



AYURVEDIC APPROACH ON GRAINS OF POACEAE FAMILY W.S.R TO THE MILLETS –A REVIEW

¹Dr. Shivani Sharma

PG Scholar

²Dr. Surinder Kumar Sharma

H.O.D & Professor

³Dr. Rohit Johari

Associate Professor

PG Department of Dravyaguna, Dayanand Ayurvedic College, Jalandhar, Punjab.

Abstract:

Ayurveda is an alternative medicine system with historical roots in the Indian subcontinent. The two main *Prayojana* of *Ayurveda* are to maintain good health and to overcome disease. The purpose of *Ayurveda* is to protect the health of healthy people and to alleviate disorders in the diseased. *Ayurveda* has not restricted itself as the path, which treats diseases but being the science of life has covered all the aspects necessary to maintain health. *Bhavaprakasa Nighantu* is a *Sanskrit* text written by *Bhavamishra*. It is a core text in *Ayurvedic* Materia Medica and is considered an essential work on classical literature. It covers various *gana* (classification) of *Bhavaprakash*, one of them is *Dhanya varga*. *Dhanya varga* is categorized into *kshudradhanya* also known as *kudhanya* and *trinadhanya* in *Sanskrit*, containing 4 millets viz. *kangu* millet, *cheenaak* millet, *shyamaak* millet, *kodrava* millet. *Kshudradhanya* is a variety of small seeded cereals that have been utilized as human nourishment for centuries. They are commonly referred to as millets. They provide several health benefits because they are high in nutrients. *Kshudradhanya* have a distinguished explanation in *samhitas* and *nighantu* with their specific properties and effects based on which their indications and contraindications can be elicited.

Introduction

Millets are gaining the status as an ingredient in the production of functional food. They are also known as nutri-cereals as they provide nutrition to the body. They are also called coarse grains and superfood. From ancient time period, millets are the parts of our agriculture and civilization present in our *vedas* and *puranas*. Like our culture, millets are a diverse species of small-seeded grasses that are commonly cultivated as cereal grains for human and animal nourishment around the world. The majority of the species that are commonly referred to as millets belong to the *Poaceae* or *Gramineae* family i.e. grass family. Millet is a nutrient powerhouse and provides health benefits to an individual. *Bhavaprakasha Nighantu* is basic Indian Materia Medica which imparts the knowledge of medicinal

plants, one from *Laghutrayi granthas*. Millets are small-seeded grasses with different varieties such as *kodo* millet (*Paspalum setaceum*), proso millet (*Penicum miliaceum*), foxtail millet (*Setaria italica*), barnyard millet (*Echinochloa utilis*), adlay millet (*Coix lachryma jobi*) and Sorghum (*Sorghum vulgare*). The main aim of this article is to review millets in and their importance in our day-to-day life such as comprehensive classical literature along with modern literature on millets along with their health benefits on various body systems such as digestive system, cardiovascular system, neuromuscular system in various diseased conditions i.e. diabetes, obesity, hypertension, constipation etc. along with their *Ayurvedic* properties and therapeutic uses, with the hope that it will continue for upcoming future. So, an initiative has been taken to promote millets and its preparation is going on in full swing at national and international levels.

Keywords: *Ayurveda*, *Bhavprakash nighantu*, *kshudradhanya*, Millets

Aim of the study

- To review the millets of *kshudradhanya*
- To identify enlisted millets with their botanical source.
- To review their properties and therapeutic uses.
- To provide further scope for prevention of chronic diseases and maintaining health wellness among individuals.

Materials and Methods

As this study is a critical review the material used in these study are as follows:

1. *Bhavapraksh nighantu*
2. Different research articles, journals and databases of different health sciences

Methodology

Critical literary study of all the possible literature was assessed for *kshudradhanya* and promoting health and wellness from different literatures of *ayurved* and modern medicine.

