Tropentag, September 17-19, 2014, Prague, Czech Republic

"Bridging the gap between increasing knowledge and decreasing resources"

Impact of Management Systems and Breeds on Milk Yield and Herd Structure of Dromedary Camel

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Abstract

Camels (*Camelus dromedarius*) contribute significantly to the livelihood of pastoralists and agro-pastoralists living in the fragile environments of the deserts and semi desert of Asia and Africa. In Sudan, the four camel management systems include traditional nomadic system, transhumance or semi-nomadic system, sedentary or semi-sedentary system and the intensive system. This study investigated the impact of breed on milk yield, herd size and herd composition of she camels reared within two different production systems: The first was the dominant traditional nomadic system at Sinnar State (Nefidia breed) and Gezira State (Butana breed). The second was the newly developed semi-intensive system at Khartoum state (Kenana, Anafi and Bishari breeds). The milk yield was significantly ($P \leq 0.05$) affected by production systems and types of camel breed as the overall mean of daily milk yield in the semi-intensive system was 3.49 ± 0.89 L day^{-1} compared to that reported in traditional nomadic system (2.73 ± 0.65 L day^{-1} and 3.30 ± 1.12 L day^{-1} for Butana camel and Nefidia camel, respectively). Moreover camel herders in semi-intensive system practised three times milking per day, whereas in nomadic system adopted two times milking per day. The herd size under semi-intensive system was significantly ($P \leq 0.05$) smaller than that kept under the nomadic systems (61.5 ± 40.1 vs 132.5 ± 117.6 and 71.3 ± 34.3). This study showed the impact of management systems and types of breed on milk yield, herd size and herd structure of camels in Sudan. Therefore, factors associated with camel breed, population and production should be considered when addressing the potentiality of camel for milk production.

Keywords: Camel breed, camel production systems, herd composition, milk yield, Sudan

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