

Popular Article

Advantages of Goat Milk

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Introduction

The first animal that humans domesticated for milk production was a goat. The composition of milk differs between goats and cows due to certain physiological and biochemical variations. Numerous characteristics of goat milk make it a much better option than cow milk. Babies who are allergic to cow milk may be able to consume goat milk almost without any negative consequences. It is difficult to digest cow milk. Compared to cow milk, goat milk has less lactose. Thus, goat milk can be used as a premium raw material to make foods for young children and the elderly. To disguise the considerable contribution and advantages of goat milk for human consumption over cow milk, the dairy industry in India, nevertheless, spends large sums of money on marketing or high-profile advertising campaigns. Therapeutic advantages include easing irritable bowel syndrome symptoms and lowering asthma and eczema symptoms. Goat milk oligosaccharides can function as prebiotics, which support the maintenance of GIT health by promoting the growth of healthy gut bacteria and inhibiting the growth of pathogenic bacteria.

In comparison to cow milk, goat milk contains much more vitamin B, vitamin A, and niacin. Iron, calcium, phosphorus, and zinc are more bioavailable when consumed in goat milk. Goat milk has a better buffering capacity due to phosphorus, which makes it useful for treating stomach ulcers. The laxative effects could be related to the high chloride concentration. Goat milk contains a large quantity of potassium, which causes it to respond in an alkaline manner in the body as opposed to cow milk, which lacks potassium and causes it to react in an acidic manner. Goat milk has more monounsaturated, polyunsaturated, and medium-chain triglycerides than cow milk, all of which are proven to be good for human health, including in cardiovascular issues. Compared to cow's milk, goat's milk contains more important fatty acids including linoleic and arachidonic acid.

Even though goat milk has a higher percentage of medium chain triglycerides (36 versus 21 percent), which inhibit the production of endogenous cholesterol, consumption of goat milk lowers overall cholesterol levels and LDL fraction. Goat milk is mostly composed of capric, caprylic, and caproic acids. As a result, goat is their name. Due to their distinct metabolic capacity to provide direct energy rather than being stored in adipose tissues, these fatty acids have been used in the treatment of a variety of clinical disorders, including malabsorption syndromes, infant malnutrition, hyperlipoproteinemia, intestinal resection, cystic fibrosis, premature infant feeding, non-thriftiness of children, chyluria, steatorrhea, epilepsy, coronary by-pass, and gallstones.

Hypoallergenic

Due to its 20 distinct proteins, cow milk allergy is the most prevalent allergic reaction in children ages 0 to 3. Alpha s1 caesins found in cow milk and lactoglobulins are the two most common proteins to which people are allergic. Anaphylactic shock, diarrhoea, vomiting, and skin rashes are examples of mild side effects. Goat milk is significantly less allergenic since it includes less alpha-1-casein and a similar level of lactoglobulins (lactoglobulins are not present in human milk). Because goat's milk contains more soluble proteins than cow's milk does, it has a lower casein to protein ratio, similar to that of human milk. Due to this special characteristic, when milk is digested by rennin in a baby's stomach, it turns into a soft curd. Casein and whey protein genetic polymorphisms make cow milk allergy more complicated.

Naturally homogenized

Cream and whey naturally separate from cow milk due to the presence of big fat globules and agglutinins. The process of homogenization involves applying intense pressure to a small hole in fluid milk, which breaks down the cell wall and fat globules, allowing the milk and cream to remain homogeneous and thoroughly combined. The issue with this homogenization is that it causes the production of a superoxide free radical known as Xanthine Oxidase once the cell wall of the fat globule has been ruptured.

Free radicals harm cells and alter DNA, which frequently results in cancer. Goat's milk can remain naturally homogenized because it has fewer tiny fat globules and no agglutinin. This characteristic of goat milk can be considered to eliminate the risks connected with the homogenization process.

Easily digestible

Goat milk digests in 30 minutes compared to 2 hours for cow milk, which is more difficult to digest. Less curd yield, a longer rennet coagulation time, greater heat liability, and weaker curd firmness are characteristics of goat milk with the genetic trait of low or no a-s-1-casein, but rather

with α -s-2-casein, which may also account for the advantages in digestibility in the human digestive tract. Smaller fat globules in goat milk with high levels of medium-chain fatty acids enable faster digestion because each fatty acid has a bigger surface-to-volume ratio during digestion. Compared to cow milk, which is more easily and entirely edible, the proteins in goat milk denature in the stomach and produce a considerably softer curd.

Lactose intolerance resistant property

Lactose, a kind of milk sugar, is a significant source of carbohydrates in milk. Lactase is an enzyme that breaks down lactose into glucose and galactose, and recent research have shown that a sizable section of the population lacks this enzyme. Lactose intolerance is a condition brought on by this deficit. Goat milk is easier to digest for those who are lactose intolerant because it contains 10% less lactose than cow milk.

Conclusion

Goats are an essential part of the livestock sector because they can survive in difficult conditions, making them appropriate for small-scale, landless producers. Goats make a significant contribution to the production of milk and milk products, which has significant economic and health benefits in rural areas. More calcium, magnesium, and phosphorus are found in goat milk than in cow or human milk. Infants, the elderly, and those recovering from illness should drink goat milk. Goat milk and its products are reportedly very well received by consumers. In terms of research and development, the goat has remained unappreciated. So, more focus should be made on full utilization of goats to obtain the most benefits. Goat milk is beneficial for infants and developing children, but it should be fortified with nutrients like folic acid because it is lacking in goat milk. Goat milk "may be regarded to be a nutraceutical health drink," the researchers conclude. For people who have an allergy or sensitivity to the proteins in cow's milk, goat milk is a good alternative. They should also choose goat milk if they have anemia, osteoporosis, or malabsorption problems. Due to its functional and nutraceutical benefits, goat milk has recently attracted significant interest and seen an upsurge in demand.