Table No. 1 Review of *Kshudra dhanya varga / Kudhanya / Trinadhanya*

S. No.	DHANYA VARGA	MILLET NAME	ENGLISH NAME		
1	<i>Kshudradhanya</i>	<i>Kangu</i>	Foxtail millet		
		Types		1	<i>Krishna</i>
				2	<i>Rakta</i>
				3	<i>Peeta</i>
				4	<i>Sita</i>
2		<i>Shyamaak</i>	Barnyard millet		
3		<i>Kodrava</i>	Kodo millet		
4		<i>Cheenak</i>	Proso millet		
5		<i>Gavedhuka</i>	Adlay millet		
6		<i>Yavanaala</i>	Jowar		

Table No. 2 Identification of the millets mentioned in *Bhavprakash Nighantu*

S. No.	MILLET NAME	SYNONYMS	BOTANICAL NAME	FAMILY
1	<i>Kangu</i>	<i>Priyangu</i>	<i>Setaria italic</i>	Poaceae
2	<i>Shyamaak</i>	<i>Shyamak, Shyam, Tribeeja, Avipriya, Sukumar, Raj dhanya, Trinabeeja uttam</i>	<i>Echinochloa frumentacea</i>	
3	<i>Kodrava</i>	<i>Kodrava, Kordusha</i>	<i>Paspalum scrobiculatum</i>	
4	<i>Cheenak</i>	<i>Kaak kangu, Sushalakshan, Shalakshanak, Kangubheda</i>	<i>Panicum miliaceum</i>	
5	<i>Gavedhuka</i>	<i>Gavedhuka, Gavedhu</i>	<i>Coix lachryma jobi</i>	
6	<i>Yavanaala</i>		<i>Sorghum vulgare</i>	

GENERAL PROPERTIES AND THERAPEUTIC USES OF MILLETS

In *Bhavprakash nighantu*, the author *Bhavmishra* quoted *kshudradhanya* general *ayurvedic* properties as *Kashaya*, *madhura ras*, *laghu*, *ruksha guna*, *ushna veerya*, *katu vipaka* and *ayurvedic doshaghanta* include aggravation of *vata dosha* and pacification of *kapha-pitta dosha* and hemorrhagic disorders. It also acts as a scraping agent and antidiarrhoeal.

