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**A New Species of *Trisetum* and a New Variety of
Panicum imbricatum from the Hawaiian Islands**

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HAWAII AGRICULTURAL EXPERIMENT STATION.

***Trisetum inaequale*, new species (fig. 1).**

Perenne, culmi caespitosi 30-40 cm. alti glabri, vaginae 5-15 mm. longae glabrae vel hispidulae, ligulae 1 mm. longae, laminae involutae 20-30 cm. longae glabrae, paniculae 3-6 cm. longae, spiculae 6-7 mm. longae 1-3-floriferae, glumae inaequales glabrae cum carinis scabris primae 3.5-3.7 mm. longae 1-nervosae angustae acuminatae secundae 4.5-6 mm. longae 3-nervosae acutae, lemmatae scaberulae 5-6 mm. longae aristae 1-2 mm. longae, palea 3 mm. longae.

Tufted perennial; culms 30-40 cm. tall, glabrous; sheaths extremely short, 1-2 cm. long, striate, glabrous or hispidulous, lower ones chartaceous; ligule 1 mm. long, membranous; blades involute, usually almost capillary, strikingly elongate, often extending beyond the panicle, 20-30 cm. long, usually glabrous but occasionally scaberulous within; panicles 3-6 cm. long, compact, spike-like, globose, shining, silvery or tawny, rachis villous; spikelets 6-7 mm. long, loosely 1-3-flowered, in close clusters; glumes transparent except the nerves, keeled, scabrous on keel but otherwise glabrous, unequal; first glume 3-3.7 mm. long, 1-nerved, narrow, acuminate, 0.3-0.5 mm. from keel to margin; second glume 4.5-5 mm. long, 3-nerved, broad, acute, 0.7-1.0 mm. from keel to margin; lemmas 4-6 mm. long, scaberulous, with a delicate straight awn 1-2 mm. long borne on the back 0.7-1.5 mm. from the minutely bifid apex, rachilla sparsely villous; palea 3 mm. long, exposed, shining, scaberulous on keel; anthers narrow, 1-1.2 mm. long, yellow; stigmas 1-1.5 mm. long, silvery, plumose.

Hawaiian islands: Lanai, Kaohai, March 19, 1916, *G. C. Munro* 264; West Maui, Olowalu Valley, left-hand ridge at edge of *pali*, May 10, 1920, *C. N. Forbes* 2296 (type in Bishop Museum).

This new species comes closest to the Hawaiian *Trisetum glomeratum* (Kunth) Trin. and the Arctic alpine *Trisetum spicatum* (L.) Richt. of Europe and America. The new species can be distinguished from these two by the following characters. *Trisetum glomeratum*



FIGURES 1-2.—*Trisetum inaequale* and *Panicum imbricatum* var. *oreoboloides*.
 1, *Trisetum inaequale*: a, habit view; b, spikelet; c, glumes; d, floret; 2, *Panicum imbricatum* var. *oreoboloides*: a, habit view; b, spikelet.

has its glumes equal or nearly so; the first glume 4.7-6 mm. long and 0.7 mm. from keel to margin; the second glume 5-6 mm. long and 1 mm. from keel to margin; panicles 10-20 cm. long; leaf sheaths 4-12 cm. long; blades thick-coriaceous, 10-25 cm. long, 2-7 mm. wide. *Trisetum spicatum* has its first glume 3-4 mm. long; second glume 3.5-5 mm. long; lemmas with rather stout geniculate awn borne on the back 1.7-2.2 mm. from apex; blades 5-15 cm. long, 2-5 mm. wide. *Trisetum inaequale* has its glumes decidedly unequal; the first glume 3-3.7 mm. long and 0.3-0.5 mm. from keel to margin; the second glume 4.5-5 mm. long and 0.7-1 mm. from keel to margin; lemmas with a straight delicate awn borne from the back 0.7-1.5 mm. from apex; panicles 3-6 cm. long; leaf sheaths 1-2 cm. long; blades delicate, involute, 20-30 cm. long.

Panicum imbricatum Hillebr. var. ***oreoboloides***, new variety (fig. 2).

A *P. imbricatum* laminae involutae rigidae in superficibus tomentosae differunt.

Hawaiian islands: Kauai, Wahiawa Swamp, August 1909, *C. N. Forbes 184* (type in Bishop Museum).

This variety differs from the species in having involute, rigidly erect leaf blades that are densely villous within. It is named in allusion to its striking resemblance to the sedge, *Oreobolus furcatus* H. Mann.