

Effect of vitamin C administration on heat tolerance of local and Turkish Awassi sheep in Diyala Province of Iraq

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Abstract: The object of this study was done to evaluate the effect of increased environmental temperature on physiological traits of local Awassi (LA) and Turkish Awassi (TA) sheep ewe (of age 2-3 years) in Diyala Province of Iraq. Two groups (12 LA and 12 TA each) were divided into two subgroups (6 ewes each) and treated with two levels of vitamin C (ascorbic acid) (500 and 0 mg/kg of the ration respectively). Data were monthly recorded include; body weight (BW), pulse rate (PR), respiration rate (RR) and rectal temperature (RT). All traits were taken at monthly intervals (cold season) viz.; December, January and February, and in hot season viz.; June, July and August at 9am. The results revealed that the RT 39.1 and 38.8° C; RR 24.5 and 22.9 (rate/min); PR: 98 and 95 (rate/min) were for Turkish and Local Awassi sheep. While they were RT; 38.6 and 38.9° C; RR 23.0 and 23.7 (rate/min); PR: 96.2 and 97.0 (rate/min) for 500 and 0g/kg of vitamin C in the diet respectively. The difference between the two breeds were significant, also it was found that there was a differences in individuality. There for, it is possible to identify those animals with in breed is more or less resistant to the climatic conditions. This information may be used in program of selection to heat tolerance.

Keywords: Local Awassi, Turkish Awassi, heat stress