

**COMPARATIVE ANALYSIS AND SEASONAL USES OF DIFFERENT ANIMAL SOURCES OF MILK GIVEN IN VARIOUS AYURVEDA TEXTS****Rana Shivani<sup>1</sup>, Pathania Deepak<sup>2</sup>, Jagota Ankush<sup>3</sup>**<sup>1</sup>MD Scholar Dept. of *Swasthavritta*,<sup>2</sup>MD Scholar Dept. of *Kaumarbhritya*,<sup>3</sup>Lecturer Dept. of *Swasthavritta*,

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**Article Received:** 02/09/2020 - **Peer Reviewed:** 26/09/2020 - **Accepted for Publication:** 27/09/2020**ABSTRACT**

*Ayurveda* is one of the most ancient medical sciences of the world. It is more life & health oriented. It emphasizes much more on diet & regimen along with medicine. Milk is one of the animal origins *Dravya* which is important for people of all age groups as a dietary supplement & can be taken every day. Milk is beneficial for healthy individuals. The one who consumes milk doesn't get the disease. Hence there is no better *Vrishya Dravya* (Aphrodisiac) and no better *Jeevaniya Dravya* (life prolonger) than milk. Milk is considered as *Rasayana* (Rejuvenative). Seasonal regimen has been described in our texts. The prime principle of *Ayurvedic* system of medicine is preventive aspect, can be achieved by change in diet & practices in response to change in climatic condition. In *Ayurveda* texts, milk of eight different animals i.e. milk of cow, buffalo, goat, camel, human, sheep, elephant & single hoofed animals like horse, donkey etc. has been described with a set of different properties. Milk of cow, buffalo, goat & sheep is easily available in our area. The objective of this is to establish the use of different milk in different seasons based on the properties described in our *Ayurveda* texts. An attempt has been made for use of cow milk, buffalo milk, goat milk & sheep milk according to season through this paper.

**Keywords:** Milk, Season, Rasayana.

## INTRODUCTION

*Ayurveda* being the science of life, propagates the gift of nature in maintaining healthy & happy living. It emphasizes much more on diet & regimen along with medicine. *Trigunatmic* diet has been described in our classics i.e. *Satvika*, *Rajashik* & *Tamashik*. Among these *Satvika* diet is conducive to higher thought & deep understanding, as well as to a body free from disease. Milk & Milk products belong to *Satvika foods* that are pure, essential, nourishing, appealing & succulent. Milk enhances the strength of body immediately, strengthens the senses, and provides intelligence, longevity, health /soundness & happiness and it is considered as main Rasayana.<sup>[1]</sup> In *Ayurveda* texts it is described that milk should be taken every day.<sup>[2]</sup> Milk is beneficial for both physical as well as mental health. It also acts as memory booster. Milk increases the *Oja* in our body. According to *Ayurveda*, *Oja* is regarded to be the purest part of the seven *Dhatus* and is referred to as *Bala* by *Acharya Sushruta*, the body's natural immunity. Our physical, mental & spiritual strength is totally dependent on *Oja*. In *Ayurveda* it is known as *Vyadhikshamata* i.e. immunity. There is no better *Vrishya Dravya* (Aphrodisiac) and no better *Jeevaniya Dravya* (life prolonger) than milk.<sup>[3]</sup> In *Ayurvedic* texts, milk of eight different animals i.e. milk of cow, buffalo, goat, sheep, camel, human, elephant & single hooved animals like horse, donkey etc. has been described with a set of different properties. In general all types of milk is *Madhura* (Sweet in taste), *Snigdha* (Demulcent), *Vata – Pittahara* (Subsides *Vata* and *Pitta Doshas*), *Sara* (Laxative), *Sadya Sukrakara* (Increases semen), *Sheeta* (Cold in potency), *Satmya* (Suitable to all), *Jeevana* (life promoting), *Brimhana* (Weight promoting), *Balya* (Strengtheners), *Medhya* (Brain tonic), *Vajikara* (Aphrodisiac), *Vyasthapana* (Anti-aging), *Ayushya* (longevity), *Sandhanakara* (Heals the fractures), *Rasayana* (Tissue vitalizer)<sup>[4]</sup>. In our area cow, goat, buffalo and sheep milk is easily available. *Acharaya Sushruta* has been mentioned that raw milk is usually *Abhishyandi* and heavy to digest but after boiling is becomes light to

