

Facts and Figures of Camel Milk in Terms of Therapeutic Usage, Camel Milk Business and Nutritional Value

Chef Devashish Pandey

Assistant Professor, School of Hotel Management and Tourism, Lovely Professional University, India

Abstract: Milk is a great source of vitamin, protein and even fat, it's been the most common among the people in the world, whether its village or town the demand of cows and buffalos milk is extremely high and it is consumed by all the categories of people. Even we must have heard from many people that their day is incomplete without consuming the milk in morning, not to forget our beloved bed tea and most of the desserts are completely depends on the milk. But can we change this orthodox thinking about the Milk, if no then it means yes because in this era we are habitual to try new things and when it comes to the health we changes our statement from No to Yes. Opportunity has been created in the market as awareness about the healthy life style is spreading across the India and increasing knowledge about the therapeutic usage of common available ingredients also one of the factors which helps investor to invest their precious money into safe and profitable business. Camel milk is one of the best among all the milk available in the market but supply as compare to other milk is very less due to lack of demand, lack of source, lack of trust on the company.

Keywords: Therapeutic use, camel milk, source, nutrition content, immunity

1. Review of Literature

To be able to understand the various therapeutic usage of camels milk and the nutritional value of camel milk as compare to the cow milk. Different thought of entrepreneurs in the camel milk business. Expansion in the supply of camel milk in the market. (Berhe Tesfemariam, Seifu Eyassu) there are some challenges in the processing of camel milk whether it is the processing of butter and processing of cheese it happens due to different casein distribution and amino acid composition in camel milk as compare to bovine milk. Production of camel milks by product is not the solution to increase the awareness about the camel's milk just a proper channel of communication and business strategies are required. There is huge requirement of innovative ideas in the distribution process of camel milk and there are some factors which is being discussed in the paper that can help entrepreneurs to look into the matter and can uplift this milk revolution which is known for miraculous health benefits.

2. Introduction

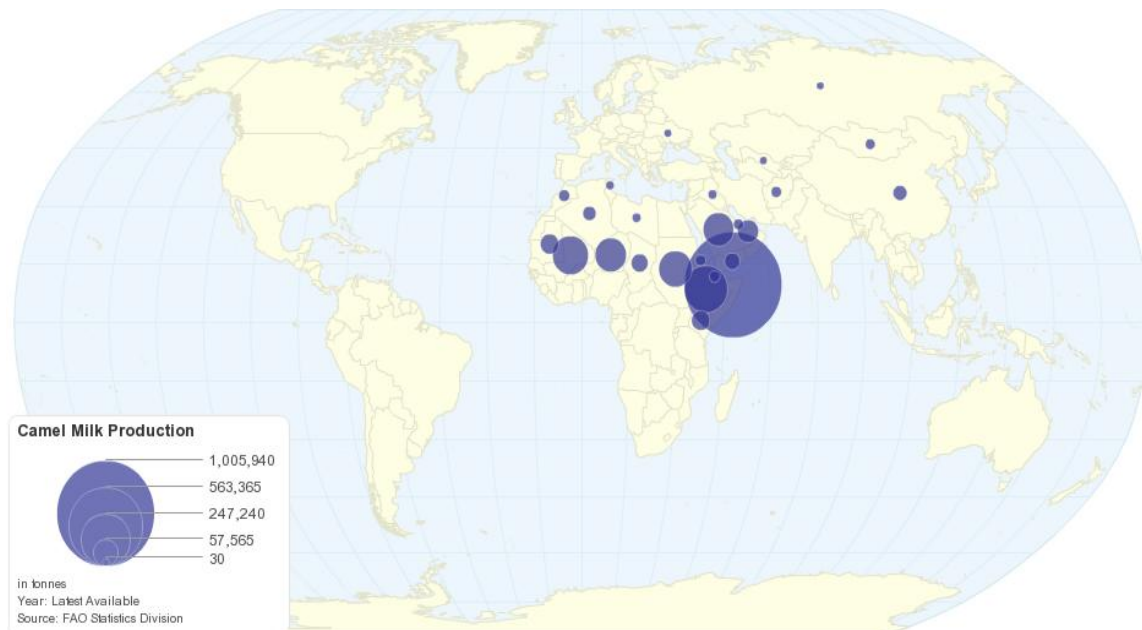
Camel milk is very popular in Rajasthan because it's the abode of Camel's. (Berhe Tesfemariam, SeifuEyassu)

