

Differences in tick infestation of Tunisian sheep breeds

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Abstract

Different infestation patterns by ixodid ticks were studied in three sheep breeds in Tunisia: Barbarine, Queue Fine de l'Ouest and their cross-bred animals. During one year, 700 sheep were monitored and examined for tick infestation. A total of 722 ticks were collected from sheep ears. The most frequent tick species was by far *Rhipicephalus sanguineus sensu lato* (99%) and there were few specimens of *Rhipicephalus bursa* (1%) ($p < 0.001$). Overall infestation prevalence was estimated at 10.4%. The lowest infestation prevalence was in

Barbarine sheep (7.3%), followed by Queue Fine de l'Ouest (16.7%) and the highest prevalence was in cross-bred sheep (19.1%) ($p < 0.001$). Mean overall infestation intensity was 1.6 ticks/sheep: lowest in Barbarine (1.4), followed by Queue Fine de l'Ouest (1.7) and cross-bred sheep (1.8). Similarly, abundance was lowest in Barbarine sheep (0.1), and was 0.3 in Queue Fine de l'Ouest and cross-bred animals. The results demonstrated a reduced infestation, possibly due to reduced attractiveness and/or increased resistance to tick infestation, of the Barbarine breed compared with the other two breeds. Further behavioural, genetic and molecular studies are needed to explain the mechanisms for the lower infestation indicators.