

# Review on Millets its global importance with special reference from Vrikshaayurved

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**Abstract**— Millets have been a staple food for centuries, recognized for their nutritional value and health benefits. References to their use in Ahaa Varga (dietary supplements) date back to the Nighantukaal period in Ayurveda. Today, millets are gaining global recognition for their role in promoting health, prosperity, and sustainability. Ancient Ayurvedic texts, known for their insights into holistic living and nutrition, also contain lesser-known scriptures such as Vriksayurveda, which emphasize cultivation, production methods, treatments, and quality standards many of which remain relevant in modern agricultural practices. Recent years have seen a resurgence of interest in Vriksayurveda, particularly in sustainable farming and irrigation techniques rooted in historical knowledge. Among the widely cultivated millets, Jowar (Sorghum Vulgare) and Bajra (Pennisetum glaucum) hold significant nutritional value and are highlighted in this study for their health-promoting properties. These grains are known to aid in managing lifestyle disorders when incorporated into a staple diet. The ease of millet cultivation, coupled with favorable soil and climate conditions in tropical regions like India, presents opportunities for researchers and farmers to further explore their benefits for society. **Jowar (Great Millet/Sorghum Vulgare):** Rich in essential nutrients such as iron, calcium, potassium, and phosphorus. It also contains thiamine and riboflavin, along with beneficial phytochemicals that contribute to weight management and cardiovascular health. **Bajra (Pearl Millet/Pennisetum glaucum):** Known for its lower glycemic index compared to wheat and rice. Its magnesium content supports heart health, while niacin aids in lowering cholesterol levels. Regular consumption helps reduce triglycerides and C-reactive protein levels. **Cultivation Methods:** includes like as stated **Soil Preparation:** Suitable soil is one that is neither excessively dry nor waterlogged, allowing various plant species to thrive. **Sowing Techniques:** Seeds are sown alongside sesame and mash seeds on well-ploughed, level

ground. Once ripened, they are reintegrated into the soil. **Pre-Sowing Treatment:** Seeds undergo steaming (dhupan) with Vidanga powder and ghee, promoting optimal sprouting. **Irrigation:** A combination of milk and water is applied weekly, supplemented by regular water irrigation as needed. **Fertilization:** Traditional Kunapajaala fertilizers from Vriksayurveda are integrated into modern farming methods to enhance soil fertility. This study underscores the significance of millets and Vriksayurveda in contemporary agricultural and nutritional sciences, paving the way for sustainable practices that benefit global well-being.

**Index Terms**— Vrikshaayurved, farming, Jowar & Bajra

## I. INTRODUCTION

Over the past seventy years, Indian agriculture has primarily focused on enhancing crop yield and production through the use of fertilizers and pesticides. While these chemical inputs have contributed to high agricultural output, they have also led to concerns regarding nutritional depletion in crops, environmental hazards, soil infertility, groundwater contamination, and global warming. In response to these challenges, organic farming has emerged as a sustainable alternative.

The science of farming and harvesting has been documented in early branches of Ayurveda, including Vrikshayurveda, which emphasizes conservation, advanced cultivation techniques, plant collection methods, and the responsible use of bio-resources for health and therapeutic purposes. Ancient Indian texts highlight propagation methods involving seeds, roots, and stem cuttings, as well as strategies for plant nourishment. Additionally, these scriptures provide

insights into the management of plant disorders and treatments for disease prevention.

In ancient India, people recognized the significance of conserving and advancing plant resources for the well-being of society. Traditional scriptures contain valuable knowledge on farming and agricultural practices that were implemented long before the use of modern chemicals. Vrikshayurveda, meaning "the science of plant life," primarily focuses on various tree species, their growth, and their productivity. Rooted in Ayurvedic principles, it aligns closely with natural processes to promote ecological balance and sustainable agriculture.

AIM:

To include the millets for social health cause by growing them through using ancient vrikshayurved methods of farming.

## II. METHODOLOGY

### Literature Review

This study involves an extensive review of literature focusing on:

Vrikshayurveda

Jowar (*Sorghum Vulgare*)

Bajra (*Pennisetum glaucum*)

The International Year of Millets 2022 highlighted the global recognition of millets' importance in health and nutrition. As awareness grows, the focus has shifted towards adopting millets as a staple food to support a healthier lifestyle. This renewed interest has encouraged researchers to explore these grains, which were once overlooked in modern dietary patterns. Millets' nutritional and medicinal significance have long been documented in Ayurvedic texts, and their cultivation using traditional Vrikshayurveda techniques can contribute to holistic well-being.

