

Cultivation of Proso Millet (Cheena) in India

**Kamal Kumar Sharma,
S. C. Sharma,
Ruchi Bishnoi and
Ramesh Yadav**

Agriculture University, Kota



*Corresponding Author

Kamal Kumar Sharma*

Available online at
www.sunshineagriculture.vitalbiotech.org

Article History

Received: 15. 05.2022

Revised: 24. 05.2022

Accepted: 28. 05.2022

This article is published under the terms of the [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/).

INTRODUCTION

About Proso Millet:-

Proso millet is important minor millet grown in India. Millets are small-seeded annual cereals grown for food, feed, forage and fuel. Proso millet is also called as wild Proso millet, birdseed millet, broom corn millet, broomcorn millet, common millet, hog millet, Kashfi millet, red millet, Hershey millet, panic millet and white millet. In India cheena is largely grown in Madhya Pradesh, Eastern Uttar Pradesh, Bihar, Rajasthan and Tamil Nadu.

Scientific name : *Panicum miliaceum* L.

Family: Gramineae

Origin: India

Botanical Description:

Proso stems and leaves are covered with slight hairs. The leaves may be up to 30 cm long with a short ligule but no auricles. The stem is terminated by a drooping panicle 10 to 45 cm long that may be open or compact. The inflorescence is much branched panicle without bristles having spikelet's at the tips of the branches. The Proso ($2n = 36$) is considered a self-pollinated crop, but natural cross-pollination may exceed by 10%.

Nutrition and benefits:

1. Proso millet is rich in magnesium which helps to lower the blood pressure and also decreases the chances of strokes, heart attacks and atherosclerosis.
2. The high amount of fiber found in Millet helps to lower the cholesterol. Dietary fiber helps to eradicate the bad cholesterol from the body and promotes the good cholesterol level.
3. Magnesium is the vital mineral that helps to increase efficiency of glucose and insulin receptors in the body and prevents this disease from occurring.

Package and Practices:-**Climate:**

Proso millet is a crop of warm climate. It is grown extensively in warm regions of the world. It is highly drought resistant and can be grown in areas where there is scanty rainfall. It can withstand water stagnation also to some extent.

Soil:

Well-drained loam soil or sandy loam soils free from Kankar and rise in organic matter are ideal for Proso millet cultivation.

Varieties:

TNAU-151, TNAU-164, GPUP-8, Pratap chena-1, Bhawana, Nagarjuna, PRC-1 and K-1

Sowing Time:

Khairf- first fortnight of July

Summer- middle of April

Seed Rate:

Proso millet can be sown by broadcasting or drilling seeds in furrows 3-4 centimeter deep. Row to row distance should be kept 25 centimeter and plant to plant 10 centimeter. Line sowing ensures better germination, cuts down seed requirement and facilitates intercultural operations compare to broadcast sowing. Depending upon the method of sowing, 8-12 kg seed is required for sowing one hectare of land.

Manures and Fertilizers:

Proso millet being a short duration crop, requires relatively less amount of nutrients compared to other cereals.

N- 40kg/ha

P₂O₅- 20kg/ha

K₂O- 20kg/ha

FYM- @ 5 to 10 tonnes/ha

Irrigation

Kharif season, generally does not require any irrigation.

First Irrigation- 25-30DAS

Second Irrigation- 40-45DAS.

Diseases and pest management:

Head smut: seed treating with Thiram @2.5 g/kg of seed or hot water treatment (55⁰C for 7-12 min).

Bacterial streak: seed treatment with 5% magnesium arsenate @ 1 g of the chemical in one kg of seed.

Shoot fly: Apply Phorate @15 kg/ha (10% granules) in the soil at the time of field preparation or Carbofuran (Furadan) 3% granules @ 30 kg/ha in furrows or as broadcast before sowing.

Harvesting and Yield:

Proso millet is ready for harvest after 65-75 days of sowing in most of the varieties. The seeds in the tip of upper heads ripe and shatter before the lower seeds and later panicles get mature.

Grain- 20-25qtl/ha

Straw- 50-60qtl/ha