digest and non *Abhishyandi*. So, all the milk should be used after boiling, except human milk.<sup>[5]</sup> Milk is described as the nearly perfect food of the nature for all age groups. It is also called best & complete food. Milk is a very wholesome food, because it contains almost all nutrients, except Iron & Vitamin C. It is a richest source of Calcium. It is easily digestible & very essential for the young for their growth & development<sup>[6]</sup>. The prime principle of *Ayurvedic* system of medicine is preventive aspect, can be achieved by change in diet & practices in response to change in climatic condition. The concept of “*Yat Pinde Tat Brahmande*” (whatever there is in the environment is also there is in the human body) was applied, which led to appreciating changes in the human body according to seasons and regimens were made accordingly. Different seasons have been described in our texts. Each has their own characteristics. For prevention of disease & promotion of health, diet should be according to the season.

### Aim and Objectives

1. To study the description of cow, buffalo, goat and sheep milk in *Ayurvedic* classics elaborately.
2. To study the nutritional value of cow, buffalo, goat and sheep milk.
3. To establish the use of different milk in different seasons.

**Material & Methods:** The different properties of Cow, Buffalo, Goat and Sheep milk are mentioned in our texts. According to *Acharya Sushruta*, milk of **Go**, **Mahishi** & **Aavi** are *Madhura* (sweet) in taste, *Guru* (heavy in digestion), *Snigdha* (demulcent) & these are *Sheeta* (cold in potency) except *Aavi* which is *Ushna* (Hot). Among these *Mahishi dugdha* is *Ati Guru*, *Ati Snigdha*. Whereas **Aja Dugdha** is *Madhura* (sweet) and *Laghu* (light).<sup>[7]</sup>

According to *Acharya Charaka*, **Godugdha** is *Madhura* (Sweet) in taste, *Sheeta Virya* (Hot) in potency, *Mrudu* (Softening the tissues), *Snigdha* (Demulcent), *Bahala* (Thick), *Shlakshna* (Smooth), *Pichila* (Sticky), *Guru* (Heavy), *Manda* (Dull), *Prasan-*

na (Causes enthusiasm). Acts as *Rasayana* (Vitalizer) & *Oja Vruddhikar* (Increases essence of all the seven *Dhatus*; *Rasa-Rakta-Mansa-Meda-Asthi-Majja-Shukra*). The *Aja Dugdha* is *Kashaya* (Astringent), *Madhura* (Sweet) in taste, *Sheeta* (Cold) in potency & *Laghu* (Light), *Aavik Dugdha* is *Ushna* (Hot) in potency & the *Mahishi Dugdha* is more *Guru* (Heavy) & *Sheeta* (Cold) in potency than *Godugdha*.<sup>[8]</sup>

*Godugdha* is *Madhura* (Sweet in taste), *Madhura Vipaka* (Sweet - post digestive effect), It is *Guru* (Heavy), *Sheetala* (Cooling), *Stanyakrit* (Promotes

breast milk), *Snigdha* (Demulcent), subsides *Vata-Pitta* and *Rakta*. The *Avika Dugdha* is *Lavana* (Salty), *Swadu* (Palatable), *Snigdha* (Demulcent), *Ushna* (Hot in potency), increase *Kapha*, *Pitta* & *Guru* (Heavy). The *Mahishi Dugdha* is *Maha-Abhishyandi* (Causes blockage of the channels), *Madhura* (Sweet) in taste, *Sheetala* (Cooling), *Snigdha* (Demulcent) & *Guru* (Heavy). The *Aja dugdha* is *Madhura* (Sweet), *Kashaya* (Astringent) in taste, *Laghu* (Light), *Sheeta Virya* (Cold in potency) & *Sarvarogashaka* cure all the diseases.<sup>[9]</sup>

**Table 1:** Showing properties of different milk as per *Ayurvedic* texts

	<i>Go Dugdha</i>	<i>Mahishi Dugdha</i>	<i>Aja Dugdha</i>	<i>Aavi Dugdha</i>
<b>Rasa</b>	<i>Madhura</i>	<i>Madhura</i>	<i>Kashaya, Madhura</i>	<i>Madhura</i> *
<b>Guna</b>	<i>Guru, Snigdha</i>	<i>Ati Guru, Ati Snigdha</i>	<i>Laghu</i>	<i>Guru, Snigdha</i>
<b>Virya</b>	<i>Sheeta</i>	<i>Ati Sheetala</i>	<i>Sheeta</i>	<i>Ushna</i>
<b>Prabhava</b>	<i>Vata- Pitta Shamaka, Kapha vardhaka</i>	<i>Vata- Pitta Shamaka, Kapha vardhaka</i>	<i>Vata vardhaka, Pitta- Kapha Shamaka**</i>	<i>Pitta - Kaphavardhaka</i>

