ISSN: 2322 - 0902 (P)
ISSN: 2322 - 0910 (O)

International Journal of Ayurveda and Pharma Research

Review Article

A REVIEW OF *TAILA VARGA* (EDIBLE VEGETABLE OILS) ACCORDING TO BRUHAT TRAYI

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Article info

Article History:
Received: 02-09-2023
Revised: 22-09-2023
Accepted: 12-10-2023

KEYWORDS:
Taila Varga, Edible vegetable oil, *Bruhat Trayi.*

ABSTRACT

Vegetable oils have been used for many centuries in traditional Ayurvedic medicine in India and in Chinese medicine for their therapeutic properties. The purpose of this article is to inform readers about the characteristics of edible oil as described in Ayurveda, with particular emphasis on Charak Samhita, Sushruta Samhita, and Ashtanga Hridaya. Literature about nutrition and dietetics was studied in books, journals, and research engines. The main components of vegetable oils are sesame, coconut, groundnut, sunflower, soybean, palm, safflower, and mustard oils. Many other oils used as essential oils or for medicinal purposes. In addition, many oils can be used as functional food.

INTRODUCTION

Vegetable oil has a long and complex history that stretches back thousands of years. It is believed that the cultivation of plants for oil extraction dates back to ancient times, with evidence suggesting that sesame oil was one of the earliest vegetable oils used by mankind. The cultivation of sesame can be traced back to the Indus Valley Civilization, which existed around 2500 BCE. Vegetable oils have played a significant role in various civilizations throughout history. For example, in ancient Egypt, vegetable oils such as olive oil and castor oil were used for culinary purposes, as well as for cosmetic and medicinal applications.

In ancient Greece and Rome, olive oil became a staple in cooking and was also used for lighting lamps and as a base for perfumes. Additionally, vegetable oils were utilized in traditional Ayurvedic medicine in India and traditional Chinese medicine for their therapeutic properties. Throughout history, the production and use of vegetable oils have evolved. In the early 20th century, with advancements in technology and industrialization, the production of vegetable oil became more efficient and widespread.

Vegetable oils are a group of fats that are derived from seeds, nuts, cereal grains, and fruits.

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Quick Response Code

https://doi.org/10.47070/ijapr.v11iSuppl4.2938

There were many methods to obtain oil from a plant by using the sun, heat, oven, or fire. Oil is an important constituent of cooking. It is used for sautéing, deep frying, shallow frying, and in many other ways. There is a rise in non-communicable diseases in developed countries.

Early ecological studies and small, short-term interventions, most prominently by Ancel Keys, Frederick Stare, and Mark Hegsted, contributed to the widespread belief that fat was a major contributor to heart disease. In 1980, dietary guidelines remained heavily nutrient-focused: "Avoid too much fat, saturated fat, and cholesterol; eat foods with adequate starch and fibre; avoid too much sugar; avoid too much sodium." Research is taking another turn, stating that vegetable oils are good sources of nutrients and antioxidants.

According to the Global Edible Oil Market for developing nations, the per capita consumption of vegetable oil is assumed to reach 27kg with a growth rate of 0.4% per annum. India is projected to maintain its high per capita vegetable oil consumption with a growth rate of 3.1% per annum.[1] In India, oil from coconuts, cotton seeds, olives, palm, peanuts, rapeseed, soybeans, and sunflowers are widely consumed. Modern nutrition and dietetics have mentioned it in detail.

In the Samhita, edible oils have been described in *Taila Varga,* while describing food in detail.

Purpose of this article is to inform readers about the characteristics of edible oil as described in

Ayurveda, with particular emphasis on Chark Samhita, Sushruta Samhita, and Ashtanga Hridaya.

Sushruta Samhita has described around 60 *Taila*. Most of it is used for medical purposes rather than regular cooking.

MATERIAL AND METHODS

1. Literature from Charak Samhita, Sushruta Samhita, and Ashtanga Hriday was studied.
2. Literature about nutrition and dietetics was studied in books, journals, and research engines.

