Camel! A One in All Creatures

Description

One can imagine, how distinctive and special can be the gift of God. The Bedouin gives name ***Ata Allah*** (gift of God), hence considered as precious and matchless. Nevertheless, of its products, camels' physiology, and behavior is specially designed to survive in harsh conditions of its habitat and sustain the livelihood of its keepers in climate change scenario. Camel has all the characteristics which are otherwise scattered in all the other known and useful animals. The following table shows the importance of camel if compared to other livestock species.

Livestock vs camel. Every product of camel is useful, even urine (traditionally used for medicinal conditions like the ear infection, water belly and some kinds of dermatitis) and dung are valuable.Camels' Manure~From Waste to a Worthwhile Farming Agent

camel pic Image not found or type unknown The long bones of camel are very attractive for nomads' women and use for making jewelry. The camel rearing communities have very firm links with camel culture and consider this special creature as part and parcel of their heritage and culture.

Camel is full of qualities and strange abilities. The author has tried to compile some of the special attributes known to humankind so for. The attributes are grouped in main subjects and given in numeric order.

Potential and Availability of Camel Milk (CM)

- Camel is the only livestock species which was originally domesticated for milk; God gifted the camel to Prophet Saleh (PBUH) for milk only, almost 3500 BC.
- Camel is the only animal of dry lands which can produce up to 40-liter milk per day (some specimens are recorded) in ordinary grazing conditions. Such high yielding specimens are found in Sub-continent, Arabian Peninsula, Africa and other parts of the dromedary camels' habitats.
- It is the most efficient animal in milk production on per unit feed/water consumption basis, i.e. a cow in rangelands conditions needs 9.1 kg of dry matter feed to produce one liter of milk, while camel produces one liter of milk by consuming only 1.9 kg of dry matter feed in the same conditions.
- The lengthy days without water couldn't depress the camel's milk quantity or quality. The milk becomes even more watery during the period of water scarcity to fulfill the water requirements of thirsty suckling calves.
- Camels' lactation ranges from 9 to 18 month and produces up to 12,000 liters/lactation.

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CM is Natural Pharmacy

1. *A Superfood*

   A gift of nature and gold of desert, the camel milk (CM) is miraculously proving as a superfood. Because of the appreciable level and unique combination of nutrients (minerals, vitamins, protein, and fatty acids etc.). CM has medicinal properties covering a wide range of ailments like autoimmune diseases, allergies, asthma, rashes, diabetes, liver disorders, rheumatism, inflammatory conditions, piles, urethral irritation, infectious diseases, stress/depression, peptic ulcers and even cancer. The nomads/Bedouins have a long history of

experience while healing such diseases with the CM. The manifolds enriched levels of minerals (potassium, magnesium, iron, copper, manganese, sodium and zinc) than cow milk, making it a real superfood.

2. An Attraction for Mature people

Camel milk is used as the aphrodisiac, especially in the stressful conditions of the dry hot weather. The appealing level of Nanobodies in CM making it very special tonic for making the mood. As well as CM is a nervine tonic and helps in good eyesight. The pastoral people depending on camel milk rarely get weak eyesight.

3. A Beauty Tonic

The content of niacin (Vitamin B3) in camel milk is remarkably higher than in cow milk. Vitamin B3 supports the function of the digestive system, skin, and nerves, and improves circulation making it a beauty and health tonic. Camel milk contains five times more vitamin C compared to cow milk. Vitamin C is

anti-infectious and is very important for human health, especially in dry and deserted areas. Displaying DSC_0133.jpg

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4. Full Stop to Diabetes

Camel milk contains insulin-like protein and is therefore used to treat Diabetes mellitus. Such insulin is capsulated in fats molecules which cannot be denatured (does not coagulate easily because of fat coating) in the acidic medium of a stomach. Such property of Camel milk enhances protein absorption.A study of the anti-diabetic agents of camel milk

