

MORPHOBIOLOGICAL PROPERTIES OF *POACEAE* FAMILY REPRESENTATIVES

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Annotation: This family includes annuals, biennials and perennials, partly woody plants, belonging to 600 genera and about 10,000 species, distributed in almost all parts of the globe. Uzbekistan grows 271 species of plants belonging to 91 genera of wheat.

Keywords: *Poaceae*, family, root, stem, leaf, flower, ontogeny, pollinator, seed, tree, mountain, hill, depth

Introduction: The root of wheatgrass consists of a set of additional roots, the poplar is structural. Stem 182 cylindrical, grows erect, divided into joints. The stems of wheat plants are called straw or straw stalks. The leaves are simple, arranged in two rows at the joints. The leaf consists of two parts: the lower part, which surrounds the stem - the leaf sheath, and the leaf, which is curved, lanceolate, ovate or ovate.

At the base of the leaf, or at the site of its separation from the vagina, is a small, slender, hairy tumor. It is called tongue. When the tongue is wet, it prevents water from entering the leaf sheath. The flowers of wheatgrass are mainly pollinated by wind. Due to their adaptation to wind-pollination, the leaves of the cauliflower have become very short or completely lost, and the number of pollinators has also decreased in most representatives. That is why the flower of wheat is unique.

The flowers are small, colorless, bluish, without flowers, in a shortened simple inflorescence - in spikes. The spikes have 1-10 or more flowers, which are arranged in a complex inflorescence, such as spike, sota, rhubarb. The flowers are bisexual or unisexual. Regardless of how many flowers there are, each spike is surrounded by two (bottom and top) spikelets at the bottom. Inside it is the main part of the flower, surrounded by two flower stalks - pollinators and seeders. The fleshy and larger lower flower stalk, which emerges from the spike axis of the flower stalk, is called the smaller, thinner, and finer upper flower stalk, which emerges from the opposite bouquet.

