



TRITICUM AESTIVUM

Bread Wheat

An erect, tufted annual up to 1 m tall. *Culms* arising from the base, unbranched above, erect or slightly bent at the base, smooth, hairless. *Nodes* smooth, not pigmented. *Leaves* basal and on the culms, green. *Leaf sheaths* smooth, striate, moderately loose, shorter than the internodes. *Ligule* a membranous rim about 2 mm long, laterally extended into clasping ears or auricles bearing scattered, long, silky hairs. *Leaf blades* flat, somewhat flaccid, 10–20 mm wide and up to 30 or more cm long, smooth, not hairy.

Inflorescence a single contracted spike, 5–12 cm long, the internodes of the rachis 3–6 mm long. *Spikelets* (S) 12–15 mm long, solitary, broad and flat, arranged flatwise in an alternating series, disarticulating at maturity above the glumes and between the florets, with or without awns, smooth to shortly hairy. *Florets* 2–5, bisexual, or with the upper ones sterile. *Glumes* (G_1 , G_2) about $\frac{3}{4}$ the length of the spikelet, similar, asymmetrical, 5–7-nerved and often irregularly cross-veined, keeled in the upper part, especially towards the sharply pointed tip, which is slightly rough; the lower glume (G_1) may be slightly hairy on the margin near the base. *Lemmas* (L) all alike, more or less symmetrical, exserted from and longer than the glumes, sharply pointed, rigid, many-nerved, broad, keeled, rough on the keel, awned (slightly or with a rough awn up to 8 cm long) or awnless. *Paleas* (P) slightly shorter than the lemma, papery, 2-nerved and 2-keeled, with the flaps of the keels almost meeting, slightly hairy on the keels in the upper part. *Anthers* 3, 3–4 mm long, yellow.

Wheat is often found growing wild because of its widespread cultivation. As a crop species, its importance goes without saying and its cultivation extends considerably into the tropics, where there is sufficient winter rain. Because barley and oats also are grown in the region, it is often necessary to tell these species apart while still in the vegetative stage of growth. Oats may be distinguished by having no auricles (ears), whereas both wheat and barley have auricles. In wheat, the auricles have scattered, long, silky hairs, whereas in barley, the auricles are hairless. A rule of thumb is as follows: Wheat (+ hairs, + ears), barley (+ ears, – hairs), oats (– ears, – hairs).

REFERENCES

Bailey (1902), p. 1920; Gardner (1952), pp. 197–98 (as *T. vulgare*); Burbidge and Gray (1970), p. 56; Willis (1970), p. 118; Beadle *et al.* (1972), p. 640; Black (1978), pp. 142–43; Jessop (1981), pp. 432–33.

KEY TO SPECIES

Although *T. aestivum* is the main wheat grown in the region, some other species also may be found. A good key to the species is found in Gardner (1952), p. 198.