



Mongolian Bactrian camel -Breeding, Milk Production, and Lactation Curve

Description

Visit of Mongolian Bactrian camels and their Ecosystem

In April 2018, the author visited Mongolia, especially the Gobi desert to visit the Bactrian camel herders and explore the potential of camels in their unique ecosystem. The details of the survey report can be read at the link.

<https://arkbiodiv.com/2018/06/21/the-camel-milk-story-from-the-gobi-desert-mongolia/>
Interviewed by the national TV of Mongolia

Types of camel

There are 3 types of Bactrian camels in the region, i.e.

1. Galba Gobiin Ulaan (Reddish-colored camel)
2. Khaniin Khestiin Khuren (Brown colored camel)
3. Thukhum MTungologiin kKhos Zogdott Khuren (double line neck hair)



Beautiful Bactrian Calf

Breeding Season

The breeding season starts in October and reached its peak in December and slowly declines and ceases in April. Usually, **one Bull is enough for up to 70 she-camels**. The details of the production traits are given in the table below.

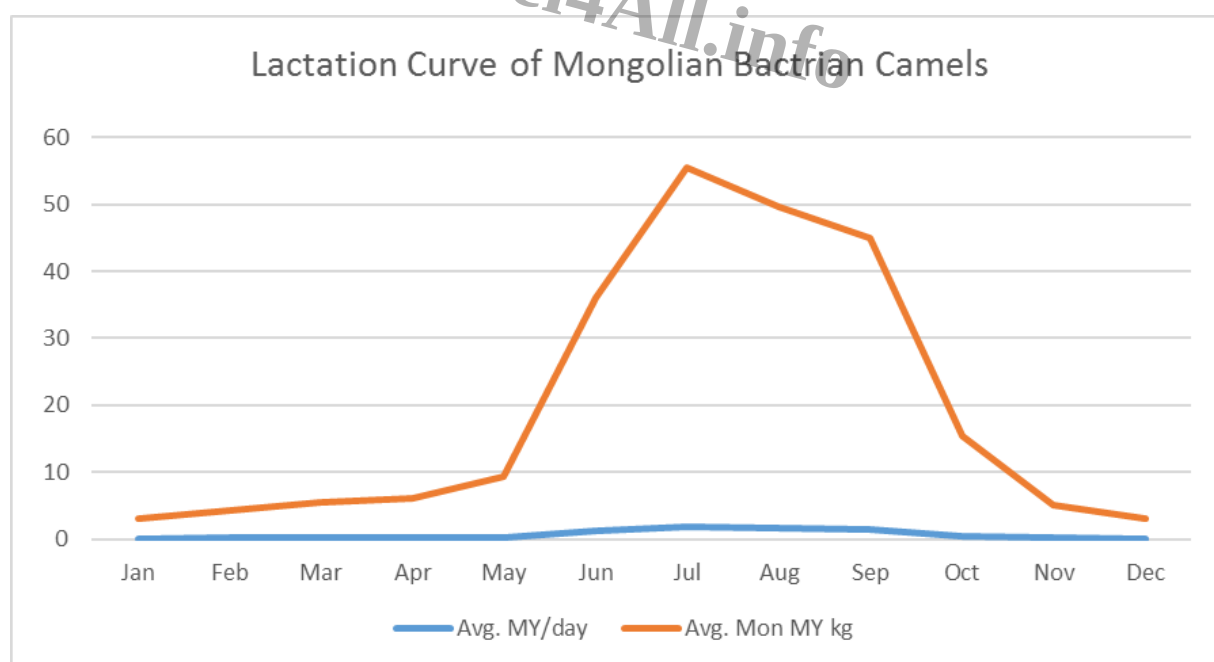
Table: The Production Traits of the Bactrian camel in the region

Months	Conception Rate (%)	Calving %age	Avg. Milk (kg)
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Jan	25	25	0.1
Feb	15	16	0.15
Mar	4	5	0.175
Apr	2	3	0.2
May	2	1	0.3
Jun	1	1	1.2
Jul	1	1	1.8
Aug	1	2	1.6
Sep	3	2	1.5
Oct	5	4	0.5
Nov	16	15	0.17
Dec	25	25	0.1

Breeding season, Percentile of fertility, and milk production

The milk production potential and the lactation curve



Though the Bactrian milk production potential is lower (1-3 liter/day) compared to the Arabian camel (5-15 liter/day), the Bactrian milk is thicker (up to 14% total solids) and full of energy to give special strength to the calf to survive in challenging cold environment. The average milk production based on my survey is 640 ml/day (< 1 kg/day) with a **lactation yield of 233 kg**. The lactation here is calculated on the annual basis but in actuality, the camel produces for up to 8 months, producing 185 liters in 250 days. Here milk production means the milk which was harvested by the milker keeping in view the calf requirements.

Bactrian camel milk composition

No. Component Avg. % Highest level

1	Protein	3.5	4
2	Fat	3.5	5.5
3	Lactose	4	5
4	Ash	0.8	0.85
5	Total Solid	12	14
6	pH	6.3	6.6

Milk composition derived from scientific literature for Bactrian

Physical-chemical characterizations of Mongolian Bactrian camel milk

Components % Bactrian (BCaM) Arabian (ACaM)

Specific gravity	1.014	1.017
pH Values	6.43	6.77
Total Solids	14.23	12.74
Fat	5.39	4.47
Protein	3.2	3.2
Casein	2.5	2.5
Lactose	5.1	4.95
Ash	0.8	0.7

Comparative composition reported from Mongolia by GansaiKhan et al 2011

Some Important Notes about the Bactrian camel Milk

- The BCaM has higher contents of long chain (polyunsaturated) fatty acids (Mostly C18:1), safe for our heart and circulation system.
- The BCaM has higher contents of Vit. A and Vit. C, providing additional vitality and survivability to cell life and health.
- BCaM is rich with Immunoglobulin (considered as supper immune bullets) enabling our health to resist all types of infectious microbiomes.
- The above facts are equally true for Arabian camel milk (ACaM).

Camel Milk Products

The nomads use camel milk as fresh directly. The surplus is converted into a fermented product (**Hormook**). The Hormook is used very widely and some products are available in the market in Ulaanbaatar. For further details about Bactrian milk, you can go to the link [Detailed Nutritional Composition of Bactrian Camelâ€™s Milk](#)



Hormook

The surplus Harmok is converted into CM Vodka and the residues are used to make Curt. Curt and Vodka are offered to the guests as a unique product of the Gobi.

The Attachment of Nomads with camel

The nomads love their camel very much. They call it Themeh in the Mongolian language. They use camels for milk, riding/racing, festivals, wool, and also for meat (in rare cases).

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