Figure 1. Stem and leaf structure of corns

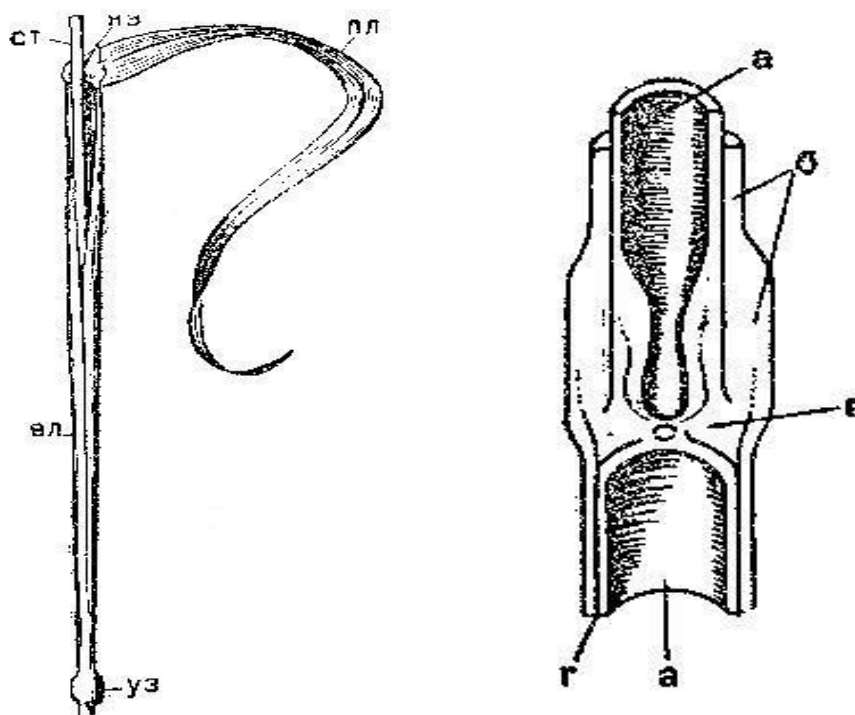


Figure 2. The process of branching and accumulation of the root

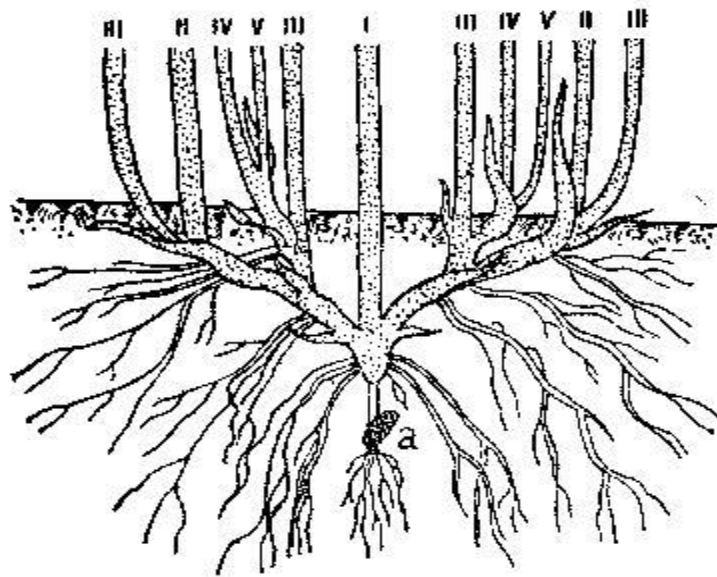


Figure 3. The structure of the flower

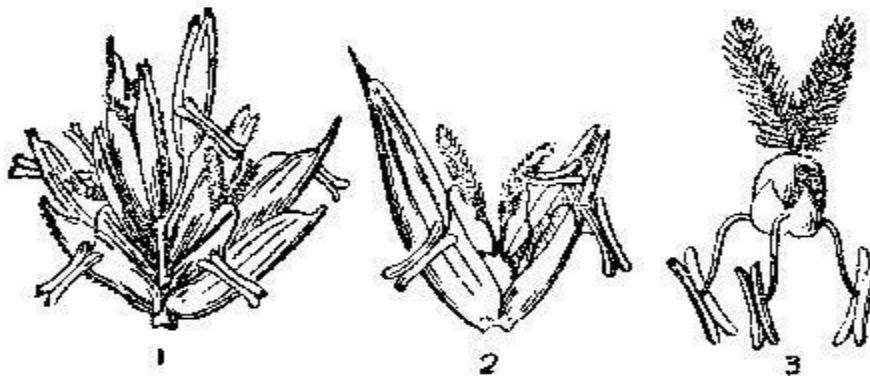
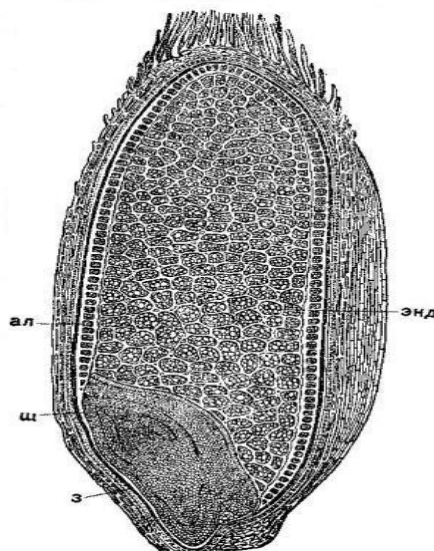


Figure 4. Appearance of fruit (grain)



Most of the pollinators are 3, sometimes 2 or 6. The seeds are single, formed by the addition of 2-3 fruits, the stem is short, the beak is 2-3, the stalk is branched. The node has an upper, one-chambered and one seed stalk. The fruit is a dry, unripe, single-seeded grain fruit (grain). It is difficult to give them a single general flower formula because the flowers of the representatives of the wheat are so diverse, but the flower diagram can be described as shown in Fig 3. An example of wheat is barley, which is widely distributed in our country. An annual herb of the genus *Kilkon afa*, 15-40 cm tall. It can be found along ditches, roadsides, hills and foothills. *Kilkon afa* sprouts in early May. Its stems and leaves are very smooth. The width of the leaf does not exceed 4 mm. It sprouts in late April and blooms in May. The ball is a spike. The spikes are arranged in clusters of 3 on the ridges on the axis of the inflorescence.

