

CAMEL MILK

THE UNTAPPED RESOURCE



It is a matter of pride that Gujarat State has the second highest camel population in India. Traditionally camels were raised for their draft purpose utility but in this era of mechanization, their value has fallen. A secondary source of income for camel breeders is the sale of camel milk. The Kachchhi camel breed of India is the one of the only dairy breeds of camel in India, and is native to Kachchh district of Gujarat. The other breed is the Kharai camel, also native to Kachchh-Gujarat, which is currently awaiting formal recognition as a distinct camel breed of India.



Camel milk is unique in its nutritional and medicinal value, which has been established by extensive research. To further explore the utility and earning potential of camel milk, the Government of Gujarat has sanctioned a project of camel milk collection, processing, packaging and marketing under the internationally known brand 'AMUL.'

This project is at a standstill as camel milk is not legally considered a food item in India. The Department of Animal Husbandry, Government of Gujarat, Kachchh Camel Breeders Association, Sahjeevan, an NGO based in Kachchh, and AMUL, are working collectively to register camel milk as a food item.

It is my pleasure to introduce this booklet that covers the different patterns of consumption of camel milk in Kachchh. The Kachchh Camel Breeders Association and Sahjeevan have compiled it. I am confident that it will be of great use in showing people that camel milk is a valuable food item, and will help to make our dream of opening a dedicated camel milk dairy a reality. I wish the Kachchh Camel Breeders Association the very best in their efforts to support their traditional livelihood.



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There are many myths surrounding camel milk – it tastes bad, or it is highly perishable, or that it is difficult to digest. These ideas are propagated by a lack of understanding of the properties of camel milk, and often the proponents of such myths are people or institutions that have no direct experience of camels or camel milk. To debunk these ideas, it is important that scientific research and reports are accompanied by human stories.

How is camel milk used and consumed today in the regions where it is available? What are the experiences of those who drink it? How do they perceive its taste, digestibility and nutritive value? This document attempts to answer these questions by investigating patterns of human consumption of camel milk in Kachchh district, Gujarat.

In Kachchh, there is a high level of trust in traditional knowledge systems. Camel milk is often described as the most nutritious milk available, and as an effective solution for a variety of health issues. In July 2014, Sahjeevan conducted interviews with a number of camel breeders, as well as other local people who purchase camel milk for their own consumption. The interviews were conducted in villages in western and eastern Kachchh.

One camel breeder in Lakhpat taluka said, “So many people here drink camel milk for so many reasons – they like it, or they know it is healthy, or they are treating some illness. It is impossible to keep track!” The interviews demonstrated the truth of this. The experiences shared were wide ranging in terms of the reasons people chose to drink camel milk, and the number of illnesses or ailments they hoped to treat by drinking it.

It is important to note here that this document in no way means to suggest that camel milk ought to be used as a substitute for prescribed medication, especially where illnesses such as cancer and diabetes are concerned. Rather, some of the stories within suggest that camel milk can assist in controlling a number of ailments, and may serve as a useful complement to regular medication. Further research is encouraged.

KEEPING FIT WITH CAMEL MILK





Name: Budhabhai Dodiya

Age: 50

Occupation: Farmer

Village: Kanmer, Rapar

Budhabhai cannot remember when he started drinking camel milk. "I was very young," he says, "I drink it because I like it, and because it keeps me fit. My whole family drinks it!"

A farmer by trade, Budhabhai has never been seriously ill, and he attributes his health to his regular consumption of camel milk. He keeps some cows and buffaloes, whose milk he uses as well as sells. His camel milk is sourced from Danabhai Rabari in Kanmer.

On average, he says he drinks about 0.5-1 litre per day. He has no real preference for drinking it fresh or boiled – he drinks it both ways and says the taste is just as good. His family also cooks with it, making kheer as well as mawa out of the milk.

"Camel milk tastes better. It is stronger, sharper than cow or buffalo milk. It is what we choose to drink because it keeps us all healthy."