\*Also *Lavana* by *Acharya Bhav Prakash* \*\* *Sarvarogashaka* by *Acharya Bhav Prakash*

In *Harita Samhita*, different properties of *Aavi Dugdha* has been described. According to *Acharya Harita*, *Aavi Dugdha* is *Madhura*, *Guru*, ***Ruksha***, ***Vata - Kapha Shamaka*** and *Pitta vardhaka*.<sup>[10]</sup>

**Nutritional Value** (per 100 gram)

Milk has been described as the ‘nearly perfect food’ of the nature. It is easily digestible. The principal milk

protein is casein. Other proteins are lactalbumin and lactoglobulin. Milk proteins contain all essential amino acids. Milk fat is a good source of carotene. The carbohydrate in the milk is lactose. Milk is the only natural source of lactose.<sup>[11]</sup>

**Table 2:** Showing nutritional value of different milk as per modern science.

Component	Cow milk	Buffalo milk	Goat milk	Sheep milk
Protein	3.2	4.3	3.3	06
Fat	4.1	6.5	4.5	07
Water	88	83	87	80
Sodium	40mg	52mg	50mg	44mg
Energy	67 kcal	117kcal	72kcal	108kcal

**Season and Milk:** The season classified by different features express different effects on the body as well as the on environment. *Ayurveda* has depicted various rules and regimens (*Charya*), regarding diet and behavior to adjust seasonal enforcement easily without altering body homeostasis. The prime principle of *Ayurvedic* system of medicine is preventive aspect,

can be achieved by change in diet & practices in response to change in climatic condition.

**Milk in different Seasons:** Buffalo milk should be used in summer season i.e. in *Greesham Ritu*. The milk of Sheep is useful in *Hemanta* (beginning of winter). Cow’s milk is like ambrosia for human beings during the rainy season i.e. in *Varsha Ritu*.<sup>[12]</sup>

According to Seasons *Sanchaya* (Accumulation), *Prakopa* (Aggravation) & *Prashamana* (Pacification) of *Doshas*<sup>[13]</sup> in Table 3.

**Table 3:** Showing *Sanchaya* (Accumulation), *Prakopa* (Aggravation) & *Prashamana* (Pacification) of *Doshas* in different seasons

<i>Dosa</i>	<i>Sanchaya</i>	<i>Prakopa</i>	<i>Prashamana</i>
<i>Vata</i>	<i>Greeshama</i>	<i>Varsha</i>	<i>Sharda</i>
<i>Pitta</i>	<i>Varsha</i>	<i>Sharda</i>	<i>Hemanta</i>
<i>Kapha</i>	<i>Shishira</i>	<i>Vasanta</i>	<i>Greeshama</i>

**Summer Season:** Buffalo milk should be used in summer season i.e. in *Greesham Ritu*. In *Greesham Ritu*, accumulation (*Sanchaya*) of *Vata dosha* and pacification (*Prashamana*) of *Kapha dosha* occurs. Food which is light in process like those having *Snigdha* (unctuous), *Madhura* (sweet), *Sheeta* (cool) and *Dra-va* (liquid) and lot of water is advised. Buffalo milk with little sugar is the drink of choice in summer.<sup>[14]</sup> Buffalo milk is *Madhura* (sweet), *Sheeta* (cool), *Snigdha* (unctuous), that is why should be taken in **Summer Season**. In summer season temperature increases & sweating occurs. During sweating loss of sodium and water occurs & dehydration occurs. As the buffalo milk constitutes high sodium and water content, can be helpful in compensating the loss and maintain hydration.

As the body temperature rises, Proteins begin to deteriorate. Buffalo milk is excellent source of Proteins as it contains 4.3g protein per 100g. During summer, daytime lasts longer than 12 hours. Buffalo milk is heavy, takes time to digest and keeps us fuller for longer period of time.

