

***Hordeum vulgare*** L. subsp. ***vulgare***, CULTIVATED (SIX-ROW) BARLEY (including BEARDLESS BARLEY). Annual, fibrous-rooted, many-stemmed at base (tillering), principal shoots unbranched, erect with terminal inflorescences, in range 25–85 cm tall, with both fertile and later formed sterile shoots; shoots to 6-leaved, glabrous, conspicuously scabrous, at maturity inflorescence generally nodding and shoot often reclined. **Stems (culms)**: cylindric, tough, to 5.5 mm diameter, glaucous below each node; internodes hollow. **Leaves**: alternate distichous, simple with sheath; sheath open, to 190 mm long (flag leaf), smooth, striped with pale veins, with lobes (auricles) at top, auricles clasping and crescent-shaped 3.5–6 mm long, whitish arising from white color; ligule membranous, truncate, 1–2(–4) mm long, translucent-milky, short-ciliate, persistent; blade linear-lanceolate and long-acuminate, to 250 × 4–19 mm, the widest near base, flat, entire, parallel-veined with well-defined midrib sunken on upper surface and raised on lower surface, minutely scabrous along veins, upper surface with minor veins slightly sunken. **Inflorescence**: spikelets, in terminal, dense, “spike,” spike cylindric, 70–100 × 15–20 mm (excluding awns), with 10–24 nodes, spikelets in alternate distichous sessile clusters of 3, with spikelets in 6 vertical rows (6-ranked), long-awned, spikelet with 1 floret, often sterile at the lowest 2 nodes, flowering when emerging from sheath of flag leaf; peduncle glabrous, not scabrous, terminated by conspicuous rim, awned; rachis strongly flattened, edges and inner face just above node densely short-tomentose, glabrous and glossy on outer faces and beneath fruits. **Spikelet**: central spikelet sometimes slightly > lateral spikelets, breaking above glumes; **glumes** 2, both formed on outer (lemma) side of spikelet so not clearly paired with spikelet, awned, subequal, linear, in range 8–15 × 1 mm (including awn), outer glume of each lateral spikelet slightly > other glume of spikelet, stiff and flat, 3-veined, glaucous, pubescent below midpoint and scabrous above midpoint + awn, the awn straight, 1–5 mm long; rachilla prolonged behind palea as a puberulent axis < 3 mm long; **lemma** awned, lanceolate, 15–35 mm long, of bearded barley form < 20 mm long + a long, terminal awn, rounded on back, 5-veined and with minute teeth along large veins, glaucous especially below midpoint, the awn erect to suberect, 50–160 mm long, 3-veined, scabrous; of beardless barley form (so-called var. *trifurcatum*) oddly 3-lobed at tip (lemmas at the lowest nodes sometimes unlobed and broadly needlelike), central lobe folded and typically inrolled, 4–8 × 2–4 mm, often hooded, sometimes with a downward-pointing awn and other appendages from hooded tip, the lateral lobes spreading, flat, long-acuminate sometimes with awn at tip, the awn 1–15 mm long; **palea** inrolled around flower and later around developing fruit, as long as lemma, transparent-green membranous with 2 submarginal green veins, not 2-keeled, with V-shaped channel at base. **Flower**: bisexual (sterile); **perianth (lodicules)** 2, free, ± rectangular to asymmetrically ovoid or wedge-shaped, 1–2.2 mm long, translucent, villous above midpoint or with a tuft of hairs at tip, persistent beneath palea on developing fruit; **stamens** 3, free; filaments threadlike, 2.5 mm long, whitish; anthers sometimes exerted, dorsifixed, dithecal, linear, 2.5–3 mm long, pale yellow, longitudinally dehiscent; pollen white; **pistil** 1; ovary superior, weakly 2-lobed obovoid compressed side-to-side, 1.1–2.3 mm long, glabrous below and canescent above midpoint, 1-chambered with 1 ovule; styles 2, ascending, ca. 1.5 mm long, stigmatic above midpoint, colorless, feathery (shaggy-plumose). **Fruit**: achene (caryopsis), tightly enclosed within straw-colored lemma and

palea, oblanceoloid, 10–12 × 3.5 mm, orange-brown, short-hairy at top 1/4, with persistent white styles at tip. Late February–early June.

Naturalized. Annual domesticated forms of barley used in animal feed and occasionally encountered in range near horse stables, in both SMM and SH. *Hordeum vulgare* is best known as having long awns and six vertical rows of fruits, but in range has also been found a beardless form (beardless or pearl barley) known in the literature as var. *trifurcatum*, which has distinctive, three-lobed lemmas on most, but not all, spikelets. This is one of the few species in the flora with awned glumes, a feature of barley, but the observer can be tricked and must learn to recognize that the two glumes are both displaced to one side of each spikelet.

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