

BOUTELOUA CURTIPENDULA VAR. TENUIS (POACEAE: CYNODONTEAE),
NEW TO TEXAS AND THE UNITED STATES AND
A KEY TO *B. CURTIPENDULA* VARIETIES

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ABSTRACT

The occurrence of *Bouteloua curtipendula* (Michx.) Torr. var. *tenuis* Gould & Kapadia is reported new to Texas and the United States. A key to *B. curtipendula* varieties in the U.S.A. is provided, along with digital photos of features distinguishing between them.

RESUMEN

Se reporta la ocurrencia de *Bouteloua curtipendula* (Michx.) Torr. var. *tenuis* Gould & Kapadia, nueva para Texas y los Estados Unidos. Se provee una clave para las variedades de *Bouteloua curtipendula* en E.E.U.U. y fotografías digitales mostrando características que las distinguen.

Prior to this report the occurrence of *Bouteloua curtipendula* (Michx.) Torr. var. *tenuis* Gould & Kapadia (CREEPING SIDEOATS GRAMA) in naturalized populations has not been recorded in Texas and the United States (Gould & Kapadia 1964; Gould 1979; Hatch et al. 1990; Allred 1993; Powell 1994; Jones et al. 1997; Wipff 2003; Hatch 2008; Flora of Texas Database 2008). Specimens of this taxon were collected in July 2001 but were not identified for a period of time because var. *tenuis* had not been described in botanical treatments of Texas or U.S.A. grasses.

This grass was identified using Gould and Kapadia (1964) and verified using specimens in the Tracy Herbarium (TAES) from Mexico that included the holotype (*Gould 9000* TAES).

The three varieties of *B. curtipendula* are readily identified if specimens are collected carefully. Specimens with intact bases showing either a caespitose (bunchgrass) habit, or rhizomes, or stolons are critical to the identification process. The rhizomes must be more than short tillers prior to that structure becoming an erect stem. The varietal differences are noted in the key below and distinguishing morphological features are depicted in Figs. 1, 2, and 3. It is likely that var. *tenuis* in Texas established from seed dispersed by livestock (e.g., cattle, sheep, or goats) from populations in northern Mexico. A review of autecology of *B. curtipendula* can be found in Tomas (2004).

KEY TO *BOUTELOUA CURTIPENDULA* VARIETIES IN THE UNITED STATES

1. Plants caespitose or rarely with short knotty rhizomes _____ ***B. curtipendula* var. *caespitosa***
1. Plant stoloniferous or with long rhizomes.
 2. Plants stoloniferous, rhizomes present or absent _____ ***B. curtipendula* var. *tenuis***
 2. Plants with long rhizomes _____ ***B. curtipendula* var. *curtipendula***

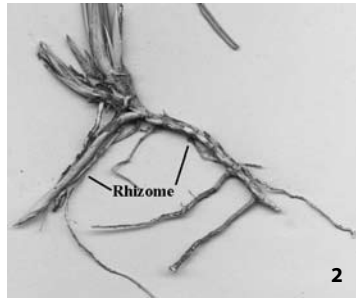
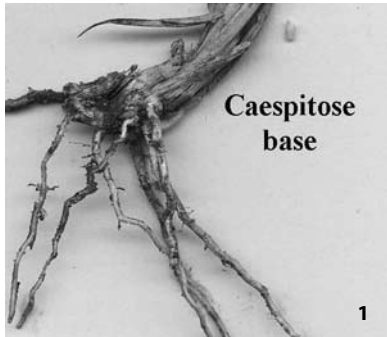


FIG. 1. Digital image of the caespitose base of *Bouteloua curtipendula* var. *caespitosa*.

FIG. 2. Digital image of the plant base of *Bouteloua curtipendula* var. *curtipendula*. Note the rhizomatous specimen base.

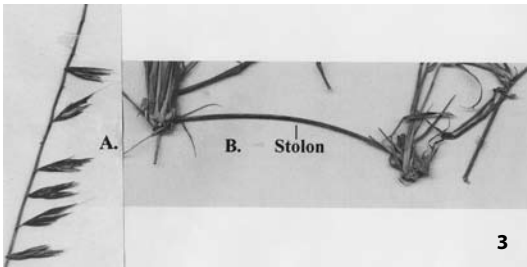


FIG. 3. Digital image of (A.) inflorescence and (B.) the plant base of *Bouteloua curtipendula* var. *tenuis*. Note the long stolon at the base.

Bouteloua curtipendula (Michx.) Torr. var. **tenuis** Gould & Kapadia, *Gould & Kapadia, Brittonia* 16:201–203. 1964. CREEPING SIDEOATS GRAMA.

Stoloniferous perennials. Culms ascending, slender rhizomes absent from Texas specimens (see discussion in Gould & Kapadia 1964). Leaves with long, thin but broad (3–5.5 mm wide) leaf blades. Panicles of 16–35 spicate primary branches; branches 1–3.5 cm long with 4–9 widely spaced spikelets. Spikelets 3.4–8 mm long, florets 2–4, apical ones rudimentary, rachilla not extending beyond upper floret, rudiment 3-awned; glumes 2, 1-veined, unequal, shorter or longer than first floret; lowermost lemmas 2.9–6.5 mm long, 3-veined, acute or trifid, mucro minute; lowermost paleas present. Flowering June to October.

Voucher specimens examined: **UNITED STATES: TEXAS. Sutton Co.:** TAES Sonora Experiment Station, Sonora, TX (31 18'N; 100 ° 28'W) oak juniper mottes with *B. curtipendula* var. *caespitosa*, *B. curtipendula* var. *curtipendula*, *Nassella leucotricha*, and *Carex planostachys*, *Tomas s.n.* (TAES). **MEXICO. Zacatecas:** 10 mi NW of Sombrerete, 30 Oct 1959, *Gould 9000* (holotype) (TAES).

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