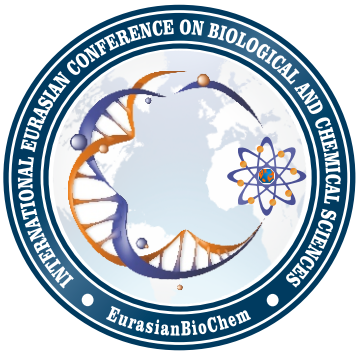


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Editor

Prof. Dr. Muhittin DOĞAN

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* This list is arranged in alphabetical order.

FOREWORD

5th International Eurasian Conference on Biological and Chemical Sciences (*EurasianBioChem 2022*) was successfully held on November 23-25, 2022 with a great participation from many countries.

The objective of *EurasianBioChem 2022* was to bring leading academicians, researchers, scholars as well as industrial professionals together from all over the world to exchange and share their experiences and research results about all aspects of biological and chemical sciences and to discuss the practical challenges encountered and the solutions adopted. In this context, we welcomed precious scientists and the greatest appreciation goes to all participants whose contributions have made this conference a success. I would like to thank the organizing committee and the scientific committee for providing this intense and high quality scientific environment.

I believe that the *EurasianBioChem 2022* has made important contributions to you at large and hope to see you at the *6th International Eurasian Conference on Biological and Chemical Sciences* (*EurasianBioChem 2023*).

Prof. Dr. Muhittin DOĞAN

Chairman of *EurasianBioChem 2022*

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1. ORAL PRESENTATIONS

1.1. ABSTRACTS

ORAL PRESENTATION

Investigation of PRL (prolactin) and LGB (beta lactoglobulin) gene polymorphism on milk yields traits in Holstein dairy cattle by PCR-RFLP method[#]

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Abstract

The aim of this study is to determine the effects of Prolactin (PRL) and Beta lactoglobulin (LGB) genes on lactation milk yield and milk composition in Holstein dairy cows by PCR-RFLP method. A total of 150 Holstein cows from three different dairy cattle farms in the Konya, Manisa and Diyarbakır provinces of Turkey were included in this study. Blood and milk samples were taken from Holstein dairy cows. Dry matter, fat, protein and lactose ratios of milk were determined from milk samples. DNA isolation was made from blood samples by means of ready-made commercial kits. Polymorphic regions of PRL and LGB genes were amplified by PCR. The obtained PCR products were cut with the RsaI enzyme to determine the genotypes of the PRL gene, and with the HaeIII enzyme to determine the genotypes of the LGB gene. The $\chi 2$ test was used to detect the genotypic distribution of polymorphic markers, and the General Linear Model (GLM) was used to determine the effects of PRL and LGB gene regions on lactation milk yield and chemical components of milk. The AA and AB genotypes of the PRL gene were determined in Holstein cows bred in three different farms. The AA genotype of the PRL gene was determined as the most common genotype. AA, AB and BB genotypes of LGB gene were determined. AB genotype of LGB gene was determined as the most common genotype in three different enterprises. In conclusion, while the effect of the PRL gene on the lactation period, lactation milk yield, and 305-day lactation milk yield was significantly in the whole population, the LGB gene was not significantly on these traits. On the other hands, cows with PRL AA genotype showed a shorter lactation period, but cows with AB genotype had higher lactation milk yield and 305-day lactation milk yield. There were no statistically differences among PRL and LGB polymorphic genotypes in terms of the chemical components of milk. These results suggested that the PRL gene may be evaluated in selection programs regarding milk yield.

Keywords: Beta lactoglobulin, Holstein, Milk composition, Milk yield, Prolactin, RFLP.

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