

## THE IMPACT OF GYNECOLOGICAL CONDITION ON BIOCHEMICAL BLOOD AND MILK COMPOSITION IN DAIRY COWS

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**Summary.** The aim of this study was to evaluate the impact of subclinical mastitis and reproductive efficiency in dairy cows on the biochemical composition of blood and milk. The experiment was performed at 11 Lithuanian Black and White commercial dairy herds on 2-3 lactations cows during one year period. All cows were divided into 3 groups: healthy cows (Group 1), cows with reproductive efficiency, which were not inseminated during 90 days after parturition (Group 2) and cows with subclinical mastitis (Group 3). The biochemical parameters of blood sera in Groups 1-3 were comparable. Group 3 have shown increased level on 2.6%, 7.8% ( $p<0.05$ ) and 6.6% ( $p<0.05$ ) of blood proteins, Ca and milk proteins and decreased amount on 1.5%, 5.5% and 5.1% ( $p<0.001$ ) of P, MUN and lactose, respectively, compared to Group 1. Group 2 have shown increased on 0.38%, 1.7% ( $p<0.05$ ) and 7.7% ( $p<0.001$ ) level of Ca, P and milk proteins and decreased on 1.28%, 8.0% ( $p<0.05$ ), 17.69%, 6.8% ( $p<0.001$ ) level of glucose, Mg, MUN and lactose, respectively, compared to Group 1. Our results revealed that results on infertility have higher impact on blood biochemical parameters compared to cows with subclinical mastitis.

**Keywords:** milk composition, cow, sera, milk composition, subclinical mastitis, infertility.