**Winter Season:** Sheep milk should be used in winter season i.e. in *Hemanta Ritu*. In *Hemanta Ritu*, pacification (*Prashamana*) of *Pitta Dosha* occurs. An individual's strength (*Bala*) & digestive fire (*Agni*) stays at the highest level in this *Ritu*. So, the heavy food items can be easily digested. *Madhura* (sweet), *Salty* (*Lavana*), *Sheeta* (cool), *Snigdha* (unctuous) foods should be included in diet.<sup>[15]</sup> As the sheep milk is *Madhura* (sweet), *Lavana* (salty), *Guru* (heavy to digest), *Snigdha* (unctuous) and *Ushana* (hot) in potency that is why should be taken in **winter season**. When digestive fire does not get the proper fuel, it

affects the nutritive fluids, resulting in vitiation of *Vata dosha*. Because of *Vatashamaka* nature sheep milk is beneficial.

Sheep milk takes longer time to digest, can help to raise the body temperature & keeps the body warmer. Sheep milk contains fat in good amount. In winter season, our body uses fats to facilitate the absorption of vitamins A, E, K & D. Sunlight aids in vitamin D absorption, & most individuals get less sun when temperature drop.

**Rainy Season:** Cow milk should be used in rainy season i.e. in *Varsha Ritu*. In *Varsha Ritu*, accumulation (*Sanchaya*) of *Pitta dosha* and aggravation (*Prakopa*) of *Vata dosha* occurs. An individual's strength becomes weak during this season. *Snigdha* (unctuous) and *Tridosh shamaka* foods are indicated in this season.<sup>[16]</sup> Cow milk provides strength i.e. *Balya* in nature. Cow milk is *Snigdha* (unctuous) and *Tridosh shamaka* i.e. why can be used in rainy season. Rainy season trigger our immune system, leading to infections. Cow milk contains about 88% of water. Water aids in boosting our immunity as they negate the building of toxins in our body. Cow's milk increases the *Oja* in our body. *Oja* is natural immunity of the body. Hence milk increases the immunity.

**Cow Milk** can be used in any season and every day. Ten properties of cow milk have been described in our texts. That are *Swadu* (Sweet), *Sheeta* (Cold), *Mridu* (Soft), *Snigdha* (Oily), *Bahala* (Thick), *Shlakshna* (Smoothness), *Pichila*(Sticky), *Guru* (Heavy), *Manda* (Slow), *Prasanna* (Clarity). These are also the properties of *Ojas*. Cow's milk increases the *Oja* in our body. It is better *Jeevaniya Dravya* & *Rasayana*.<sup>[17]</sup> According to the concept of *Samanya* & *Vishesha* –

Substances or *Dravya* are always enhanced by consuming same things. So intaking of Cow's milk increases the *Oja* in our body. According to *Ayurveda*, *Oja* is regarded to be the purest part of the seven *dhatu*s & is referred as *Bala* by *Acharya Sushruta*, the

body's natural immunity. It is also known as *Vyadhikshamatava*. Our physical, mental & spiritual strength is totally dependent on *Oja*. *Acharya Rasayana* has been described in our texts in which milk is prescribed. As the milk is considered as a *Rasayana*.

**Table 4:** Comparison of utility of different milk in different season as per *Ayurveda* & modern science

Season	Rainy	Summer	Winter
Milk	Cow	Buffalo	Sheep milk
As per <i>Ayurveda</i>	An individual's strength becomes weak during this season. Cow milk provides strength i.e. <i>Balya</i> in nature.	<i>Snigdha</i> (unctuous), <i>Madhura</i> (sweet), <i>Sheeta</i> (cool) and <i>Drava</i> (liquid) and lot of water is advised. Buffalo milk constitutes these properties.	<i>Guru</i> (heavy to digest), <i>Snigdha</i> (unctuous) and <i>Ushana</i> (hot) <i>Dravya</i> are advised. Sheep milk constitutes these properties.
As per modern science	Rainy season trigger our immune system. Cow milk contains about 88% of water. Water aids in boosting our immunity.	Temperature increases & sweating occurs. Loss of sodium and water occurs & dehydration occurs. Helpful in compensating the loss and maintain hydration.	In winter season, temperature falls, and we feel colder. It raises the body temperature & keeps the body warmer.

## CONCLUSION

Milk provides special & unique nutrition that cannot be derived from any type of food. Milk nourishes all the tissues, promotes balanced emotions and help to balance all the *doshas*. It is one of the most important foods to promote the *Ojas*. *Ojas* brings strength, strong immunity and happiness. It is beneficial for people of all age groups as a dietary supplement & can be taken every day. It is also called *Jeevaniya dravya*. Hence there is no better life prolonger substance than milk.

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