

226. **ZEA** Linnaeus, Sp. Pl. 2: 971. 1753.

玉蜀黍属 *yu shu shu shu*

Chen Shouliang (陈守良); Sylvia M. Phillips

Annual. Culms robust, often tall with stilt roots, solid. Leaf blades large, broadly linear; ligule membranous. Inflorescences terminal and axillary, spikelets unisexual, separated into male and female inflorescences, not disarticulating at maturity, spikelets of a pair alike. Female inflorescence axillary, enclosed in enveloping foliaceous sheaths; spikelets all sessile in many longitudinal rows, partially sunk in the thickened, almost woody axis, glumes and lemmas chaffy, awnless, lower floret sterile; styles single, very long, silky, pendulous from inflorescence apex. Male inflorescence terminal, of many digitate or paniculate racemes; one spikelet of a pair subsessile, the other on a slender pedicel, papery, awnless, both florets staminate. Mature caryopses plump, much larger than spikelet scales, very variable in shape and color.  $x = 5$ .

Five species: four wild species in Central America; one species cultivated in all warm parts of the world, including China.

1. **Zea mays** Linnaeus, Sp. Pl. 2: 971. 1753.

玉蜀黍 *yu shu shu*

Culms erect, 1–4 m tall. Leaf sheaths with transverse veinlets; leaf blades 50–90 × 3–12 cm, glabrous or with tubercle-based hairs, margins scabrid, midvein stout; ligule ca. 2 mm. Female inflorescence a cylindrical “cob,” with 16–30 rows of spikelets; glumes equal, veinless, margins ciliate; florets hyaline. Male inflorescence a “tassel” of many digitate racemes; spikelets 9–14 mm, unequally pedicellate, one pedicel 1–2 mm, the other 2–4 mm; glumes subequal, membranous, lower ca. 10-veined, margins ciliate, upper 7-veined; lower lemma and palea hyaline, subequal; upper lemma smaller than lower. Anthers orange, ca. 5 mm. Fl. and fr. summer–autumn.  $2n = 20, 40, 80$ .

Widely cultivated in China [originating in America; widely cultivated elsewhere].

This plant (maize, corn) was first domesticated in Central America about 7000 years ago and is now the third most important crop in the world. The many cultivars are grown for cereal or forage, and it is also an important source of oil, syrup, and alcohol.