Name: Khetabhai Rabari

Age: 50

Occupation: Driver

Village: Kanmer, Rapar

Khetabhai's family were traditionally maldharis but he has been a driver for the past 30 years. When asked why he drinks camel milk he says, "Well everyone will ultimately drink whatever they want. I love camel milk, so that is what I prefer to drink!" He adds that his health is undeniably better for the amount of camel milk he drinks.

"There was a time when I could drink 15 litres in a day!" He says. "Now I've had to cut down because I have gotten into the habit of eating supari and it cuts my appetite." Today, Khetabhai drinks 5 litres of camel milk daily. He gets his milk from a local dairy where he buys about 10 litres everyday. He drinks half, and the rest is used at home for tea or to cook kheer or mawa.

Khetabhai travels about 15 kilometres every day to buy his camel milk. "The problem is that there aren't as many camels these days. It's getting harder and harder to get camel milk, which is why I have to drive quite far." The distance, he says, is entirely worth it.



Name: Lakshman Reva Goswami
and Vinodbhai Lakshman Goswami
Age: 79; 45
Occupation: Retired;
Ice cream shop owner
Village: Ghaduli, Lakhpat

Lakshmanbhai worked for many years at the Community Health Centre in Dayapar, Lakhpattaluka. He comes from Lakhpat village, but has now settled in Ghaduli as his son runs a shop there. He has been drinking camel milk for many years now, since he was a boy. According to Lakshmanbhai, camel milk is the best preventative. **"I am never ill! I never get gas, or acidity, or any kind of body pain. It all comes down to the camel milk."**

Lakshmanbhai's son Vinod has also been drinking camel milk for many years. "I remember when I was 12 and we still lived in Lakhpat, the camel maldharis would pass nearby and we would get a big pot full of milk. That taste! Ah, I still remember how good that was!" Vinodbhai first read about the health benefits of camel milk in the Kutch Mitra newspaper, and he too tries to drink it as often as possible.

Both the men boil the milk before drinking it plain. They also make kheer, and dahi with it although Lakshmanbhai stresses that camel milk is never used for butter or chhaas. The camel is holy, he explains. To make butter or buttermilk – it simply is not done.

At Vinodbhai's ice cream shop, camel milk is used to make kulfi as well as badam shake. Can the customers tell they are eating a dessert made of camel milk? "Never!" says Lakshmanbhai. "They can't tell the difference and they think it is delicious!" Vinodbhai adds, "The fat content in camel milk is excellent for kulfi. It always comes out better with camel milk than with cow milk."

They get their milk from a camel herder named Ahmed Tajmamad Jat, but the supply is not always regular as that herd is often grazed too far away from Ghaduli. Regardless, they always purchase the milk when it is available. They feel that camel herders tend to get an unfair price for

their milk. They see the value in camel milk, and are happy to be able to support the camel herder by buying it whenever they can.

Vinodbhai says, “Some people hear about the health benefits of a certain food, and then they only start to eat it after they've fallen sick. I say, why fall sick at all? I may as well be drinking the milk now, and then that illness will never come to me.”



Name: Amarabhai Suja Solanki

Age: 50

Occupation: Farmer

Village: Kanmer, Rapar

Amarabhai has been drinking camel milk for at least 20 years now. He is a farmer, and does not keep camels himself, but he drinks the milk whenever he gets the opportunity to do so. According to Amarabhai, camel milk is an excellent remedy for small illnesses. He does not drink it regularly but “Whenever I have a fever or a cold,” he says, “My very first thought is always of camel milk. I think of it before I think of any medicine.”

The health benefits of camel milk are hardly a secret in this region. Amarabhai says that using camel milk as a remedy is not restricted to the older people in the village. Plenty of younger people seek it out when they fall ill. Its use is not restricted to a certain community either. “It doesn't matter who we are,” says Amarabhai. “Whether we're Rajputs, Patels, whatever – we all drink camel milk and we all like it.”