camel's milk which contains protein around (3.1% to 4.9%), Fat(3.5%),Lactose (4.4%),Ash(0.80%) and milk solid (11.9-12%) and vitamin (A,B,D) , It has less cholesterol as compare to Cow and Goat milk. The camel milk is available in the form of pure milk, milk powder and even milk processing companies has started selling camel's milk chocolate as well. This Milk also contains high vitamin and mineral content. Two different types of protein presents in camel milk and that is casein and whey protein, whey protein contains (Albumin and immunoglobulin). (Zibae said and Hosseini Syedmusa Al Reza) camels milk is very similar to the human mothers milk, which can be the best substitute of the dairy supplement's thatwe can give to the infants.

Table 1: Proximate composition of camel milk compared to milk of other species.

Species	Total solids (%)	Fat (%)	Protein (%)	Lactose (%)	Ash (%)
^a Camel	12	3.5	3.1	4.4	0.8
^b Bovine	12.7	3.7	3.4	4.8	0.7
^b Caprine	12.3	4.5	2.9	4.1	0.8
^b Ovine	19.3	7.4	4.5	4.8	1
^b Human	12.2	3.8	1	7	0.2

Sources. ^aAlhaj and Al Kanhal (3)



Source- FAO Statistics(milk production in world)

Afghanistani camels can produce up to 30 liters milk per day which is just few pounds behind the capacity of “Jersey cow”. Worldwide there are two types of camel which can be differentiated based on their body structure and milk production capacity.

- 1) Bactarian camel – This camel has 2 humps in the back and can produce in between 3-5 liters per day
- 2) Dromedary Camel- This camel has only one hump in the back and can produce up to 20 liters per day. The fat content in the dromedary camel is (1.2 -6.4%)

To increase the Camel milk business companies has to focused on –

- **Market survey**-A proper survey based on the people thoughts and conceptions about the camel milk, later to find out the area where the business can be started so that it will be easy to access and can be transported around the city.
- **Feasibility**-Transportation is one of the major concerns when company deals with raw or fresh milk because shelf life is very less even though it is treated well.so before taking orders and delivering the milk feasibility should be checked whether it is domestic or going for export.
- **Free sampling**-just to create / establish the name of the company free sampling around the area and exposing the techniques being used in the milk processing can be one of the major tool to attract the people.
- **Replacement of protein supplement's**- there is no doubt that camel milk can be replaced with many protein supplement's and if anyone is lacto allergens than they should not have any hesitation to try the camel milk protein supplements.
- **Campaign /road show**- in backward rural areas where there is no infant food substitute and lack of mother milk; to aware about the therapeutic uses of camel milk among the people campaign can be done including their strong effective local language.
- **Observation**- Giving milk to the people those are suffering with autism disorder, lacto allergen and protein

supplements. After that maintain the data and observe what would the consequences of using camel milk in their body and later can introduce to the market with full practical evidences.

- **Strength of company**-If company profile is strong enough and they have already having a existent customers of their previous products than for them creating a new products won't be difficult and the belief of customer in the company is enough to attract them.

Camel milk is available in the forms of

Raw/Fresh milk- This form is very safe and effective when it consumed raw and in this stage transportation around the city cannot be done due to easy attack by pathogenic microorganism. Traditionally The Raika camel pastoralists drink raw camel milk while it is very fresh, which is generally safest way to consume it.

Pasteurization-(Central Veterinary Research Laboratory in Dubai) states that pasteurization increases the shelf life and it helps to retain the nutritional value of milk also. It also makes milk safe to consume. All Camel milk selling companies are pasteurizing the milk and later frozen before transportation.

Powdered milk another form of camel milk which is dehydrated form of camel milk used for making chocolate and healthy bar snacks. The biggest advantage of powdered milk is easy to transport around the globe, and is even imported from other countries. But the major flaw in drying process it can lose some nutrients, so it doesn't have the same nutritional value as compare to the raw milk..

Therapeutic Uses of Camel's Milk

(Zibae said and Hosseini Syedmusa Al Reza) There are many therapeutic uses of the camel milk –

In middle east (GCC) the most common milk is camel milk which gives them better immunity and it is also makes their children safe against various disease.