Table 1: List of vegetable oils in *Samhita*

Charaka Samhita	Sushruta Samhita	Ashtanga Hriday
Eranda (*Ricinus communis*) *Sarshapa* (*Brassica campestris*) *Priyal* (*Buchanania Latifolia*) *Atasi* (*Linum usitatissimum*) *Kusumbha* (*Carthamus tinctorius*) *Phala* (Derived from fruits) *Tila* (*Sesamum indicum*)	*Tila* (Sesamum indicum) *Eranda* (Ricinus communis) *Nimbadi* Group *Kiraataadi* Group *Madhookadi* Group *Tuvaraka* (*Hydnocarpus laurifolia*) *Bhallataka* (*Semecarpus anacardium*) *Saraladi* Group *Tumbi* Group *Yavatikta* (*Andrographis paniculate*) *Ekaikeshikaa* (*Operculina turpethum*) *Sahakaar* (*Mangifera Indica*) *Phalodbhava* (Derived from fruits)	*Tila* (*Sesamum indicum*) *Eranda* (*Ricinus communis*) *Rakta erand* (Red variety of *Ricinus communis*) *Sarshapa* (*Brassica campestris*) *Aksha* (*Terminalia bellirica*) *Nimba (Azardicta Indica*) *Uma* (*Linum usitatissimum*) *Kusumbha* (*Carthamus tinctorius*)

Table 2: Ingredients of *Sushrutokta varga*

No	Name of oil Group	Components
1	*Nimbadi*	*Nimba* (*Azardicta Indica*) *Atasi* (*Linum usitatissimum*) *Kusumbha* (*Carthamus tinctorius*) *Moolaka* (*Raphanus sativus*) *Jeemutaka* (*Luffa echinata*) *Vrukshaka* (*Holarrhena Antidysenterica*) *Krutavedhana* (*Luffa acutangula*) *Arka* (*Calotropis gigantea*) *Kampillaka* (*Mallotus philippensis*) *Hastikarna* (*Leea macrophylla*) *Pruthvika* (*Cuminum cyminum*) *Peelu* (*Salvadora persica*) *Karanja* (*Pongamia pinnata*) *Ingudee* (*Balanites aegyptiaca*) *Shigru* (*Moringa oleifera*) *Sarshapa* (*Brassica campestris*) *Suvarchala* (*Cleome viscosa* Linn) *Vidanga* (*Embelia ribes*) *Jyotishmati* (*Celastrus paniculatus*)
2	*Kiraatatiktaadi*	*Kiratatikta* (*Swertia chirayita*) *Atimuktaka* (*Ougeinia oojeinensis*) *Bibhitaka* (*Terminalia bellirica*) *Naalikera* (*Cocos nucifera*) *Kola* (*Ziziphus jujuba*) *Akshoda* (*Juglans regia)* *Jeevantee* (*Leptadenia Reticulata*) *Priyal* (*Buchanania Latifolia*)

		Karbudaar (*Bauhinia variegata*) *Sooryavalli* (*Holostemma ada*-kodien Schult) *Trapusa* (*Cucumis sativus* Linn) *Ervaaruka* (*Cucumis utilissimus* L) *Karkaaru* (*Cucurbita pepo*) *Kushmanda* (*Benincasa hispida*)
3	*Madhookadi*	*Madhooka* (*Madhuca indica*) *Kashmari* (*Gmelina arborea*) *Palasha* (*Butea monosperma*)
4.	*Saraladi*	*Sarala* (*Pinus roxburghii*) *Devadaaru* (*Cedrus deodara*) *Shinshapa* (*Dalbergia sissoo*) *Agaru* (*Aquilaria agallocha*) *Gandeera* (*Nerium oleander*)
5.	*Tumbi*	*Tumbi* (*Lagenaria siceraria*) *Koshaamra* (*Schleichera oleosa*) *Danti* (*Baliospermum montanum*) *Dravanti* (*Jatropha glandulifera* Roxb) *Shyama* (*Operculina turpethium*) *Saptala* (*Euphorbia pilosa*) *Neelika* (*Indigofera tinctoria*) *Kampillaka* (*Mallotus philippensis*) *Shankhini* (*Euphorbia dracanculoides*)

All the *Samhitas* have mentioned the properties of vegetable oils in detail

The *Samhitas* have mentioned the properties of oil separately or in groups. These properties work as a guide for using oils. *Tila* (sesame) oil, for example, has properties that are required for optimal body oleation.

