



Pennisetum glaucum

Family name: Poaceae

Common name: Poaceae

Local name: (دخن) Dukhun



Cultivated



Role in Biodiversity

Pearl millet is highly productive compared to major cereals under harsh weather conditions such as drought, thus supporting life for many species in its ecosystem. It is also able to thrive in high salinity soils, where it maintains its good nutritive value. It can be used to increase the economic value of marginal saline soils.



Environment and Growing

Pearl millet can be grown on a wide variety of soil types, ranging from clay loam to sandy loamy soil. It performs well in soils with a high salinity.

Growth requirements:

- Temperature for growth ranges 23-30 °C.
- Annual rainfall ranges 125-900 mm.
- PH range 4-5.



Reproduction and Communication

Pearl millet is cross-pollinated, with flowers opening on the inflorescent spike from the top down. Crosspollination of pearl millet by wind, where the female organs mature early compared to the male (pollen) of the hermaphrodite, and sometimes self-pollination may occur.



Life span

Depending on the variety, the millet life span range is 70 to 120 days.



Size

Pearl millet stalks can grow up to 1.5 to 3 metres high.



Parts



Stems are cylindrical and solid with upright side shoots (tillers).

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Roots are, fibrous, deep, and fast growing.



Leaves are alternate, simple, blade linear, pubescent and minutely serrated.



Flowers are green in 12 to 30 cm long brown Spikes.



Fruits are simple spikes



Seeds are nearly white, yellow, brown, and grey.

INTRODUCTION

Herb- grass

Pennisetum glaucum, pearl millet, is an annual grass species cultivated in tropical areas for its edible grain. It is characterized by fibrous roots, upright, cylindrical and solid stem, inflated leaf sheaths, and small, different coloured grains on erect spikes.

It has been grown in Africa and the Indian subcontinent since prehistoric times. It was domesticated very early in the Sahel zone and now it is widely distributed across the semi-arid tropics of Africa and Asia. The United Nations declared 2023 the International Year of Millet with the aim of raising awareness and increasing the production and consumption of millet grains. Millet is considered a healthy food for humans with low water and input requirements for its cultivation.

In Sudan, pearl millet is the second most-important cereal crop, after sorghum, in both area and total production. The average annual cultivated area in Sudan is about 6 million acres. About 95% of this area is cultivated in the western states of Kordofan and Darfur, then Gedaref, Kassala, Blue Nile and New Halfa. It is the preferred staple food crop for people in western Sudan.

LIVELIHOODS / CULTURE

Cultivation

Land preparation: According to the type of soil, the cultivation area and the irrigation method, either in the form of basins or **ahwad**, or in the form of rows, **sarabat**. The appropriate time to prepare the land, from removing parasitic weeds and ploughing the land, is usually before autumn with sufficient time (May-June) and then the seeds are sown to benefit from the soil moisture.

Seeds sowing: Seeds sowing depend on the rainy season. In traditional rain-fed agriculture in Western Sudan or in the jabrakas, small farms next to the house that women cultivate to secure food for the family. The best planting dates are mid-June. Sometimes it is delayed to the first week of August. Seeds are usually scattered by hand.

Watering: The ideal amount of rain is 125-600 mm.

Harvesting: Depending on the variety, millet is harvested in 70-120 days from the date of planting. The period required for the maturity of local varieties is about 120 days, while the period required for the maturity of improved varieties is about 85 days

Storage and distribution: Farmers have invented various traditional storage systems, including silos or **soaiba**, which are dug and prepared in a simple way to store and preserve grains, and their capacity is between 8-14 sacks depending on their depth. There is also the **dabanga**, which is a large container made of clay and animal dung, which has a capacity of between 1-5 sacks. The green plant serves as forage.

Cultural Value

Millet is the staple food for most of the people of Kordofan and Darfur, where the main daily dish, a porridge called **asida**, is made from it.

Millet stems are considered one of the basic building materials, as they are used in the roofs of the **qatati** in western Sudan.

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Cultural Expressions

[Separation of millet grains \(after harvest\) in Kordofan](#)

<https://shorturl.at/AGITj>

THREATS

As a result of the exposure of the millet growing area in Sudan to waves of drought during the recent years, the majority of local varieties have become weak in production. These varieties have also been subjected to a lot of mixing and cross-pollination with varieties that entered the country during the drought years, which threatens the disappearance of the known local varieties.

The Millet Head Miner *Heliocheilus albipunctella*, known in Sudan as **Nafaasha**, is considered one of the most dangerous insects that infects millet, in addition to the stem borer, powdery mildew, rust, and budweed.

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