THE RELATIONSHIP BETWEEN MILK YIELD AND ITS CONSTITUENTS WITH SOME BLOOD CHARACTERISTICS IN DMASCUS GOAT

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ABSTRACT

A study was conducted at the Sheep and Goat Breeding Station/State Board of the Agricultural Research, 20Km west of Baghdad. Seventy Cyprus dairy goats were selected to investigate the regression relationship among three stages of milk yield as well as fat, protein, lactose and solid non-fat contents with plasma concentrations of glucose, protein and cholesterol. The regression coefficient of milk yield at first and second stages was significant (P<0.05) and negative on glucose concentration which were -15.829 and -17.922gm/mg respectively with determination coefficient 0.56 and 0.43.On the other hand, the regression coefficient of milk yield during three stages were highly significant and negative on plasma protein concentration which were -23.736,-29.571 and-26.362gm/gm respectively. Thus it might be predict with milk yield depending on plasma protein concentration. The regression coefficient during three stages were positive on plasma cholesterol but significant (P<0.05) for 2nd and 3rd stages. Moreover the regression coefficient of milk-fat content during three stages on plasma glucose, protein concentration were negative, but it was significant for 1st and 2nd stages on plasma glucose level non- significant for 3rd stage. Regression coefficient of milk fat on plasma protein in all stages studied was non-significant, while it was positive and significant with plasma cholesterol. The regression coefficient of milk protein on overall blood traits was positive and significant in all stages, except 2nd stage which highly significant on plasma protein and its value was 2.944gm/gm. Excluding data of regression coefficient of milk lactose on plasma cholesterol in 2nd stage which was negative and non-significant, all other coefficient of other blood characteristics were positive and significant. Regression coefficients of solid non-fat on all blood characteristics were positive except for 2nd stage on blood cholesterol which was negative and non-significant. The regression coefficients were significant during stage2 and 3 on plasma glucose and protein respectively

and non-significant during stage 1 on plasma glucose, protein and cholesterol respectively.

Key words: Damascus goats – Milk production – Blood traits – Regression coefficient.