Table 3: Ayurvedic properties of different *Taila*

No	*Taila*	*Rasa*	*Vipaka*	*Veerya*	*Guna*
1	*Tila* (*Sesamum indicum*)	*Madhura* *Tikta Kashaya*	*Madhura*	*Ushna*	*Sookshma, Vyavaayee, Vishada, Gura, Sara, Vikaasee*
2	*Eranda* (*Ricinus communis*)	*Madhura, Tikta Kashay Katu*		*Ushna*	*Guru, Teekahna, Sookshma*
3	*Sarshapa* (*Brassica juncea*)	*Katu*		*Ushna*	*Laghu*
4	*Priyaal* (*Buchanania Latifolia*)	*Madhura*		*Ushna*	*Guru*
5	*Atasi* (*Linum usitatissimum*)	*Madhura, Amla*	*Katu*	*Ushna*	*Guru, Snigdha*
6	*Kusumbha* (*Carthamus tinctorius*)		*Katu*	*Ushna*	*Guru, Vidaahi*
7	*Nimbadi* Group	*Katu*	*Katu*	*Ushna* (*Nati Ushna* for *Nimba* by AH)	*Laghu, Teekshna, Sara*
8	*Ingudi* (*Terminalia catappa*)	*Ishat Tikta*			*Laghu*
9	*Kiraatatiktaadi* Group	*Madhura*	*Madhura*	*Sheeta*	*Abhishyandee*
10	*Madhookadi* Group	*Madhura, Kashaya*			
11	*Tuvaraka* and *Bhallataka*	*Madhura, Kashaya, Tikta*			
12	*Saralaadi* Group	*Tikta Katu Kashaya*			

13	*Tumbyaadi* Group				
14	*Yavatikta* (*Euphorbia dracunculoides*)	*Ishat Tikta*			*Pathya*
15	*Ekaishika* (*Hibiscus sabdariffa*)	*Madhura*		*Atisheeta*	
16	*Sahakaar* (*Mangifera indica*)	*Ishat Tikta Madhura, Kashaya*			*Rooksha, Sugandhi*
17	*Rakta Eranda* (*Ricinus communis*)	*Madhura, Katu, Tikta*		*Ushna*	*Teekshna, Picchila, Vistra*
18	*Aaksha*	*Madhura*		*Sheeta*	*Guru*

Effect of oils on *Dosha*

Oils have a specific role in *Dosha*. It either pacifies or aggravates *Dosha*. This property is useful when deciding which oil should be consumed in which season, *Prakriti* or *Doshavastha*.

Table 4: Effect of Oils on *Dosha*

No.	***Taila varga***	**Effect on *Dosha***
1	*Tila*	*Pittakara, Vataghna, Kaphaghna*
2	*Eranda*	*Kaphakara, Vaatghna, Kaphaghna*
3	*Sarshapa*	*Pittkar, Vataghna, Kaphaghna*
4	*Priyal*	*Kaphakara*
5	*Atasi*	*Pittakar, Vataghna*
6	*Kusumbha*	*Sarvadoshaprakopanam*
7	*Nimbadi* Group	*Vaatghna, Kaphaghna*
8	*Ingudi*	
9	*Kiraatatiktaadi* Group	*Vaataghna, Pittaghna*
10	*Madhookadi* Group	*Kaphaghna, Pittaghna*
11	*Tukaraka* and *Bhallataka*	*Vaatghna, Kaphaghna*
12	*Saaraadi* Group	*Vaatghna, Kaphaghna*
13	*Tumbyaadi* Group	*Vaatghna, Kaphaghna*
14	*Yavatikta*	*Sarvadosha prashaman*
15	*Ekaishika*	*Pittaghna, Vaatkara, Kaphakara*
16	*Sahakaar*	*Vaatghna, Kaphaghna*
17	*Rakta Eranda*	*Vaatghna, Kaphaghna*
18	*Aaksha*	*Pittaghna, Vaataghna*

Functions of Oil

As we all know, food serves many purposes beyond providing calories and nutrients, according to modern dietetics. It serves a particular purpose. Although *Acharya* described the functionality of oil in general terms, they also mentioned the indication of oil in diseases, so we can say that it improves the quality of food. Oil can be used as medicine for a variety of illnesses. Additionally, they mentioned that there are certain conditions in which certain oils should not be used. Negative effects can, however, occasionally occur. For everyday cooking, the majority of it is used in medicine. About 60 *Taila* are described in the *Sushruta Samhita*. Instead of being used for everyday cooking, the majority of it is used in medicine.

