day of pregnancy and the group over the 45th day were noted in parameters such as GRA%, WBC, RBC, PLT, PDW, HCT, LYM%. In turn, no statistically significant differences were found in the following parameters: MCH, MON, MON%, MPV, PCT, and RDW. Similar statistically significant differences ($P \leq 0.01$) were obtained in the group of heifers with the parameters: PLT, GRA, RBC, LYM, LYM%, HCT, and no significant differences were found between MPV, MON, MON%, and RDW. It is crucial to examine the hematological profile of blood in high yielding cattle to maintain the profitability of the herd and high-level reproductive rate. Examination of the hematological profile allows for quickly diagnosis of disorders and diseases.

Keywords: Blood examination, dairy cattle, hematology, Polish Holstein-Friesian cows, pregnant cows