

The effect of oregano aromatic water on biochemical blood parameters, milk yield and composition in Holstein dairy cows

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Short title: **The effect of oregano aromatic water in dairy cows**

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Summary

This study aims to validate the effect of oregano aromatic water on milk yield, milk composition and biochemical blood parameters in cows. Eighteen lactating Holstein cows (3th lactating season / average 570 kg) were divided into three groups with two month period. First group was control; second group was drinking 10 cc oregano aromatic water per day while third group was drinking 20 cc per day. The SCC, milk yield, milk fat, milk protein, lactose, dry matter (DM), freezing point, Ketone, Alanine aminotransferase (ALT), Aspartate aminotransferase (AST), Alkaline phosphatase (ALP), Gamma-glutamyl transpeptidase (GGT), Lactate dehydrogenase (LDH), Glucose (GLU), Creatine (CREA), Urea, Total Bilirubin (TBIL), Direct Bilirubin (DBIL), Total Protein (TP) were analyzed. The milk yield was increased with oregano aromatic water ($P<0.05$). However, milk fat, milk protein, lactose, dry matter, freezing point and somatic cell count was not affected with oregano aromatic water. Gamma glutamyl transferase (GGT), Urea and total protein was decreased with oregano aromatic water ($P<0.05$) but other parameters unaffected by oregano aromatic water. In conclusion, oregano aromatic water increased milk yield of cows. It decreased some biochemical parameters such as GGT, Urea and TP. This is clearly shows that the oregano water used in lactating cows had beneficial effects on milk yield and there was no negative effect on blood parameters of Holstein dairy cows.