

104. ELYTRIGIA Desvaux, Nouv. Bull. Sci. Soc. Philom. Paris 2: 190. 1810.

偃麦草属 yan mai cao shu

Braconotia Godron, nom. illeg. superfl.

Plants perennial, with or without rhizomes. Leaf sheath of cauline leaves split almost to base. Spike erect or nodding, linear; rachis usually not disarticulating. Spikelets 1 per node, sessile, clearly laterally compressed, with 3–10 florets; rachilla disarticulating below glumes. Glumes oblong, ovate, or lanceolate, unequal, usually asymmetric, distinctly (3–)5–7-veined, with transverse scar at base. Lemma lanceolate, 5–7-veined, rounded abaxially or keeled only at apex; callus usually glabrous. Palea slightly shorter than lemma, ciliate along keels. Caryopsis usually adherent to lemma and palea, oblong, with longitudinal groove adaxially. $x = 7$.

About 40 species: subtropical and warm-temperate regions; two species in China.

In addition, the following five species have been recorded as cultivated in China (FRPS 9(3): 105–109. 1987): the mainly European *Elytrigia elongata* (Host) Nevski, *E. intermedia* (Host) Nevski, *E. juncea* (Linnaeus) Nevski, and *E. trichophora* (Link) Nevski, and the North American *E. smithii* (Rydberg) Nevski.

These species are very valuable hay and pasture plants.

- 1a. Plants with long rhizomes; culms not tufted; leaf blade 0.5–1 cm wide; spike 10–18 cm; lemma apex acuminate or with awn to 8 mm 1. *E. repens*
- 1b. Plants with short rhizomes; culms usually densely tufted; leaf blade to 0.3 cm wide; spike 7–11 cm; lemma apex with awn 15–23 mm 2. *E. gmelinii*

1. *Elytrigia repens* (Linnaeus) Desvaux ex B. D. Jackson, Index Kew. 1: 836. 1893.

偃麦草 yan mai cao

Plants with long rhizomes. Culms not tufted, green, glaucous, or purplish green, 40–80 cm tall, 3–5-noded, smooth. Leaf sheath smooth, glabrous but pilose at base; ligule ca. 0.5 mm; leaf blade flat, 10–20 × 0.5–1 cm, abaxial surface smooth, adaxial surface scabrous or pilose. Spike erect, 10–18 × 0.8–1.5 cm; rachis smooth but margin hispidulous; internodes 10–15 (–30) mm. Spikelets 10–18 × 6–10 mm, with 5–7(–10) florets, glabrous. Glumes subequal, 4–15 mm, 5–7-veined, smooth, glabrous, margin membranous, apex with point 1–2 mm or awn 4–8 mm. Lemma oblong-lanceolate, 6–12 mm, apex acuminate or with awn to 2 mm or 4–8 mm. Palea slightly shorter than lemma, ciliate along keels. Anthers yellow, ca. 5 mm. Fl. and fr. Jun–Sep.

Valleys, grasslands, pastures, meadows, field margins, waste places; 500–1900 m. Gansu, Hebei, Heilongjiang, Nei Mongol, Qinghai, Shandong, Sichuan, Xinjiang, Xizang, Yunnan [India, Japan, Korea, Mongolia, Russia; C and SW Asia, Europe; introduced in North America].

This species is one of the world's most valuable range grasses.

- 1a. Glumes 4–8 mm; lemma 6–10 mm 1c. subsp. *elongatiformis*
- 1b. Glumes 10–15 mm; lemma ca. 12 mm.
 - 2a. Glume and lemma apex both with awn 4–8 mm 1b. subsp. *longearistata*
 - 2b. Glume apex usually with point 1–2 mm; lemma apex acuminate or with awn to 2 mm 1a. subsp. *repens*

1a. *Elytrigia repens* subsp. *repens*

偃麦草(原亚种) yan mai cao (yuan ya zhong)

Triticum repens Linnaeus, Sp. Pl. 1: 86. 1753; *Agropyron junceum* (Linnaeus) P. Beauvois var. *repens* (Linnaeus) M. Marsson; *A. repens* (Linnaeus) P. Beauvois; *Braconotia officinarum* Godron, nom. illeg. superfl.; *Elymus repens* (Linnaeus) Gould; *T. infestum* Salisbury, nom. illeg. superfl.; *Zeia repens* (Linnaeus) Lunell.

