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ISSN: 2394-1227 (Online)**Original Article****Importance of different species of milk, such as goat, sheep, camel, donkey, buffalo, and cattle milk****Dr. Rajesh Kumar Yadav<sup>\*1</sup>, Dr. Navav Singh<sup>2</sup>, Vipin Chandra<sup>3</sup>, Dr. Archana Fozdar<sup>1</sup> and Dr. Mahima Dilawar<sup>1</sup>**<sup>1</sup>PG Scholar, Department of Livestock Production Management<sup>2</sup>Assistant Professor, Department of Livestock Production Management<sup>3</sup>PhD Scholars, Department of Livestock Production Management

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**Abstract**

Mammary glands in female animals create liquid called milk, which is used to nurture the young for a short while after birth. Humans also rely on the milk of domesticated animals as a major source of nutrition, either raw or processed into a variety of dairy products like cheese and butter. One of the main sources of income for India's rural economy is milk production. The revenue from milk and milk products, insurance against drafts, emergency financial needs, household nourishment, fuel for cooking, manure for crops, and draft power for farming are all significant contributors to the subsistence farming livelihood of resource-poor farmers.

**Keywords:** Milk, Species wise utility of milk**Introduction**

In 2019, India boasted the biggest dairy herd in the world, with over 303.76 million cows. In 2022–2023, the nation will produce 230.58 million metric tons of milk. In terms of overall milk output, India is the world's top producer. FAO is the source. The amount of milk produced in 2021–2022 grew by 3.83% over the previous year. There are 459 grams of milk available each person each day. For exotic/crossbred animals, the average daily yield is 8.55 kg, whereas for native/nondescript animals, it is 3.44 kg. When it comes to milk production and consumption, India leads the world. The majority of milk is eaten locally, with a tiny amount also being exported. Native buffaloes account for 31.94% of the total milk output, while crossbred buffaloes account for 29.81%.

**Goat milk**

For a number of reasons, goat milk is a good and significant substitute for cow's milk. Goat milk is an excellent nutritional source, particularly in areas where cow's milk is not widely available or eaten (Alkaisy, Q. H. et al., 2023). First of all, those with lactose intolerance or other dairy sensitivities frequently find it simpler to digest. This makes it a good choice for anyone who might have trouble consuming cow's milk. Compared to cow's milk, goat milk has a distinct nutritional profile since it includes greater concentrations of certain important elements like calcium, potassium, and vitamin A. It may also be simpler for certain people to handle since it has a different protein structure and lower quantities of lactose. In addition, goat milk is a flexible component that may be used to make cheese, yogurt, and ice cream, among other dairy products. It is a well-liked option for culinary applications because to its unique flavor and creamy texture. Goat milk production has the potential to benefit rural communities and small-scale farmers economically. Goat milk's accessibility and usefulness provide people all over the world significant dietary alternatives, health advantages, and economic prospects.

**Sheep milk**

Although it is not as popular as cow's milk, sheep milk is nonetheless a useful dairy product with its own special applications and advantages. Sheep's milk's bioactive ingredients have anticancer qualities as well. Because it contains orotic acid and CLA, sheep's milk helps to prevent cancer, Alzheimer's disease, and type 2 diabetes. Rich in bioactive compounds, sheep's milk can be utilized as a medicinal supplement to help the body fight against neurological and cancerous disorders (Flis, Z., and Molik, E., 2021). The nutritious content of sheep's milk is one of the main arguments in favor of its significance. It is a richer source of calcium, protein, and other vital elements than cow's milk because it has greater quantities of milk solids and lipids. Sheep milk is a healthy option for anyone trying to increase their consumption of these vital nutrients since it also has greater concentrations of several vitamins and minerals, such as zinc, vitamin B12, and C. In addition, some individuals find that sheep's milk is easier to digest than cow's milk, which makes it a good substitute for persons who have lactose intolerance or other digestive problems. Its distinct qualities and makeup make it a great choice for people who want a dairy product that is easy on their stomachs. Sheep's milk has many nutritional benefits, but it's also quite adaptable in the kitchen. It may be used to create a wide range of dairy products, each with a unique flavor and texture, including ice cream, yogurt, and cheese. Chefs and food fans alike choose sheep milk cheeses because of their rich, nuanced tastes, which are highly valued.