Table No. 3 PROPERTIES AND THERAPEUTIC USES OF MILLETS

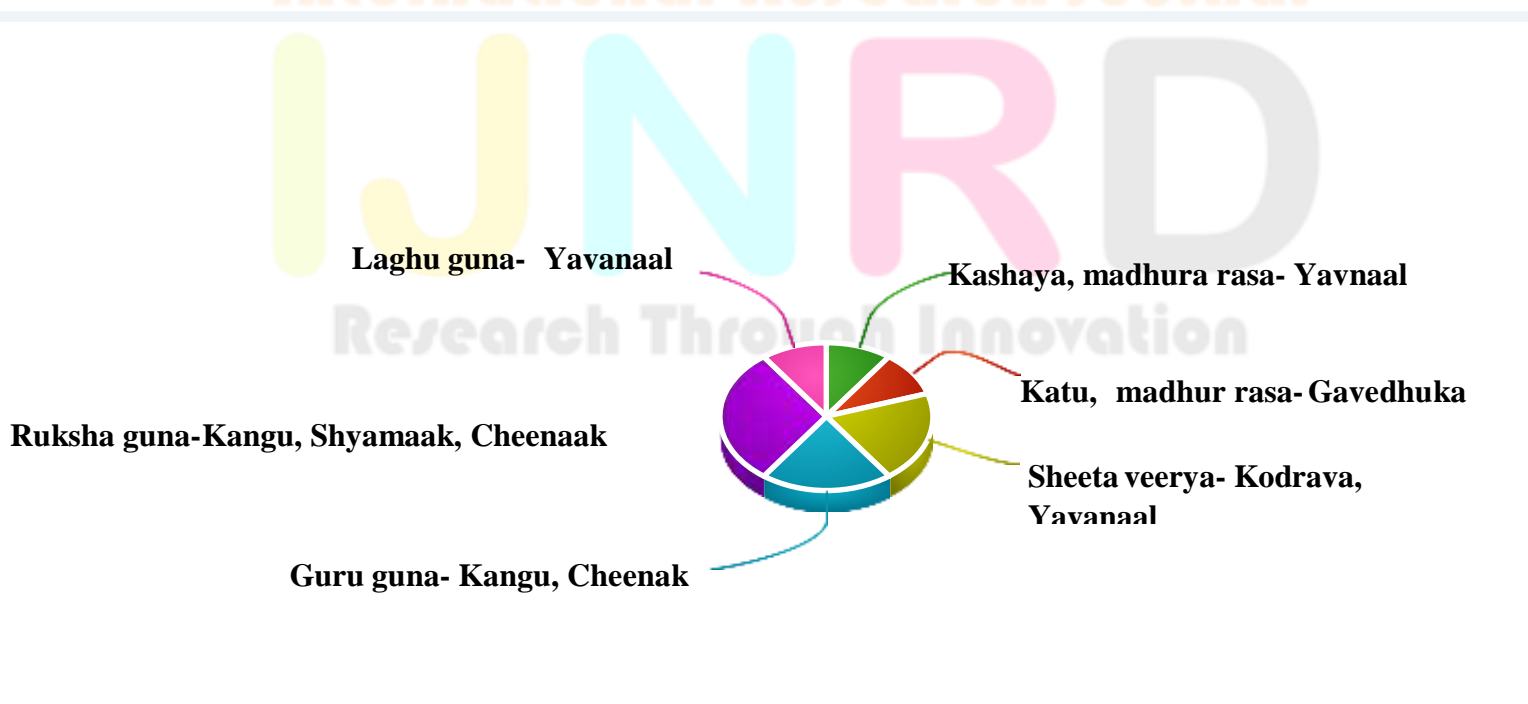
S. No.	MILLET NAME	AYURVEDIC PROPERTIES	AYURVEDIC DOSHGHANTA	THERAPEUTIC USES
1	<i>Kangu</i>	<i>Guru</i> (heavy in digestion) <i>Ruksha</i> (dryness)	Pacifying <i>kapha dosha</i> , aggravating <i>vata dosha</i>	➤ Reduces risk of diabetes.
3	<i>Shyamaak</i>	<i>Ruksha</i> (dryness)	Pacifying <i>kapha- pitta dosha</i> , aggravating <i>vata dosha</i>	➤ Useful in the treatment of obesity. ➤ Treat hypertension ➤ Cure fractures of bones.
4	<i>Kodrava</i>	<i>Sheeta</i> (cold potency)	Pacifying <i>pitta kapha dosha</i> , aggravating <i>vata dosha</i>	➤ Useful in skin diseases and blood related disorders
4	<i>Cheenak</i>	<i>Guru</i> (heavy in digestion) <i>Ruksha</i> (dryness)	Pacifying <i>kapha dosha</i> , aggravating <i>vata dosha</i>	➤ Beneficial in Rheumatoid arthritis (<i>aamvata</i>)
5	<i>Gavedhuka</i>	<i>Katu</i> (pungent taste) <i>Madhura</i> (sweet taste)	Pacifying <i>kapha dosha</i>	
6	<i>Yavanaala</i>	<i>Kashaya</i> (astringent taste) <i>Madhura</i> (sweet taste), <i>Sheeta</i> (cold potency), <i>Laghu</i> (light in digestion), <i>Ruksha</i> (dryness)	Pacifying <i>kapha-pitta dosha</i>	➤ Helps in muscle strengthening ➤ Cures urinary problems ➤ Acts as nervine tonic, antidiarrhoeal, diuretic and scraping agents

OBSERVATIONS:

From the above data it is observed that overall kshudradhanya (millets) have general properties but specifically most of the millets viz; *kangu* and *cheenaka* observed *guru guna* which is helpful in in-digestion. Though millets are heavy for digestion, it is mentioned as *Laghu* in general qualities which can be understood as the after effect of proper digestion of millets on the body is, it imparts lightness and relieves from constipation. On the other hand, *kangu*, *cheenak*, *shyamaak* possess predominantly *ruksha guna* which is beneficial in allergic conditions like cough, asthma and bronchitis etc. Moreover, *Bhavprakasha nighantu* narrated *kodrava* is of 2 types *kodrava* possess *sheeta veerya* aids in faeces formation and *vankodrava* also known as *uddyala* possess *ushna veerya* contraindicated in blood related disorders. Both have the same therapeutic uses i.e. aggravating vata dosha and work as antidiarrhoeal in diarrhea and dysentery. *Gavedhuka* possess *katu madhura rasa* and *Yavanaal* possess *sheeta veerya*, *madhura rasa* which is beneficial in obesity and also shows diuretic action curing urinary problems and renal calculi.

Classical literature available in various treatises of *Ayurveda* including *Bhavprakasha nighantu*, millets have been categorized under *dhanya varga* which is further classified as *kshudradhanya*. Enlisted 6 types of millets i.e. Proso millet (*Cheenak*), Foxtail millet (*Kangu*), barnyard millet (*Shyamaak*), Kodo millet (*Kodrava*), Adlay millet (*Gavedhuka*), Sorghum (*Yavanaala*) shows various health benefits on different body systems indicated in rheumatoid arthritis, skin diseases, anti-inflammatory conditions, haemorrhagic disorders due to *kapha pitta shamaka* property, but also protects from diabetes and obesity due to *kaphashoshana* property of adlay millet which reduces *kapha dosha* in the body further results in emaciation of the body. Further, due to *vata* aggravation, millets strengthen the nerves and are helpful in neurological disorders thus act as nervine tonic. Moreover, on the based on their medicinal benefits and *Ayurvedic* qualities millets help in managing these lifestyle disorders.

Fig.1 Pie diagram of Ayurvedic Properties of Kshudradhanya (Millets)