5. Ensures Super immune system

The wonderful protein of CM (protective amino acids and immunoglobulin) is a booster of the immune system and nutritional advantages for brain development. CM contains 25-30 times as much lactoferrin as

cow milk. Lactoferrin is a fairly recently discovered iron-containing protein that has been shown to have antiviral, antifungal, anti-inflammatory, analgesic and anti-carcinogenic effects. Therefore, a combination of lactoferrin (bactericidal and iron-binding properties) and lysozyme (an enzyme which catalyzes the destruction of the cell walls of certain bacteria) ensure super immune system. A recent study revealed that camel milk has anti-genotoxic (prevent toxification in gene and prevent mutation) and anti-cytotoxic (prevent toxification in the cell). The Nanobodies play an incredible role in this regard.Superfood (Camel Milk) can Beat the Challenge of Superbug (Bacterial Resistance to Antibiotics)

6. A Dedication to the children

Children diagnosed with *autism spectrum disorder (ASD)* responding positively after therapy that included camel milk. The low quantity of beta casein and the lack of beta-lactoglobulin are linked to the hypo-allergic effects of camel milk. Because of the low lactose content, it does not cause lactose intolerance problem in infants. CM has 100 times more D-Lactate as compared to cow milk. D-Lactate is very health promising contrary to L-lactate which is toxic and causes an allergy found in cows' milk. Camel milk can be the best replacement of infant food after the mother's breast because of its child-friendly lactose.Camels' Milk Miracle for Autistic Patients

Image result for camel milk miracle for autistic patients

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Christina Adam is a living story of treating her autistic son with camel milk

7. The Bucket of Healthy Fatty Acids

Camels' milk fat contains the much higher concentration of long-chained fatty acids (C 14 – C 18) than short-chained fatty acids and is, therefore, healthier. The Omega 3 and Conjugated Linoleic Acid (CLA) is even more important among the other fatty acids. CM has 3 times more Omega 3 and CLA than naturally

grazing cows' milk. Such compounds are attracting young generations to be kept healthy and attractive. Easy Understandable But Important Features of Camel Milk

8. Camel Milk Inhibits Colon Cancer Cells' Growth

A study revealed that camel milk lactoferrin showed very remarkable results in inhibition of the growth of the colon cell cancer (HCT-116). Lactoferrin has great potential and works as a magic. Camel Milk Inhibits Growth of Colon Cancer Cells

Camel Meat is Special

1. Camel meat is healthier as they produce carcasses with less fat as well as having fewer levels of cholesterol in fat than other meat animals.
2. Camel meat is also relatively high in polyunsaturated fatty acid in comparison to beef. This is an important factor in reducing the risk of cardiovascular disease.
3. Camel meat is also used for remedial purposes for diseases such as hyperacidity, hypertension, pneumonia and respiratory disease as well as an aphrodisiac.
4. Camels reach live weights of about 650 kg at 7–8 years of age and produce carcass weights ranging from 125 to 400 kg with dressing-out percentage values from 55% to 70%. Camel carcasses contain about 57% muscle, 26% bone and 17% fat.
5. Camel lean meat contains about 77% water, 19% protein, 2.8% fat, and 1.2% ash with a small amount of intramuscular fat, which renders it a healthy food for humans.
6. Camel meat has been described as raspberry red to dark brown in color and the fat of the camel meat is white.
7. The amino acid and mineral contents of camel meat are often higher than beef, probably due to lower intramuscular fat levels.
8. Camel meat has been processed into burgers, patties, sausages and shawarma to add value.
9. Because of its low cholesterol content, Australia's National Heart Foundation has put camel meat on its list of highly recommended food items. "Camburgers" and "camfurters" are among the products that have been produced by a team of scientists around Prof. Farah at the Swiss Federal Institute of Technology.

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A tribal Baloch is a traditional rider.

