

Relationship between Reproduction Performances and Coat Characteristics of Montbeliarde Cows during Hot Season in Algeria

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Abstract : This study aimed to explore the relationship between reproduction performances and coat characteristics of Montbeliarde cows born in Algeria or imported from Europe during the hot season in Algeria. Hair coat traits (hair coat color, Hair Weight, hair length, the number of hair per unit area, total hair diameters and hair medulla diameters) were estimated in 18 imported cattle and 49 locally born cows. These traits were measured in an area of 20cm below the dorsal line in the center of the thorax. Results showed that hair coats were significantly different between locally born and imported cows. Imported cows had whiter coats when compared to locally born cows for Montbeliarde cows. A significant effect of total hair diameter was observed on the interval from calving to conception (IC) for imported Montbeliarde cows, suggesting less incidence of heat stress on reproduction efficiency of cows with thin diameter hair coats. Montbeliarde cows with short hair coat registered significantly more number of mating per conception (2, $28 \pm 1, 93$ Vs. $1,67 \pm 0,92$) and IC ($98,04 \pm 78,81$ Vs 74.53 ± 35.60 days) when compared to cows with long hairs. Hair works as a temperature regulator in association with muscles in the skin and may affect reproduction performances during hit stress season. It can be assumed that the length and a total diameter of hairs for the Montbeliarde breed appears to be related to their reproductive efficiency.

Keywords : hair coat, reproduction, Montbeliarde cow, hot season

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