Kashaya, madhura rasa - Yavanaal



Sheeta veerya- Kodrava, Yavanaala



Ruksha guna- Shyamaak, Kangu, Cheenaak



Katu, madhura rasa- Gavedhuka



Guru guna- Kangu, Cheenak



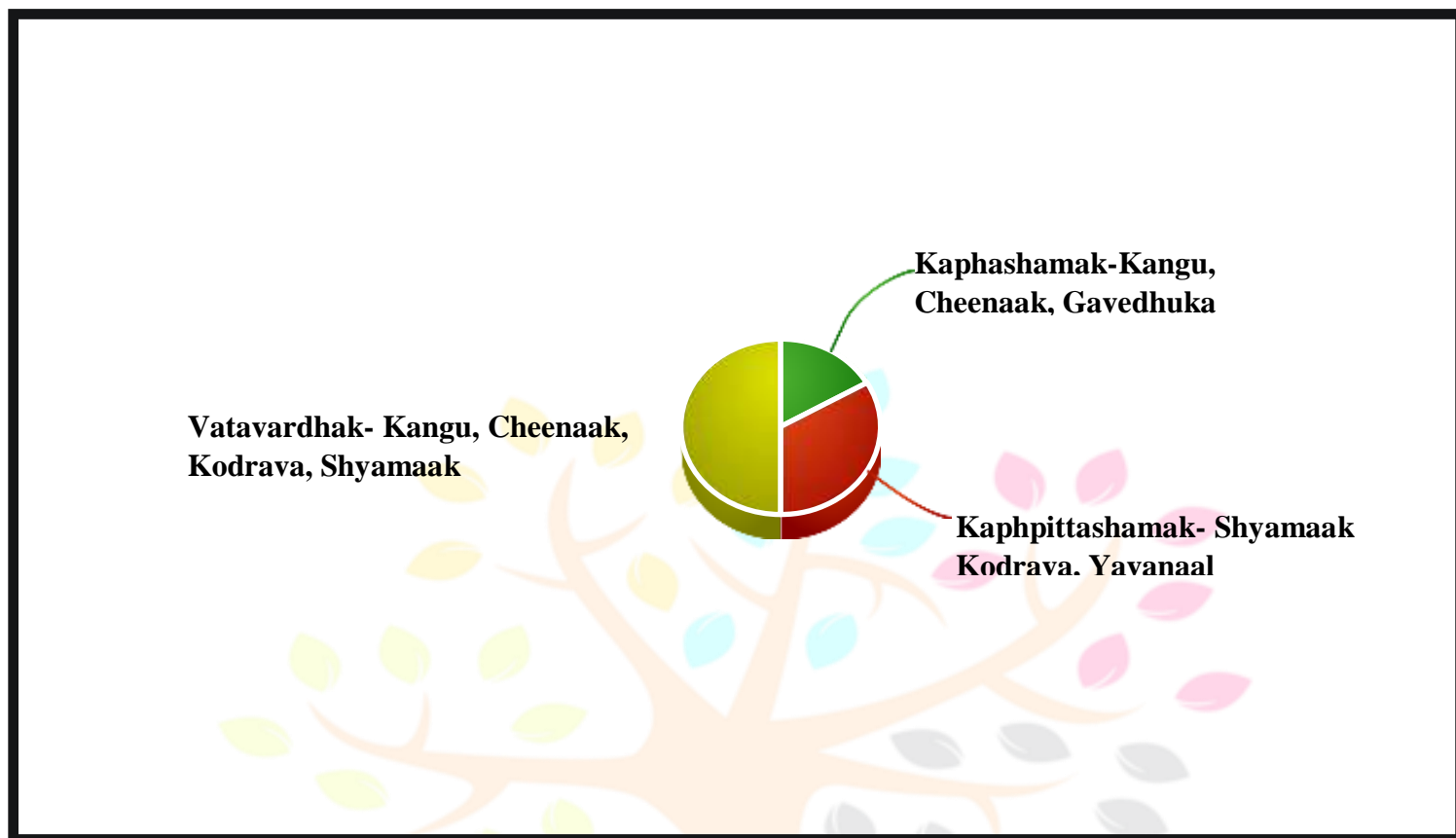
Laghu guna- Yavanaal



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Fig.2 Pie diagram of Ayurvedic Doshghanta of Kshudradhanya (Millets)

- Kaphashamak-Kangu, Cheenaak, Gavedhuka
- Kaphpittashamak- Shyamaak Kodrava, Yavanaal
- Vatavardhak- Kangu, Cheenaak, Kodrava, Shyamaak

Conclusion

It is good for all over human health and should be considered as a primary food instead of staple food wheat and rice. They timely combating rate of fat absorption, slow release of sugars (low glycemic index), reducing risk of cardiovascular diseases such as high blood pressure, high cholesterol levels, gastric disturbances such as indigestion, diarrhoea, dysentery, allergic conditions and bleeding disorders due to *ushna veerya*, *sheeta veerya*, *kashaya-madhura rasa*, *laghu*, *ruksha guna*, *katu vipaka* shows kaphashamaka, raktavikara nashak, pittashamak, vatavardhaka properties thus maintaining cardiovascular system, respiratory system, digestive system, neuromuscular system last but foremost excretory system. They have an approach for sustainable agriculture and a healthy world regarding food security, nutritional security, safety from diseases and economic security. Millets have a great nutritional value and are now gaining popularity around the world since they are good for human

wellness and upcoming generations. Due to increased awareness regarding the health promoting profile of millets, inclination towards their consumption has been observed. Millets are considered to be “future crops” as they are resistant to pests and diseases, short growing season, and productivity under drought conditions, compared to major cereals.

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