- 1) Intolerance of lactose- suitable for those categories that doesn't want to take any chances by consuming cow/buffalos milk.
- 2) Remedy of diarrhea it fights against the virus (Rota virus)- Best home remedy which can cut down your unnecessary charges of medication.
- 3) Milk allergy- Can be given to the infant it could be alternate of Mothers milk
- 4) Autism spectrum disorder –children's who suffers from improper development growth of brain, learning disability, epilepsy, obsessive compulsion disorder, for them camel milk is very useful.
- 5) Food allergies- cow's milk can be replaced with camel milk.
- 6) Miraculous effect on diabetes – Camel milk is suitable for the diabetic patient, it helps to control and minimize the risk of bad effects of diabetes on the body

3. Research Discussion

In recent conversation with Jaipur based camel milk supplying company "Raika Camel Doodh" they explained the importance, popularity and the nutrition facts of camels milk. According to them people who is suffering from diabetes and other health related problems are consuming this milk and this is one of the natural home remedy for them to cure the disease.

The Raika's Camel Doodh Supplies milk from Jaipur to their surrounding places and other states as well including Delhi and Some cities of Punjab. The idea of opening this business came in their mind when they were travelling in the bus and had a formal conversation with one passenger who was suffering from diabetes and knew the importance and impact of camels milk on health then they decided that why don't we start selling the camels milk where people are aware enough about the therapeutic uses of camels milk, That's how they came into this business.

Very soon "Raika's Camel Doodh" will be coming up with some attractive camels milk product. In market there are already few brands that have developed some products such as camel milk chocolate, Camel milk powder and pure camel milk.

If we compare the Price of Raika's Camel Doodh with other camels milk brand it is quite affordable and slowly creating their name in the market ,The only statement they says that they don't compromise with their quality and customers satisfaction which is up to the mark so far as per the customers feedback.

They are ready to deliver the milk from Jaipur to any of the surrounding states and it is quite possible because milk is well pasteurized and has shelf life as compare to raw milk, and if it is frozen than the shelf life is increased and retain up to 1year as per the research.

4. Conclusion

In India where demand is less because we prefer all the fresh from the farm and when it is about the milk than it has to be more than fresh to overcome this problem milk should be reached to every parts of India it can be only possible by freezing the milk it cuts down the risk of spoilage and gives immense shelf life to the milk. All the methods which has been discussed to promote the camel milk business will also support to spread the business around the India. There are plenty of health benefits of camel milk which can be heavily floated through social media, the only milk which is absolute substitute of mother's milk and has enormous therapeutic uses need no much introduction but genuine circulating the information can increase the popularity of the milk.

References

- [1] (Zibae said and Hosseini syedmusa al reza) 2015 Nov; 7(7): 1523–1528. Nutritional and Therapeutic Characteristics of Camel Milk in Children: A Systematic Review doi: 10.19082/1523
- [2] (Berhe Tesfemariam, Seifu Eyassu) Volume 2017, Article ID 9061757, 8 pages, Processing Challenges and Opportunities of Camel Dairy Products, doi.org/10.1155/2017/9061757
- [3] O. A. Al haj and H. A. Al Kanhal, "Compositional, technological and nutritional aspects of dromedary camel milk," International Dairy Journal, vol. 20, no. 12, pp. 811–821, 2010.
- [4] <http://www.fao.org/dairy-production-products/production/dairy-animals/camels/en>
- [5] Camel milk (whole, fresh) Production (tonnes), FAO Statistics Division 2011.
- [6] (Mirmiran Parvin , Ejtahed Haneih Sadat) 2017 ,15(2): e42150. Camel Milk Has Beneficial Effects on Diabetes Mellitus: A Systematic Review, doi: 10.5812/ijem.42150
- [7] (Ayadhi Laila Y. AL , Elamin Nadra Elyass) 2013: 602834. Camel Milk as a Potential Therapy as an Antioxidant in Autism Spectrum Disorder (ASD) doi: 10.1155/2013/602834
- [8] Camel Milk: Nutrition Facts, February 2, 2016, Risks & Benefits, <https://www.livescience.com/53579-camel-milk.html>,