**Camel milk**

Donkey's milk is prized for its high protein and low fat content, whereas camel's milk is recognized for its high vitamin and mineral content. Health-promoting compounds including zinc, lactoferrin, bioactive peptides, and mono- and polyunsaturated fatty acids are abundant in camel's milk. According to Swelum et al. (2021), these chemicals may be useful in treating a number of significant human ailments, including jaundice, gastrointestinal disorders, asthma, and TB. Low in sugar, cholesterol, and high in minerals (sodium, potassium, iron, copper, zinc, and magnesium), camel milk also has a high vitamin C content and protective proteins such as immunoglobulins, lactoferrin, lactoperoxidase, and lysozyme. Camel milk has been gaining popularity in recent years due to its numerous health benefits and unique nutritional profile. This lesser-known dairy alternative has been consumed for centuries in various parts of the world, particularly in regions where camels are prevalent, such as the Middle East, Africa, and parts of Asia. Making it a good choice for those who have a lactose intolerance. Moreover, it is also thought that camel milk has therapeutic qualities. Studies have indicated that certain proteins and antibodies found in camel milk may possess antibacterial and immune-stimulating properties. According to certain research, people with autoimmune diseases including diabetes and rheumatoid arthritis may benefit from camel milk. Apart from its health advantages, camel milk is also appreciated for its culinary applications. Like cow's milk, it may be used in baking and cooking or drunk as a beverage. Some people also like cheese and yogurt made from camel milk.

**Donkey milk**

The possible health advantages of donkey milk are a major factor in its rising popularity. It is high in protein, vitamins, and minerals including calcium, potassium, and magnesium, much like camel milk. Donkey milk is a good alternative for people who are lactose intolerant since it has less lactose than cow's milk. Donkey milk is also well-known for having high concentrations of lysozyme, an enzyme with antibacterial qualities that may strengthen immunity. The milk output of donkeys is said to vary between 3 to 12 milliliters per kilogram of body weight (Miraglia et al., 2020).

Although not as well-known as camel milk, donkey milk is nonetheless a valuable dairy substitute due to its many culinary applications and health advantages. Many societies have been using donkey milk for millennia, especially in portions of Europe and Asia. Due to its distinctive nutritional profile, donkey milk is currently becoming more and more well-known.

**Buffalo milk**

Buffalo milk is a very valued dairy product with its own special applications and advantages, even though it is not as popular as cow's milk. Buffalo milk is a great complement to many people's diets since, like cow's milk, it is full of vital elements including vitamins, calcium, and protein. Buffalo milk's nutritional content is one of the main justifications for its significance. Compared to cow's milk, it has higher concentrations of fat, protein, and minerals, making it a

richer source of these vital nutrients. Buffalo milk is a healthy option for anyone trying to increase their intake of this crucial mineral because it also has greater calcium content. Buffalo milk is a popular option for creating dairy products like cheese, butter, and yogurt because of its rich flavor and creamy texture. Buffalo milk products are a favorite among chefs and food fans because of its rich, decadent flavor, which is highly valued. Buffalo milk has many nutritional benefits, but it's especially helpful for those who are lactose intolerant. For people who are lactose intolerant, it is simpler to digest since it has less lactose than cow's milk.

### **Cattle milk**

Cow's milk, sometimes referred to as cattle milk, is one of the most popular and adaptable dairy products in the world. It is a vital component of many people's diets since it is a rich source of vital minerals including calcium, protein, and vitamin D. Cattle milk's nutritional content is one of the main arguments in favor of its significance. Because it contains each of the nine necessary amino acids that the body need, it offers a complete supply of protein. Furthermore, the main source of calcium—which is essential for the growth and health of bones—is cow's milk. It also includes other essential minerals and vitamins including potassium, phosphorus, and vitamin D. Cattle milk is an essential component of children's meals since it is good for general growth and development as well as bone health. Health experts frequently advise it as a crucial part of a balanced diet for developing children. Apart from its nutritional significance, cow's milk has a vast range of culinary uses. It may be made into a variety of dairy products, including cheese, yogurt, and butter, as well as utilized as a beverage and in baking and cooking. It is a well-liked component in many different recipes and cuisines because of its rich and creamy texture.

### **Conclusion**

The population can profit from the availability of many species of milk since it offers dietary alternatives, a variety of nutritional advantages, and support for regional economies and cultural customs.

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