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SERGA



## **EVALUATION OF PHYSIOLOGICAL BEHAVIOR OF ITALIAN GARFAGNINA BREED GOATS**

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Garfagnina breed is a goat population originated from Garfagnina Valley (Italy). At present the population is around 2500 animals. Although it is considered a dairy goat is unknown any current programme of genetic improvement for this breed. The aim of the present work was to analyse the physiologic parameters and determine the indexes of thermal comfort regarding to the degree of adaptability of the females of this goat. The study of 80 females was carried out during the spring and the daily period of data collection was from 9:00 a.m. to 4:00 p.m. As results the average values found for air temperature, relative humidity, wind speed, globe-thermometer temperature, THI and BGHI indexes, and CTR during the morning were 15.6°C, 52,22%, 1,5m/s, 18,49°C, 58,79, 61,38, 461.84 and 22.75°C, 33.40%, 1.5m/s, 30.90°C, 65.50, 73.34, 625.30 during the morning and the afternoon respectively. Data were analysed through ANOVA (analysis of variance; SAS® program) considering the fixed effect of daytime (morning or evening). There was a significant difference between morning and afternoon for almost all the data analysed. Thus, the environmental indexes were higher in the afternoon than in the morning, even if all the values remain inside the normal values. The physiological data analysed were: respiration (RR) and hearth (HR) rates, rectal temperature (RT) and surface temperature (ST) collected at 9:00 a.m. and 16:00 p.m. RT was 38.27°C and 39.23°C during the morning and the afternoon respectively remaining inside the values considered normal for the species. RR was 26.73 mov/min and 31.62 mov/min during the morning and the afternoon respectively whereas ST was 33.71°C and 34.63°C during the morning and the afternoon respectively. Afternoon values were higher than morning values but within the limits considered normal for the species. Afternoon could be considered stressful for the animals but at the same time it triggers the mechanisms of homeostasis maintenance.