

## **INVESTIGATION OF FACTORS AFFECTING THE REPRODUCTIVE PERFORMANCE OF DAIRY COWS**

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The calving interval is one of the most important parameters in cattle breeding. Whether in the beef cattle sector or in the dairy cow industry, the aim is one calf per year. In dairy farms, the main and single product is the sold milk. Therefore, from an economic point of view, it is so important that the cows produce milk at the optimum level.

Effective fertility management is a key component of profitable dairy farming. Reproduction performance is influenced by several parameters. Non-return rate, which is the percentage of inseminated cows which do not show the sign of heat again for a set period, usually between 30 - 60- days, after insemination, the target is 75%. Calving-conception interval (days open) means the average time from calving to successful insemination: 85 days results is ideal to have one calf per year. However, in higher-yielding herds, a target of 95 days is more reasonable. Calving-to-first service interval is the time in days from calving to first insemination. This parameter depends on the voluntary waiting period, which defines the moment (in weeks postpartum) when insemination of a cows starts, and when the cows can be seen in oestrus. To achieve the goal of one calf per year, the ideal value is 65 days, however, an average interval of 75 days may be better suited to higher production level. And last, but not least the heat detection. Nowadays because of high producing level, it is very difficult to observe the signs of oestrus on time. Therefore, heat detection and timely insemination are essential for the profitability and economic success of the farm. The goal of the present study is to examine the changes of reproduction parameters in different production levels.