In the plains at the top of the hill and in the middle of the mountain grows onion barley with a height of 50-150 cm. It is called rye, *harduma*, *taktak*, *togarpa*. Rye is a perennial herb of the genus *Afa Afa*, which produces onions at the bottom of the stem, 4-5 cm below the ground.

This species is one of the plants that form the natural grasslands of the republic. To prepare the hay, it is harvested in late May - early June, when it blooms. There are 7 species of barley in Uzbekistan, 2 of which are cultivated for grain, and the rest are wild.

In Uzbekistan, there are very few people who do not know the weed called Allepp corn or gumay. Gumay is a perennial herb of the genus *Corn*, 50-150 cm tall. It grows mainly among irrigated crops, especially in cotton fields, causing great damage to yields. 7 varieties of corn grow in Uzbekistan. Of these, 6 are cultivars other than sorghum and are grown for grain, sorghum, silage and as a food plant in general. Another well-known weed is tar weed. The bulbous perennial herb belonging to the brownish family of bulbous wheatgrass family. 26 species of bells grow in Uzbekistan.

One of the main sources of food and a plant that has been cultivated since ancient times - wheat, rice, millet, corn and corn also belong to the wheat family. Most spores are annuals or perennials. Their stems are usually thin (0.3-0.5 cm) cylindrical, with a hollow space between the joints and It does not branch from head to toe, except for the upper part near the flowers. The leaves are arranged in two rows. They consist of a long cylindrical sheath around the stem and a long plate with a thin line. There is a tongue at the exit of the vaginal plate, the tongue is in the form of a very small curtain-like tumor or in the form of lashes, the shape of its size and other features play an important role in the system of spines. The morphological nature of the tongue is less clear, and systematists often consider it to be two adjoining leaves; The biological role of the tongue is such that it prevents water from falling between the stem and the vagina. The base of the vagina is usually slightly thicker, forming a clearly visible, slightly convex leaf joint. *smaydi*. The lower part of the joint, which is surrounded by the vagina, remains in the form of a thin soft meristematic tissue for a long time. The intercolar development of the stem occurs here for a long time (Fig. 1).

As mentioned above, whether in perennials or annuals, from the lower part of the stem to the ground or in some places branches on. There are several clusters of clusters, each of which has a bud that turns into a new underground branch, and from the bottom of the new branch forms a new cluster. When many grains are branched, 3-5 sometimes form 10-12 or more stems; Up to 30 or more stems are formed in the stalks that grow in hayfields. From the many-year-old accumulation nodes of corns emerge a few long branches that grow horizontally in the soil and replace the rhizome. Such plants are called rhizomes in haymaking.

The leaves of the rhizomes are in the form of small whitish or brown coins, which are actually formed only from the leaf sheaths. Additional roots emerge from almost all nodes of the rhizome. It turns upwards a little farther from the first accumulation node and turns the above-ground stem. At the same time, a new accumulation node is formed under the soil, which forms above-ground branches and new underground rhizomes. Subsequent development of the rhizome and the formation of underground branches, ie vegetative development, take place in the same scheme. Vegetative propagation of cereals in sandy and loamy soils also occurs with the help of long-spreading and rooting branches or stolons on the ground, which also form stems that stand upright at some nodes (simple brown-*Poa trivialis*, sometimes reed, etc.). Without long horizontal rhizomes from the cluster of clusters of grains, they go horizontally or curved for a very short distance, and then turn upwards (Fig. 2, 1) or long-standing, parallel to the mother stem (2 -picture, 2) comes out.