Chart 5: Functions of Oils

No.	*Taila varga*	Function	Diseases
1	*Tila*	*Balya, Snehan, Baddha vinmutra, Twachya, Medhagnivardhanam, Brimhan, Preenan, Vrishya, Mardavakar, Sthairyakar, Varnya, Chakshushya, Lekhan, Pachan, Garbhashaya shodhana*	*Krumi, Sheetapitta, Yonishool, Karnashool, Shiroshool, Garbhashaya shodan, Bhagna, Dagdha*
2	*Eranda*	*Strotovishodhana, Twachya, Vrishya, Vayasthapan, Yoni shodhana, Shukra shodhan, Aarogya kar, Medhaakar, Smritikar, Kantikar, Balya, Adhobhagadoshahar*	*Vatarakta, Gulma, Hridroga, Jeerna Jwara, Vardhma, Udar, Vishamjwar, Ruka* and *Shopha* at *Kati, Guhya, Koshtha, Prushtha*
3	*Sarshapa*	*Shukraghna, Lekhan, Deepan*	*Kandu, Kotha, Krumi, Kushtha, Vrana, Jantu*
4	*Priyal*		
5	*Atasi*	*Achakshushya*	*Twakadoshakar*
6	*Kusumbha*	*Achakshushya*	*Twakadoshakar*
7	*Nimbadi Group*		*Krumi, Kushtha, Prameha, Shiroroga,*
8	*Ingudi*	*Drishtighna, Shukraghna, Balaghna*	*Kushtha, Krumi*
9	*Kiraatatiktaadi* Group	*Srushta mutra, Agnisaad, Abhishyanda*	
10	*Madhookadi* Group		
11	*Tukaraka* and *Bhallataka*	*Ubhayato bhaga doshahar*	*Kushtha, Medoroga, Meha, Krumi*
12	*Saralaadi* Group	*Vrana shodhana*	*Dushta vrana, Krumi, Kandu*
13	*Tumbyaadi* Group	*Adhobhagadoshahar, Vranashodhana*	*Dushta vrana, Krumi, Kushtha*
14	*Yavatikta*	*Agnideepan, Lekhan, Medhya, Pathya*	
15	*Ekaishika*		
16	*Sahakaar*		
17	*Rakta Eranda*		*Vardhma, Gulma, Udar, Vishamjwar, Ruka* and *Shopha* at *Kati, Guhya, Koshtha, Prushtha*
18	*Aaksha*	*Keshya*	

DISCUSSION

Different oils are mentioned in the *Samhitas*. Eight vegetable oils are mentioned by *Charaksamhita*, *Sushrutasamhita*, and *Ashtang Hriday* in *Taila Varga*. Fruits can be used to extract oils, but no further details were provided. These oils, according to the article, have the same qualities as fruits. *Rasa* (taste), *Vipaka* (post-digestive effect), *Veerya* (hot or cold potency), and *Guna* (physical properties), as well as their impact on *Dosha* details, are all discussed in the *Samhitas*. Additionally, oil is referred to as a functional food and a treatment for some illnesses. The drawbacks were also mentioned.

Cooking with sesame, coconut, rice bran, groundnut, sunflower, soybean, palm, safflower, and mustard oils is popular in India.

Both edible and medicinal oils are mentioned in the *Samhitas*.

This article gives views about

1. Use of oils as part of the food for treatment
2. Indication of medicinal plant oil
3. Functionality of oil
4. Contraindications

These oils can be divided into 3 categories:

1. Oil used as a food component - For purpose of cooking
2. Oils can used as table oil - Can be used in salads/ as toppings
3. Oil used as essential oil for medicinal purposes.

Scope of Research

1. Use of oils mentioned in *Samhitas* for specific condition
2. Nutritive assessments of above said oils

CONCLUSION

1. Research supports the characteristics mentioned in the text, despite the fact that many oils are no longer used.
   It emphasizes the value of these oils for healing.
2. There were many different types of oils available in ancient times.
   Some of it could have been used extensively in cooking.
3. Many oils, however, appear to be used therapeutically.
4. Sesame oil, mustard oil, coconut oil, and safflower oil are all popular cooking oils.
   Salads can benefit from pistachio oil, flaxseed oil, *Moolak* oil, *Shigru* oil, walnut oil, *Priyal* oil, *Traipusa, Ervaruka,* and *Madhuka taila*.
5. Rest oils are medicinal in nature.
   Many of its constituents are used as essential oils or for medicinal purposes.
6. Though we only use a few oils on a daily basis, we can supplement our diet with table oils for getting it's nutrition benefits
7. In terms of treatment, many oils have been shown to have antioxidant and anti-inflammatory properties. They should be used in treatment.

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Cite this article as:
Jyoti Jagtap, Manoj Jagtap. A Review of Taila Varga (Edible Vegetable Oils) According to Britat Trayi. International Journal of Ayurveda and Pharma Research. 2023;11(Suppl 4):33-38.
https://doi.org/10.47070/ijapr.v11iSuppl4.2938
Source of support: Nil, Conflict of interest: None Declared

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