### 2.1 Jowar (*Sorghum Vulgare*)

Cereals, classified as edible grasses cultivated for food purposes, account for nearly 60% of global agricultural land. These grains offer substantial health benefits due to their rich nutritional composition, including biologically active compounds.

Sorghum (Jowar) stands out as a significant millet crop in India. The physico-chemical properties of grains play a key role in determining their acceptability and nutritional quality.

### Ayurvedic Properties of Jowar

Rasa (Taste): Madhura (sweet), Kashaya (astringent)

Veerya (Potency): Sheeta (cooling)

Guna (Quality): Laghu (light and easily digestible)

Dosha Balance: Pacifies Vata and Kapha

### Health Benefits

Supports heart health and aids in weight management due to its high phytochemical content.

Contains essential nutrients including iron, calcium, potassium, and phosphorus.

Rich in thiamine and riboflavin, which contribute to overall metabolic health.

Has properties such as Trishghna (reduces excessive thirst) and Kledaghna (reduces excessive moisture levels in the body).

Fig.1 Jowar



### 2.2 Bajra (*Pennisetum glaucum*)

Pearl millet, known as Bajra, is recognized for its low glycemic index, making it beneficial for managing blood glucose levels compared to wheat and rice.

### Ayurvedic Properties of Bajra

Rasa (Taste): Madhura (sweet)

Veerya (Potency): Ushna (heating)

Guna (Quality): Ruksha (dry)

Dosha Balance: Pacifies Vata and Kapha

### Health Benefits

Magnesium in Bajra helps reduce the risk of heart attacks.

Niacin plays a role in lowering cholesterol levels and promoting cardiovascular health.

High oil content, with 16% germ fraction, makes it nutritionally dense.

Rich in B-complex vitamins, primarily present in the outer bran layer.

Contains 73g of carbohydrates per 100g, making it a valuable energy source



Fig. 2. Bajara

Table: 1. Nutritional Composition and Physicochemical Properties

Nutritional Composition	
Parameter	Value (%)
Moisture Content	5.94 ± 0.18
Ash Content	3.05 ± 0.11
Crude Fiber	0.20 ± 0.07
Protein	5.54 ± 0.15
Crude Fat	11.00 ± 0.34
Carbohydrates	74.27 ± 0.85

Physicochemical Properties

Parameter	Value
Refractive Index	1.46
Density (g/mL)	0.81
Cloud Point (°C)	0.40

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Carbohydrates	74.27 ± 0.85
Organic matter	91.01 ± 0.93

Physicochemical Properties

Property	Value
Refractive Index	1.46
Density (g/mL)	0.81
Cloud Point (°C)	0.40

### III. DISCUSSION

Jowar has qualities like Madhura and Kashaya in rasa, Laghu, Sheeta Virya and pacifies Vata and Kapha dosa. Jowar has essential nutrients like iron, calcium, potassium and phosphorus. It sustains good amount of thiamine and riboflavin. Phytochemicals are also present in high amount in millet that they have shown potential usefulness in reducing the obesity. Jowar is also said to be beneficial for heart.

Bajra has qualities like Madhura in Rasa, Ruksha, Usna Virya and pacifies Vata and Kapha Dosha. [] It is known to be relatively low glycemic index than wheat and rice. Magnesium in millet form helps in reducing the effect of heart attacks. Bajra contains Niacin which helps in lowering the cholesterol level. Its consumption causes decrease in triglycerides and C-reactive protein. The pearl millet bran is low in mineral matter

### IV. CONCLUSION

The ancient methods in Vrikshayurved and the ayurvedic or natural ancient methods of fertilization preparations like of Kunapa Jaal, these techniques can be used in today's modern era to get a non-chemical based completely pure form like derieved from nature for regular and daily use of mankind for enhancing the quality of life.

The old ancient science forgotton and can be further researched.

As the world had accepeted the importance of millets declaring millet year and promoting the healthy way of living and reducing the mortality rate due to diseases like cancer, diabeter, hypertension, cardiac disorders.

Thus, promoting healty life and making earth a place for healty and better longevity to life.

Health has always been the root cause for all global wellbing and various causes realated and based on healthy life style. So studing and regaing the importance of millets like Jowar and Bajra.

Knowing their health benefits since ancient times and implementing the traditional methods to bring its regular use in practise can sort out many health issues and regulate a healthy wealthy way of lifestyle implementing and become a boon to properous health in traditional and ayurvedic way, a blessing to the global health.

Conflicts of Interest: “The authors declare no conflict of interest.”

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