The flowers of the cotyledons are collected, forming many simple flowers - cobs, which in turn are collected in complex clusters (Fig. 3); The ball consists of spikes with very short bands on the axis of the flower or without bands. complex corn (rye, wheat, barley, etc.); Among them are broom-shaped inflorescences (timofevka, foxtail, etc.) with a large number of branches, which are densely covered with spikes. Occasionally, inflorescences are less common. Each spike has 1-10, sometimes more bisexual, sometimes unisexual flowers (Fig. 3). Most plants have two spike-shaped coins at the bottom of the spike, the lower coin, and a slightly larger upper coin in front of it, slightly higher. On top of these coins there are flowers on the axis of a spike, each of which looks almost like a compact coin, almost cylindrical or slightly curved on both sides when not yet opened.

At the base of each flower there are two flower petals located opposite each other, which surround the lower petal, which is slightly larger or thicker. Many spikes emerge from the tip or middle or bottom of the lower flower bud, their length (0.5-50 cm) and shape vary in their variety. The stalk is homologous to the morphologically reduced leaf blade, while the flower coin itself is homologous to the leaf sheath.

Inside the flower there are two very small and delicate white curtains between the flower petals, called pre-flower petals or lodikula, in addition, in the same place there are three paternal and one maternal, the maternal node has two short columns. The pillars have long sloping or sloping beaks (or beaks without columns).

There are other explanations about the morphological nature of the flowers of cornflowers. For example, some morphologists consider lodikula with the upper flower coin not as the remains of a flower, but as flower petals, and therefore their flowers are considered bare. The fact that both lodicles are usually joined at the base and in front of the upper tangent in the flowers confirms this somewhat.

When the cotyledons are in bloom, the lodikula swells considerably, pushing out the flower buds, and the stems protrude from the flower with the beak, while the paternal threads lengthen rapidly due to the overgrowth of turgor. All cereals are pollinated by wind - anemophilic. Dustbins are connected to the dust threads by their central part; they sway in the wind, and when the wind blows for a while, they break up the dust that has accumulated at the bottom of the cracked dust-like crater with a longitudinal crack.

The flowers in the multi-flowered spikes open from the bottom of the spike to the tip. This is called acropetal flowering.

In complex spikes and slender broom-like inflorescences, flowering begins at the top of the inflorescence and spreads down and up at the same time and evenly. This is an acrophasopetal type flowering. In broom-shaped inflorescences, first the flowers in the three spikes open and the flowering spreads from here. This is called phasopetal type flowering. Most of the peacocks are pollinated from abroad. Types of self-pollinated cereals that produce usually unopened cleistogamous flowers include wheat, barley, oats, millet, rice, and wild cereals.

The fruits of this family are grains, the characteristic feature of which is that the seed coat joins the fruit. Rarely does bamboo bear fruit in the form of nuts or berries. Grains of some species or varieties are available in yellow, gray, red, black and other colors. The stalks of the lower flower buds have a large number of stalks, which evaporate a lot of water and help the ripe grains to get more nutrients. In the non-slip species, the ustitsa is abundant at the tip of the coin.

Most of the grain (74%) consists of starchy endosperm, cereals are grown for the same endosperm. Its aleyron or adhesive the outer layer, called the outer layer, is composed of thick-walled cells and is rich in proteins (aleyron grains), fats, and vitamins (Figure 4). The embryo is located at the base of the grain and is separated from the endosperm by a structure called the thyroid, which is the only seed layer of the thyroid gland. After ripening, the grain spills from the inflorescence, and in the wild it spills with densely packed flower buds in some spikes, and in some spikes with spikes.

Conclusion

The fruits of wild corn are spread mainly by wind, which is facilitated by a variety of feathers, stalks, elastic light flowers or spikelets, etc. The thorns on the fruits of some of them, covered with loops, stick to the hair of animals and spread in this way.

When it emerges, the grains of the corn remain in the thyroid gland: its cells secrete enzymes, elongate, and absorb nutrients from the endosperm. The first leaf is wrapped in a tube, the tip is hard and comes out in the form of a vagina, which is as sharp as a beak, it is called a coloptille (patcha). "Patcha" helps the bud to pass through the soil, and then cracks the neck and passes the emerging leaves.

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