CAMEL MILK AND DIABETES





Name: Haji Chhathi Sotha
Age: 62
Occupation: Maldhari
Village: Mankaravandh, Lakhpatri

Hajibhai was diagnosed with diabetes seven years ago. While he has been on medication ever since diagnosis, he says that it never really seemed to help him. A doctor in Nakhatrana had suggested that he try camel milk, but he only began to drink it regularly about 5-6 months ago on the advice of his vaid (ayurvedic doctor).

While he has a herd of sheep and goats that are the base of his livelihood, in the past Hajibhai had kept camels. After the vaid told him to drink camel milk, Hajibhai purchased two camels to ensure a regular supply. He drinks 500ml daily, once in the morning and once at night.

There has been a lot of benefit. **"The difficulty with this disease,"** says Hajibhai, **"Is that when I was grazing my animals I could not always control my diet."** While at home he mostly consumes rotlo and sugarless tea, he would often drink sweet tea or eat sugary food when out with his herds. The camel milk, he says, has really helped bring his health back into balance.

His son Ashraf interjects, "If you had seen him before, you would understand what a huge difference the camel milk has made. When we took him to the hospital in Nakhatrana, he could barely walk, his condition was so bad." Today, Hajibhai is the picture of health. He does not appear to be ill at all. His blood sugar number was around 470 before he started on camel milk. The last time he checked (i.e., the most recent reading), it had fallen to 292.

"You must drink it absolutely fresh!" Hajibhai says. **"That's when you will get the most out of it!"**



Name: Haji Mubarak Siddiq

Age: 73

Occupation: Retired

Village: Dayapar, Lakhpat

Haji Siddiq has had diabetes for the past 4-5 years. He takes half a tablet of prescribed medication daily for it. He also purchased a traditional medicine called 'amritras' that he takes regularly, but he says that neither have had any effect. He also cut ghee, buffalo milk, potatoes, rice and all sugars out of his diet, but his blood sugar remained high.

About a year and a half after he was diagnosed, Hajibhai was told that camel milk might be effective. He says, "It is difficult to source camel milk in Dayapar, but I buy it whenever I can." As a result, he was unable to provide an approximate quantity of milk that he consumes. When he is able to get it, he boils the milk before drinking it. Although, "If I could get it fresh, there would be no need to heat it up." His blood sugar numbers have reduced and levelled since he began drinking camel milk.



Name: Bhagwan Amba Rabari

Age: 35

Occupation: Maldhari

Village: Kanmer, Rapar

Bhagwanbhai was diagnosed with diabetes recently, and immediately began to drink camel milk as he was aware of its health properties. He has now been drinking camel milk for 3-4 months. He has also been taking medication for the past one month. He says that camel milk has been extremely helpful to him. "My blood sugar reading has gone from around 400 to 200 in the last 4 months," he says. However, as his health is still very poor he has chosen to go with medication as well. Bhagwanbhai drinks 1 litre of camel milk per day, half in the morning and half in the evening.



Name: Havabai Gulu Jat

Age: 75-80

Occupation: Maldhari

Village: Tero, Lakhpat

Havabai was diagnosed with diabetes one and a half years ago. Six months after diagnosis, she attended the annual meeting of the Kachchh Camel Breeders Association, where she heard that camel milk may be effective in controlling diabetes. Her family keeps a herd of 25-30 camels, so she has now been drinking camel milk specifically for her diabetes for a year.

She says the benefits have been tremendous overall. Not only is her diabetes under control, it has helped other small ailments that she has as well. An old wound on her leg that previously was not healing is not completely healed. As the camel milk is working so well for her, she has chosen not to take any other kind of medicine.

**"ALL PREGNANT WOMEN HERE
CRAVE CAMEL MILK"**





Name: Nasibibai Shermamad Jat

Age: 37

Occupation: Maldhari

Village: Dhrangavandh, Lakhpat

There are three people nearby Nasibibai's village who come to buy camel milk from her family's herd of camels. "They all heard it was good for health, so they take it for different illnesses. Two of them have cancer," she says.