Camel has Great Ride and Unique Training Ability

1. The ears are small but have a great power of hearing. Camel can hear and understand the voice of its header from a long distance.
2. The camels are regarded as the most intelligent animals and can find out their way in the desert when there are no signs of the road.
3. Camels can travel many days without feed or water. In the kind of terrain, I like to ride in, this is a very important factor.
4. A traveler can continue the journey without bothering too much about the feed and water. Camel eats each and everything when tired and hungry.
5. The long muscular legs allow camels to cover great distances, they walk up to 40 km per day with 200 to 300 kg of baggage.
6. Camel is better as riding animal than the horse. They are quieter and gentler than horses.
7. Camels seem smarter than horses about getting themselves out of a precarious situation. If a horse gets tangled up in a rope, it may struggle violently and get rope burns (or worse). A tangled up camel will, after briefly testing the bonds, sit quietly and figure out what to do next.
8. Camels can carry more weight than horses. Also, a well-designed camel saddle has more room to carry whatever extra gear you are packing than a horse saddle has.
9. Riding a camel is quiet and peaceful (that is, once the camel is well trained enough that it no longer grumbles along the way). Camel’s slipper-like feet make hardly any noise. Without the clip-clop of hooves, you can hear the wind sighing in the brush, the rustle of autumn leaves, a coyote howl in the distance on a moonlight ride.

10. The camel gets in high spirits to the tune of music and songs and it walks faster in spite of being tired.
11. The camels are the most disciplined and obedient creatures. They and can be ordered to sit or stand again and again and can walk in a row silently behind the leading man, woman or even a child.
12. The camel is a unique beast of burden, which is loaded in sitting position and gets up with a jerk of its long neck.
13. Camels do not need to be shod. The cost of shoeing horses can really add up! Furthermore, camels don't usually colic like horses do, although they occasionally bloat.
14. There is a certain pride in riding a well-trained camel. It is a sign of prestige for camel owner to ride and travel on a mehari camel.

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Going back to the mountains from a camel gathering of socio-economic interest

Disease Resistance Trait of Camel Making its Products Residue Free

1. Camel is resistant to ticks diseases. A load of more than 100 ticks on camel body cannot affect camel health and production.
2. White Kohi camel is called as Syed by its herders as; having high potential to resist fly bite disease (Trypanosomiasis) The disease register of the camel is quite short (very few fatal diseases are reported in camel).
3. Camel is resistant to many notorious diseases like foot and mouth disease, mad cow disease (BSE) and Brucellosis etc.

4. No clinical FMD is reported in camels from any part of the world.
5. MERS has nothing with the camel as the vector but a tool of misinformation and propaganda.

Camel's Unique Physiology

The Browsing Beast

1. *The camel has a large mouth, with 34 sharp teeth. They enable the animal to eat rough thorny bushes without damaging the lining of its mouth.*
2. *Camel can eat everything (bark, dates seed, salty mud, and even paper) when there is the scarcity of feed, while in good feeding conditions, it does prefer protein rich diet.*
3. *The long flexible neck and legs save it from ground heat and give an easy approach to tall trees for browsing. Camel can browse at 3.5 m above the ground.*
4. The upper lip of the mouth has a cut in the middle. The flaps of the upper lip help in catching the twigs (thin shoots of the trees and bushes).
5. *The formation of the mouth is such that there are long conical papillae on the inside of the cheeks directed backward and the camel can browse at the thorny plants without any harm.*
6. *The canine teeth help the camel to take into grip the twigs. Such kind of teeth is not found in other ruminants.*
7. *The soft palate is developed and comes out on one side of the mouth like a red hanging bladder. This happens usually in rutting (breeding) seasons.*

Image result for browsing camels acacia raziq tree

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A strong Kohi camel in Suleiman Mountainous Region of Pakistan

Beast of Dryness and Water Economy

1. Camel has a well-developed power to smell especially water sources. They can smell water 50 miles away by smelling ***geosmin*** which is a fragrance produced by streptomyces species growing in the dumped soil.
2. Under very hot conditions, the camel may drink only every 8-10 days and loose up to 30% of its live body weight through dehydration. Other animals die at 10% live body loss through dehydration.
3. Camel urinates less than 1 liter of urine per day in hot summer days. In the period of water scarcity, camel urinates a semi-liquid substance like syrup.
4. Oval shape erythrocytes (instead of round in other animals) expand up to 200% their normal size as camels drink rapidly an amount of 190 liters of water in 10-15 minutes.
5. Camel can store water in its all body compartments (intracellular, extracellular, blood and digestive tract etc). Every organ has the extraordinary capacity to store water.
6. They can live without water for 3 days in summer and 7 days in winter. However, there are some examples of this animal remaining without water for 20 to 40 days. After 40 days the camel goes blind due to

excessive dehydration.