Glumes 10–15 mm, apex usually with point 1–2 mm. Lemma ca. 12 mm, apex acuminate or with awn to 2 mm. Fl. and fr. Jul–Aug. $2n = 42^*$.

Pastures, meadows, waste places. Gansu, Hebei, Heilongjiang, Nei Mongol, Qinghai, Shandong, Sichuan, Xinjiang, Xizang, Yunnan [India, Japan, Korea, Mongolia, Russia; C and SW Asia, Europe; introduced in North America].

1b. *Elytrigia repens* subsp. *longearistata* N. R. Cui, Fl. Xinjiang. 6: 602. 1996.

芒偃麦草 mang yan mai cao

Glumes 10–15 mm, apex with awn 4–8 mm. Lemma ca. 12 mm, apex with awn 4–8 mm. Fl. and fr. Jun–Aug.

- Valleys, field margins; 500–1900 m. Xinjiang.

1c. *Elytrigia repens* subsp. *elongatiformis* (Drobow) Tzvelev, Novosti Sist. Vyssh. Rast. 10: 31. 1973.

多花偃麦草 duo hua yan mai cao

Agropyron elongatiforme Drobow in Vvedensky et al., Key Fl. Tashkent 1: 40. 1923; *A. repens* subsp. *elongatiforme* (Drobow) D. R. Dewey; *Elymus elongatiformis* (Drobow) As-sadi; *E. repens* subsp. *elongatiformis* (Drobow) Melders; *Elytrigia elongatiformis* (Drobow) Nevski.

Glumes 4–8 mm. Lemma 6–10 mm. Fl. and fr. Jun–Sep.

Valleys, grasslands. Xinjiang [Mongolia, Russia].

2. *Elytrigia gmelinii* (Trinius) Nevski, Trudy Bot. Inst. Akad.

Nauk SSSR, Ser. 1, Fl. Sist. Vyssh. Rast. 2: 78. 1936.

曲芒偃麦草 *qu mang yan mai cao*

Triticum gmelinii Trinius, *Linnaea* 12: 467. 1838 [“*gmelinii*”]; *Agropyron aegilopoides* Drobow; *A. gmelinii* (Trinius) P. Candargy (1901), not (Ledebour) Scribner & J. G. Smith (1897); *A. strigosum* (M. Bieberstein) Boissier subsp. *aegilopoides* (Drobow) Tzvelev; *A. propinquum* Nevski; *Elymus aegilopoides* (Drobow) Voroschilov; *Elytrigia aegilopoides* (Drobow) Peshkova; *E. propinqua* (Nevski) Nevski; *E. strigosa* (M. Bieberstein) Nevski subsp. *aegilopoides* (Drobow) Tzvelev; *Pseudoroegneria strigosa* (M. Bieberstein) Á. Löve subsp. *aegilopoides* (Drobow) Á. Löve.

Plants with short rhizomes. Culms usually densely tufted, geniculate at base, 35–65 cm tall, smooth, glabrous. Leaf sheath smooth, glabrous; ligule short; leaf blade glaucous, flat or margin involute, to 0.3 cm wide, abaxial surface smooth, glabrous, adaxial surface puberulent. Spike erect, secund, 7–11 cm; rachis margin scabrous. Spikelets glaucous or purplish, 13–18 mm excluding awns, with 5–7 florets. Glumes narrowly lanceolate, 5-

or 6-veined, glabrous, apex acuminate or with awn to 4 mm; proximal glume 6–9 mm; distal glume 7–10 mm. Lemma narrowly lanceolate, 10–11 mm, hispid; awn curved, 15–23 mm. Fl. and fr. Jun–Aug. $2n = 14$.

Forest grasslands; ca. 2000 m. Xinjiang [Mongolia, Russia (Siberia)].

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