At home, Nasibibai and her family collectively consume about 2-3 litres of camel milk everyday. "We drink it plain, have it with rotlo, make tea and kheer...it's really tasty no matter how you use it." What they absolutely do not do is make dahi, ghee or chhaas with camel milk, as camels are considered to be holy.

Nasibibai says that all women in her village drink camel milk during their pregnancies. When she was pregnant herself, she also drank it, but never in large quantities. "Right now, I drink a lot of milk, fewer times a day. When a woman is pregnant, she will drink smaller quantities, but more often." Nasibibai says that camel milk, unlike cow and buffalo milk, is not very heavy and will not give you gas. She says all the women she knows crave it during pregnancy, even if they do not drink it regularly otherwise. "Somebody comes to ask for a glass of milk almost every day," she says.

Camel milk is also drunk as a nutritious supplement after delivery, says Nasibibai. This, in combination with other foods like fresh dates and ghee can help to boost lactation.



CAMEL MILK AND CANCER





Name: Ibrahim Haji Ali Jat

Age: 45

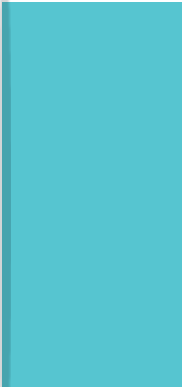
Occupation: Maldhari

Village: Rodasar, Lakhpat

"I've been told that camel milk is good for diabetes and cancer, and I have both!"

For Ibrahimbhai, a sheep and goat herder, diabetes was the first diagnosis he received about 3 years ago. He took medicines for it for two years, and then stopped because he didn't think they were having any effect. Eight months ago, Ibrahimbhai found a large lump on this neck. On going to the doctor, he was diagnosed with cancer. He had heard that camel milk could be effective, so for the past eight months he has been buying it regularly from ShermamadJat in Dhrangavandh.

For one month out of the past eight, Ibrahimbhai mixed camel milk with camel urine and drank that daily. He said he felt the effect immediately, and that his overall health was immediately better. In the following months and at present, Ibrahimbhai drinks about half a kilo of camel milk everyday. He has undergone an operation to have the lump on his neck removed, and he says the camel milk also helps his acidity. **"I gave up other medicines,"** he says. **"Camel milk is doing the work instead."**



Name: Bijal Rabari
Age: 40
Occupation: Maldhari
Village: Kanmer, Rapar

Bijalbhai Rabari is a camel herder who on occasion sells his milk to a man with cancer named Dhanjibhai Oswal. Dhanjibhai is a businessman who lives in Mumbai but comes from Gagodhar village in Rapar. Whenever he comes to visit his home here, he comes to Bijalbhai to buy camel milk. When he was first diagnosed, he drank only camel milk for two months. Later, he switched to drinking a mixture of camel milk and camel urine. He has told me that he feels much better since he started on the camel milk.

While Bijalbhai is unable to comment on specific symptoms, he also adds, “Dhanjibhai didn't have to say he was feeling better. Before he started drinking camel milk, he looked like a sick man. Now, if you look at him you cannot tell that he is ill.”



"IT HELPED CURE HIS TUBERCULOSIS!"





Name: Danabhai Visha Rabari

Age:

Occupation: Camel maldhari

Village: Kanmer, Rapar

Danabhai is a camel herder from Kanmer, in the eastern part of Kachchh. He has drunk camel milk all his life, and has some regular local customers who buy the milk specifically for its nutritional value, and its help in curing a range of illnesses.

“There was a man named Khimabhai Parmar. He was a Rajput farmer from Palashva and he had tuberculosis,” Danabhai recollects. “This was 30 years ago, he has died by now, but back then he stayed with me for a year and drank camel milk regularly. It helped him a lot!”

Another man named Hajabhai Viju Rabari, from Kidiyanagar, had an illness that made it difficult for him to breathe. Hajabhai drank camel milk regularly for two years. He was cured, and the illness never returned.