7. A camel can vary body temperature up to 6.7 Cº, having a great endurance power to stand the scorching heat. Camel even absorbs heat in the day time by increasing body temperature and dissipates it in the cool night, this way the camel conserves water.
8. The well-developed hump is full of fat that serves as a store of water and food at the time of starvation. The fat of hump gets dissolved gradually during starvation and collects again at the time the camel gets adequate water and feed.

Image result for camel hardiness in dry and harsh ecosystems raziq

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The Kharani breed of camel in Kharan deserted steepe in Balochistan

Prince of Sand and Ship of the Desert

1. The flat pads of the feet are horny and cushioned and help the camel to walk on the sand without making any sound while the feet of other animals sink into the sand. Due to this quality, the camel has been given the name as the "***ship of the desert***".
2. Camel's feet are soft and friendly to vegetation. The hooves of the cow or small ruminants are more aggressive to the soil and contribute more often to the degradation of the pastures in a case of overgrazing.
3. The chest pad helps the animal to take rest on it while sitting on the ground. The rest of the body is saved from the concussion against the ground. There are other pads at the knee and half joint and in front of the joint of thighs. These prevent the limbs from the concussion against the ground.
4. The spines of all vertebrates of the thoracic region are long & high and make the hump, which is more

developed than all other Brahman cattle. Very special designed to be a useful animal in the desert.

5. Camel has prominent eyes with a wide range of vision. They are protected by an overhanging upper lid with long eyelashes, which protect the eyeballs from powerful rays of the sun.
6. The upper lip of the mouth has a cut in the middle enable the nostrils to cover to keep out the sand and dust at the time of dust storms.

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The genius camel are enjoying the sand and the sun shine in winter. A snap from Arabian desert in UAE

Masculine Vulnerability-Paradox is Exceptional in Camels

1. Bull is the main symbol of reproductive efficiency and very active in breeding season (camel is seasonal

breeder and usually male shows sign of rut)

2. The Bull urinates in gush while standing and urine goes back in between the hind legs and falls on the ground. Its refresh the femoral vein and decrease the heart temperature for water economy. This enables the animal to save itself from slipping in its urine.
3. Another typical sign is a notably and profuse secretion of the poll glands of the neck, which contains androgen concentration similar to blood
4. The soft palate is filled with the air and a big red ball (dulla) is pumped out to attract the female, a very special behavior of camel bull.

bull

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Camel is still Hiding from the Eyes of Policy Makers

Besides all its attributes, camel is always considered as the beast of remotes and neglected among the policy makers. Its share is never praised and no visible effort has been done for its development. A camel can be a good tool in the global environmental changing scenario and food insecurity situation to provide food and livelihood to million of the people in the drylands of the world. Camels are very much under threat and up to 25 % of the camels are vanished in South and Central Asia, India. This decline is mainly because of the faulty national and regional policies resulting in restriction of historical routes and grazing lands. In recent years due to climate change, many challenging health issues are also causing threats to camels' survival as this field is very dark and neglected. Only in the year 2010, thousands of camels were dead because of a fatal respiratory disease in Afghanistan, Pakistan, and India. This fatal disease comes time to time to eliminate numerous camel without being noticed by the health authorities of the concerned regions. Besides of many cries by the author and other friends, no positive response was attracted so far. A silver lining in the clouds is the organization of an advocacy group (***Camels4Life***) of like-minded people to work for the cause of camels' keepers and to give them the proper place at a policy level and development projects application. I hereby appeal the national governments and international bodies like FAO, IFAD and other organization to give proper place to a camel in R&D sector of the agriculture.Al Ain doctor sees potential in camels beyond their milk

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