Strategies to improve milk production in camels

Nowadays there is an increasing interest in camel's milk for human nutrition due to its functional properties. As a result of market demand for commercial milk production, intensive dairy camel's farms using modern machine milking have been recently created. However, the genetic improvement for milk production in dairy camels is slow due to long life-span, low fertility, low numbers of offspring, delayed age at first calving, high calf mortality and abortion rates, and unknown heritability of specific dairy traits. Moreover, the lack of camel Identification (ID), milk recording systems and selection of adequate udder morphology to the machine milking are considered to be major obstacles that face any attempt to develop camel agribusiness. Modernization of livestock farms led to the adoption of ID tools such as visual (e.g., brands, tattoos, ear tags, and collars) and electronic (e.g., injectable, ear tags, and boluses). Recent results indicated that ear tag retention is not fully satisfactory to identify camels, needing the use of a second ID system (dense electronic ruminal bolus is recommended). The high readability of dense electronic boluses recommends their use as a permanent ID device of reference in camels. Performance recording of individual animals is usually associated with selection for genetic improvement. Different factors should be taken into account when implementing a new milk recording scheme in dairy camels, such as: farming systems, breed, milking routine, operator training, cooperation between camel farmers, and recording organizations and health status. Udder morphology traits should be considered as economically important traits in camel selection programs. Therefore, excluding camels with pendulous udder as well as blew-up teats and low milk flow peak is the first step to select for the future dairy camels. Recent results shown a sufficient udder pre-stimulation (90-120 seconds) ensures higher milk flow rate and faster milking in dairy camels.

Biography

Moez Ayadi is currently working as an Associate Professor of Physiology and Milk Production at the Department of Animal Production, College of Food and Agriculture Sciences, King Saud University. He obtained his degree in Agricultural Engineering (Animal Husbandry) in 1993 at the Institut National Agronomique de Tunisie, and PhD in Animal Production at the Autonomous University of Barcelona, Spain in 2003. He worked at the State Lands Office, Tunisia during 1993-1997 as Head of Animal Production. He contributed to the development of teaching and research in veterinary faculty of the UAB during 1998-2003, in the University of Gabes, Tunisia from 2005-2010 and in University of Jendouba, Tunisia from 2010-to date. He has been FAO expert in Milk Production, Saudi Arabia since 2013. His main fields of research and extension interest are lactation physiology and management of dairy ruminants. He published more than 75 papers and abstracts in scientific journals and proceedings of national and international meetings.

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