Camel milk is undervalued by local dairies, which pay about Rs. 18-20 per litre. This is not the case with the people who buy camel milk for its health benefits. In addition to being regular customers, they also pay a better price - about Rs. 30-35/litre.

One can often tell by the taste of the milk which plant the camel has been eating. A tree called Kheejdo (*Prosopis cineraria*) and a creeper locally known as fang (*Riveahypocrateriformis*) make for sweeter tasting milk. Most herders discourage their camels from eating neem, as it makes the milk slightly bitter. However Danabhai says that in his experience, nobody who has

tried camel milk has ever disliked the taste of it.



Name: Sayabanibai Jat
Age: 45
Occupation: Maldhari
Village: Odivandh, Lakhpat

Sayabanibai belongs to the Hajiyani Jat community. Her husband used to keep camels but he sold them some years ago and now only keeps sheep and goats. She has four children – two boys and two girls. One of her sons has had poor health since he was a baby. When he turned twelve years old, he was diagnosed with tuberculosis, and began to have trouble breathing.

“We admitted him to a hospital in Maska for four days,” she says, “but there was no change in his condition.” The family took him home and started the boy on camel milk. To this day, he drinks camel milk three times a day, and he is perfectly healthy now. It has been about five years since his hospital visit. They never returned to see a doctor about his illness. “Where was the need? He is healthy again. Besides, there is no money for hospitals. It is better that he just stays with the camel milk.”

Sayabanibai says that women in her village all drink camel milk. During all of her pregnancies, she drank small quantities of camel milk throughout the day. “You must drink it fresh!” she says, “It ensures that your baby has no problems!”

**WHAT MEDICINE?
I WENT STRAIGHT TO THE CAMELS!**





Name: Ibrahim Lima Jat

Age: 50

Occupation: Maldhari

Village: Odivandh, Lakhpat

Ibrahimbhai keeps a herd of sheep and goats. He was first told that camel milk could help regulate a range of illnesses by an acquaintance about 10 or 12 years ago. When he found out he had high blood pressure. Ibrahimbhai said, "I didn't even think about getting medicines, I just went straight to the camels!" For 2 years, he stayed around the camel herd of RabrakhiyaJat, who lives in nearby Morgar village, drinking camel milk twice a day. In the morning, he would drink milk and eat nothing else. At night, the milk was accompanied by wheat rotlas. He has never had to seek medication for his blood pressure since, and says that it is well under control.

"I also had acidity for some time," he said, and he drank camel milk daily to treat it. "The change was not overnight - it was a gradual reduction," says Ibrahimbhai, but after a year his acidity was entirely gone.



Name: NoorbaiJuma Jat

Age: 50

Occupation: Maldhari

Village: Tero, Lakhpat

Noorbai developed arthritis in her knees about 4-5 years ago. Her family keeps a herd of camels, so she was already aware that it could be helpful for her condition. About 3 years ago, she upped her intake, and now she drinks about 1 litre per day, half in the morning and half in the evening.

She says, "Medicines barely helped me. There was a lot of pain and I couldn't walk. The camel milk has really brought me out of it. I can walk now."



Name: Pariyo Masjid Jat
Age: 55
Occupation: Maldhari
Village: Koravandh, Lakhpat

About one year ago, Pariyobhai found out he had high blood pressure. “The doctor recommended that I take some many medicines, but I decided against it. I only wanted camel milk. For the next few days I drank only camel milk during the day and ate some rotlo at night. After four days I went to the doctor again, and by then my blood pressure was under control.”

Pariyobhai keeps sheep and goats now, but used to keep a herd of 15 camels some years ago. Eventually he sold them, but he knew well the benefits of camel milk. Thus, when he learned about his blood pressure problem, he went straight to a camel breeder that he knows well.

He says, “You know, five or six years ago I got a pain in my left side. I couldn't breathe and I felt very hot and sweated a lot. It lasted for half an hour, then I was alright for two hours, and then it happened again.” This occurred twice in one week. The third time it happened, Pariyobhai left someone with his herd and went to find his friend who has camels. He drank camel milk for 8-10 days and after that, he says that odd pain has never recurred.

