



# Triticum aestivum

Family name: **Poaceae**Common name: **Poaceae**

Local name: (قمح) Gamih



## Cultivated



### Role in Biodiversity

- Wheat forms a root network of 300,000 km per hectare. Thus improving the soil.
- Wheat is a valuable component of a balanced and sensible crop rotation system that keeps our agricultural land functional and vital, in addition to ensuring a stable and healthy ecosystem.
- Wheat is a food source for wide variety of wildlife components such as birds, rodents, and insects .



### Environment and Growing

- Deep, fertile, well aerated, well drained, loamy soil.
- Rainfall range 500-1300 mm.
- Temperatures range 21-24°C.
- PH range 5.5 and 7.5.
- Full daylight (at least six hours of sunlight daily).



### Reproduction and Communication

- Flowers are bisexual.
- Self pollinated
- Fertilized ovules develops into a one-seeded fruit with the fruit wall fused to the seed coat.



### Life span

135 to 180 days.



### Size

1.2 m heigh

### Parts

#### Stem

Stem is erect and smooth.

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#### Roots

Roots are fibrous.

#### Leaves

Leaves are linear, in two rows on either side of the stem with larger 'flag' leaves at the top.

#### Flowers

Flowers are small , green, in a simple spikes.

#### Fruits

Fruits are simple spikes.

#### Seeds

Seeds range from almost spherical to long, narrow and flattened, light tan to brown.

## INTRODUCTION

### Herb

*Triticum aestivum*, wheat, is an erect grass with a fibrous root system cultivated mainly for its grains. It is widely adapted crop grown from temperate, irrigated to dry and high-rain-fall areas and from warm, humid to dry, cold environments. It is domesticated first in West Asia during the early Holocene, and spread from there to North Africa, Europe and East Asia in the prehistoric period. It is characterized by producing spikes with light tan to brown seeds.

In Sudan, it is cultivated mainly in Al Jazeera, new Halfa, Al-Rahda, Nile River State, Northern State, and White River State. Wheat is the most important food grain after sorghum and millet. It is considered the main food for the people of northern Sudan, and it has also become an important food even in areas that consume sorghum.

## LIVELIHOODS / CULTURE

### Cultivation

**Land preparation:** Wheat is grown between November to February when the coolest weather prevails. The growing season in Gezira is usually warmer and shorter than that of the Northern province or Khshim El-Geiba. Land preparation for wheat starts in late September or soon after the end of the raining season. The usual operations are ploughing, clod crushing and levelling. Wheat is very sensitive to water logging, requiring a special attention to land levelling.

In traditional farming, farmers start by manually plowing the land with the **wasog**. Sometimes they use cows to help them pull the attachments, especially on hard ground. They then remove any previous agricultural residues or weeds from the field and design irrigation channels according to the soil level. Usually all members of the community are involved in the land leveling step.

**Seeds sowing:** When the soil is ready to plant seeds, farmers usually use simple tools, **seloka, toria, and jalamoy**, to make holes in equal intervals. Wheat sown is broadcast by hand in rows 20 cm apart. All community members usually participate in this step.

**Watering:** The land irrigated immediately after sowing especially if pre-watering was not practiced. A fortnight interval

should be followed leading to 6-7 irrigation during the season. Wheat will not grow well with either too much or too little water. Farmers depend on the flow of water from large canals connected to rivers on a slope, so the water flows into small streams according to gravity. In case of water shortage, farmers use small pumps to help them lifting water from the main canals. In rain-fed agriculture, farmers do not need irrigation channels. The groundwater after rain is sufficient until harvest time. Men usually do this effort.

**Weeding:** Weeding is also by hands using special tools, **malod, jeraya, and hashasha**. All community members usually participate in this step.

**Cutting and Collection:** Delay in harvest leads to excessive loss to shattering and bird and rat damage in the field. Farmers complete harvest in late February or early March. They cut the wheat spikelets by hand using sharp tools such as sickles and collect them in a specific place called "taqa", an area of land that is not cultivated but is used after the harvest to collect the grain and clean it after separating it from the stalks. This effort is usually done by men.

**Threshing:** The threshing floor is cleared of weeds and soil cracks and sometimes smoothed with mud mixed with weed residue. Using sticks, they hit the wheat spikes. In the past, this process was of great importance. Rituals and preparations were made, including food and drink. Relatives were usually invited from distant villages. Depending on the size of the crop, the process could last for several days. The process of separating the grain is accompanied by encouraging songs

**Cleaning:** The process of cleaning the grains after separating them from the spikelets is reserved for women. They separate the grains from any unwanted parts and then thresh as a final step. Often the grains are scattered in the air to get rid of impurities instead of using sieves.

**Grain Storing and distribution**

Finally, the cleaned grain is stored in a al suwaiba, or in some villages the whole crop is buried in the ground in a pit called matmora.. This is usually done as a place to store the entire community's harvest. Farmers use donkeys and karo (a small two-wheeled cart pulled by a donkey) to distribute people's share of the harvest. They also use the karo to transport the harvest to sell it at local markets. Men and young boys usually do the labor.

**Straw, field stubble:** All parts of the wheat except the grain are used as fodder, but in some cases the wheat stalks are left in the field to be grazed by animals. All of these practices are usually shared among community members: men, women and young children who are usually relatives.

### Cultural Value

- Bread, also called **raqeef**, is one of the main pastries made from wheat, in addition to traditional recipes such as **qurasa, asida**, and baked goods for happy occasions, especially weddings.
- Balila** and **mukhbaza** are traditional dishes that contain wheat.
- Stems of wheat are used as hut walls or **rowakeeb**, filling materials in roofs of buildings as well as in roofs of animal shelters **zareeba**.
- Leaves and stems are very important forage for sheep, goats, and cows.
- Dry wheat stalks and leaves are used to prepare a coating for mud buildings known as **zibala**. This coating is a fermented animal dung to which sand, dry wheat stalks and leaves are added. **Zibala** is used every year as protection for mud buildings from rain.

### Medicinal and health uses

In many areas of Sudan, wheat grains are eaten raw as a laxative in cases of chronic constipation.

### Cultural Expressions

Sudanese folk proverbs

"If you let beautiful person to grow , he will grow into wheat"

Song: [October Al Akhder](#)

## THREATS

- Climatic and soil conditions - wheat grows best in 'temperate' regions, i.e. not in the tropics or in arctic regions. It can tolerate relatively dry conditions but does not handle flooding well.
- Wheat consumption in Sudan has risen dramatically in recent years to a stage where bread has become a major part of the diet of urban Sudanese, replacing **kisru**, the traditional sorghum-based staple. The Government of Sudan and the donors who assist it are faced with the dilemma of increasing wheat consumption, rising costs of the wheat subsidy and dependence on imports as well as an unwanted domestic surplus of sorghum in good years. When sorghum prices rose, during bad seasons, wheat prices usually remained the same while the price of **kisra** rose. So while the consumer substituted **kisra** with bread, the producer replaced wheat with the more profitable crop sorghum, thus widening the wheat deficit further.
- Herbivores — a number of insect herbivores can drastically affect wheat growth and yield.
- Diseases — a variety of diseases, caused by fungi, bacteria and other agents affect wheat growth.

- [The Wheat Trap- film:](#)
- <https://www.sslh.online/en/posts/on-the-wheat-trap>

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