

**“THE GREAT INDIAN MILLET- JOWAR (SORGHUM VULGARE): A REVIEW”****Ayurveda****Dr. Akanksha Agale**

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KEYWORDS**INTRODUCTION:**

In Ayurveda, an optimal state of health can only be achieved when there is proper balance of Trayopasthamba (Three pillars of life) i.e., Ahara (Diet), Nidra (Sleep) and Brahmacharya (Abstinence). Ahara (Diet) plays an important role to attain good health and wellness, which is why it is considered as first and foremost pillar of Ayurveda.

With Ahara, comes Nutrition and the oldest and most basic indigenous food grains utilized as a main source are “Millets”.

“Millet” is a collective term referring to several small-seeded annual grasses that are cultivated as grain crops, primarily on marginal lands in dry areas in Temperate, Subtropical and Tropical regions.

They stand out from other food grains because they are smaller yet more nutrient dense. The Rigveda was the first work to introduce them, followed by the Yajurveda and the Atharvaveda.

This article aims to explore the nutritional potential of the Millet, “JOWAR” and its properties. An attempt has been made to understand the Properties (Gunas) and Functions (Karma) of Jowar along with its Indications, Contra-indications, etc.

Jowar is the most used Millet since ancient times, a native to Africa and widely grown in India.

India is the largest production of Jowar in the world and accounts for 20% of global production and 80% of Asia's production.

DESCRIPTION:

Various Ayurvedic Classical Texts have described Jowar or Sorghum in different Vargas as in;

1. Bhavprakash (Dhanyavarga Adhyaya, Shlok No. 74)
2. Kaiyadeva Nighantu (Dhanyavarga Adhyaya, Shlok No. 105-107)
3. Dhanvantari Nighantu (Suvarnadi Varga Adhyaya, Shlok No. 101)
4. Raj Nighantu (Shamalyadi Varga Adhyaya, Shlok No. 79-80)

PROPERTIES:

Botanical Name: *Sorghum bicolor*

Synonym: *Sorghum vulgare*

Family: Gramineae

Vernacular Names:

Sanskrit- Yaavanala; English- Sorghum, Great Millet, Indian Millet, Milo, Grain Sorghum, Guinea Corn, Shuttercane; Hindi- Jowar, Juvaar, Juaar; Marathi- Jwari

MEDICINAL PROPERTIES:

Rasa- Madhura, Kashaya

Veerya- Ushna

Vipaka- Katu

Gunas- Guru, Ruksha, Ushna

Karmas- Ruchya, Trishnaghna, Kledaghna, Mutrajanan and Vrishya

Effects on Tridoshas- Vata Prakopaka, Kapha-Pitta Shamaka

Nutritional Properties:

MILLET	CONTENTS	VALUE
Jowar (Yaavanal) 100 gms	Protein (gm)	10.6
	Fat (gm)	3.1
	Carbohydrates (gm)	75.0
	Calcium (mg)	26
	Iron (mg)	4.22
	Magnesium (mg)	165
	Phosphorus (mg)	287
	Sodium (mg)	0.67
	Thiamine (mg)	0.11
	Riboflavin (mg)	1.79
	Zinc (mg)	2.48
	Niacin (mg)	2.1
	Vit E (mg)	6.7
	Fiber Calories (kcal)	361

Flavonoids-

The predominant flavonoids in sorghum include “Luteolin”, “Apigenin”, “Eriodictiol” and “Naringenin”.

Flavonoids have been reported to exert Anti-Obesity actions both in vitro and in vivo by suppressing Triglyceride accumulation, reducing Adipocyte viability and proliferation, stimulating Lipolysis, β -oxidation of fatty acids, and reducing Inflammation.



Fig. 01. Jowar (*Sorghum vulgare*)

POTENTIAL USES/INDICATIONS OF JOWAR:**Modern Aspect-****1. In Oxidative Stress-**

Jowar contains many Bioactive compounds like Phenolic Compounds, especially condensed Tannins which act as Antioxidant agents which help in reducing oxidative stress and fight against various Chronic diseases.

2. In Diabetes Mellitus-

Jowar is effective in reducing the activity of certain enzymes involved in the breakdown of starch into glucose which leads to an increase in blood glucose with the help of Tannins.

3. In Weight Management-

Jowar is a grain which is digested slowly by our body. Thus, it helps in reducing Calorie Intake.

4. In Lipid Disorders-

Jowar has cholesterol-lowering potential. Phytosterols and

Polycosanols are lipids present in Jowar that help regulate the synthesis, absorption and excretion of cholesterol.

5. In Inflammation-

The phenolic compounds of jowar influence and interfere with the inflammatory processes by affecting the activity of inflammatory markers.

6. In Cancer-

The phenolic compounds present in jowar have Antioxidant potential which help as an Anti-Cancer agent. A compound like 3-deoxyanthocyanidins (a phenolic compound) helps to fight against the growth of cancer cells.

AYURVEDIC ASPECT-

1. **Raktapitta** (can be co-related to Bleeding disorders)
2. **Amlapitta** (can be co-related to Hyperacidity/ Gastritis)
3. **Twak Rogas** (can be co-related to Skin diseases)
4. **Trishna** (can be co-related to Thirst)
5. **Sthoulya** (can be co-related to Obesity)
6. **Madhumeha** (can be co-related to Diabetes Mellitus)

CONTRA-INDICATIONS:

- In Daily routine, not to be used for prolonged periods or in excess.
- Should be used cautiously in case of children and lean and thin individuals.
- Newly harvested grains should not be taken in excessive consumption, especially without appropriate Sanskara.
- Should be avoided in Hyperthyroidism patients, as it may elevate the symptoms of Goitre, etc.

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