When he was younger and kept his own camels, Pariyobhai says he was much much stronger than he is today. At the time, he could easily drink 8 litres of camel milk in a day. But he cautions, “I am a maldhari, and our bodies are different from yours! We can easily drink so much milk and have no problems. If you are not used to it however, so much milk in a week would just give you

diarrhoea.”



DO YOU WANT TO LIVE
OR
DO YOU WANT TO DIE?





Name: Vadubhai Aanda Rabari

Age: 78

Occupation: Maldhari – primarily sheep and goats, and 2-4 camels. Due to his age, he now stays home and his son goes out with the herds.

Village: Jangi, Bhachau

Vadubhai Rabari is a maldhari who keeps a herd of sheep and goats. These days his son takes them to graze as Vadubhai is getting on in years. Vadubhai says,

“When I was younger I used to go to the doctor very often. When I got pneumonia at the age of 40, I went to the government clinic in Limdi village and the doctor said to me, “Do you want to live or do you want to die?” I told him that I wanted to live! He said that if I wanted to live then I should drink camel milk for 6 or 7 months. So I did, and since then, illness has not been an issue for me. I even had five more children after recovering!”

At the time, Vadubhai owned about 300 sheep and goats but only 2 camels. A herder of the FakiraniJat community, with whom the Rabaris have a good relationship, was grazing both the camels, so Vadubhai arranged to have one of the camels brought. For six months he drank two or three bowls of camel milk three times a day, at mealtimes. The only other food to supplement his diet at this time was rotla. As to whether he added anything to the milk before drinking it, Vadubhai said,

“I always drank the milk fresh, there is no need to add anything to it. I don't heat it and I don't add any sugar. It has to be drunk fresh!”

Since getting well, he has not consumed much camel milk, but this is largely because his camels are once again being grazed by the Jats. He now drinks only sheep or goat milk but says that he prefers the taste of camel milk. He has 4 camels now, and about 50 sheep and goats in his herd.

Vadubhai says, "That doctor in Limdi - when he told me to start drinking camel milk he said that if I didn't, I would only live 5 years. If I did, he guaranteed that I would live to see 70!"

Vadhubhai far surpassed the age of 45. He is now 78 years old.



THESE DAYS, I JUST DON'T FALL ILL





Name: Versi Veju Dangar

Age: 56

Occupation: Farmer. He has 40 acres of land and some cows and buffaloes.

Village: Kumbariya, Rapar

When Versibhai was 19 or 20, he developed an intense stomachache that caused his stomach to bloat and distend. At the time, he was visiting his uncle in Jangi, Bhachau. Bhikhabhai Rabari, a local camel herder, heard that Versibhai was ill and in a lot of pain, and suggested that he drink camel milk to treat his illness.

Versibhai never saw a doctor for the illness. He had tried camel milk before; he drank it whenever the camel herders brought their herds through his fields. As a herd of camels rarely remains in one place for a long time, he decided to follow the camels out while they grazed so he would have greater access to the milk. He said of his first few days – “It was summer when I first went out, and I was miserable and tired. But then, a few days in, my health started to improve. In the end, I spent four months with the camels!”

During that time, Versibhai consumed only camel milk and water. He drank the milk fresh – never boiled – and consumed on average two litres per day. At the end of the four months, the rains came and the camels swam out to mangroves for the season. Bhikhabhai offered to lend Versibhai a camel so he could continue drinking milk, but Versibhai declined, and made his way home.

“I got better,” he says. “My stomach pain was gone. Even the pain I had had in my hands and feet for years went away. Nowadays I rarely fall ill. The only major illness I ever had was that stomach pain, and that has never returned since I drank the camel milk.”

Today, he always drinks a little camel milk when it is available. He says, “Everyone will tell you that goats and camels have better milk than any other animal, but camel milk is the best. It is because they don't just eat grass – they eat a wide variety of plants. That is what makes their milk so nutritious.”



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