

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
ABERDEEN, IDAHO

and

OREGON AGRICULTURAL EXPERIMENT STATION
OREGON STATE UNIVERSITY
CORVALLIS, OREGON

NOTICE OF RELEASE OF COMMON THREESQUARE
FOR LAND RESOURCE REGION D NORTH
SELECTED CLASS OF NATURAL GERMPLASM

The Natural Resources Conservation Service, U.S. Department of Agriculture and the Oregon Agricultural Experiment Station announce the release of a Selected ecotype of Common Threesquare (*Scirpus pungens*) for Land Resource Region (LRR) D North.

As a Selected release, this plant will not be given a name, but will be referred to as the Malheur selection of Common Threesquare to document its original collection location. The Malheur selection is released as a Selected Class of certified seed (natural track).

This alternative release procedure is justified because existing commercial sources of Common Threesquare are inadequate. Propagation material of specific ecotypes is needed for ecosystem restoration, enhancement, and construction of wetlands. The potential for immediate use is high, and commercial potential beyond specific wetland uses is probably limited. No commercial cultivars of Common Threesquare have been released at this time.

Species:	<i>Scirpus pungens</i> Vahl
New Name:	<i>Schoenoplectus pungens var. pungens (Vahl) Palla</i>
Synonymy:	<i>Scirpus americanus auct. non Pers.</i>
Common Name:	Common Threesquare
Plant Symbol:	SCPU3, SCPUP5
Accession Number:	9057610

The scientific name for Common Threesquare has been changed from *Scirpus pungens Vahl* to *Schoenoplectus pungens var. pungens (Vahl) Palla*. Taxonomists have found that Common Threesquare more appropriately fits into the genus *Schoenoplectus*. We have chosen to release it as *Scirpus pungens* because of public recognition and familiarity.

Source: Malheur National Wildlife Refuge, south of the town of Burns, Harney County, Oregon.

Collection area Information: Stands are located within Malheur NWR. Very little variability among SCPU3 stands was observed within the boundaries of the Refuge. This variability was judged to be inconsequential. Therefore, any collection of SCPU3 located within the Refuge boundary would be considered a constituent of this Selected Release. A majority of SCPU3 stands were found with heavy concentrations of *Juncus balticus* (JUBA), however, the seeds of

JUBA are significantly smaller than SCPU3 so confusion should not occur. Elevation is approximately 4100 feet. The soils are mostly poorly drained calcareous loams.

Method of Selection: From a Common Threesquare collection found in Land Resource Region (LRR) D North, which includes Major Land Resource Regions (MLRAs) 21, 23, 24, 25, 26, and 27.

A total of 12 SCPU3 collections from the Aberdeen PMC Service Area were evaluated from 1991 to 1995. All collections were evaluated for survival, overall growth and spread, vigor, and potential seed production. Of these 12 collections, three were from D North. The Malheur collection outperformed all other collections from D North and from the PMC Service Area. The Malheur selection of Common Threesquare was selected for its seed production potential, height, rapid spreading from rhizomes, vigor, shoot density per unit area, and owner stability of population. This accession needs special seed treatment and stratification procedures to achieve acceptable germination rates.

Description: *Scirpus pungens* is a perennial, rhizomatous, wetland obligate. Stems are upright, triangular, and grow up to 3 feet tall. The leaves are small, borne near the base, blades are elongate or reduced when the plant grows in shallow water rather than on wet ground. Inflorescence consists of a sessile, compact cluster of 1 to 8 spikelets which protrudes from the base of a prominent green bract, (1 to 6 inches) which appears as a continuation of the stem. Scales yellowish-brown to reddish-brown, thin, with a firm midrib. Bristles barbellate, 4-6, often unequal, not exceeding the achene. Achene 2.2-3.3 mm long (including the evident, slender stylar apiculus of about 0.5 mm) and 1.6-2.3 mm wide.

Anticipated Conservation Use: The potential uses of the Malheur selection of *Scirpus pungens* include erosion control, Constructed Wetland System applications, wildlife food/cover, wetland creations and restorations, and for increasing plant diversity in wetland and riparian communities. Its tendency to spread rhizomatously makes the Malheur selection an excellent plant for soil stabilization in sites which are saturated or have up to 6 inches of standing water. The rhizomes also form a matrix for many beneficial bacteria making this plant an excellent choice for wastewater treatment.

Potential Area of Adaptation: *Scirpus pungens* is an obligate wetland plant and is found throughout the Intermountain West. It commonly inhabits poorly drained soils which are saturated or have up to 6 inches of standing water. It will tolerate periods of inundation and drought. The Malheur selection would be an excellent choice for use throughout the ecoregion defined as LRR D north.

Seed Maintenance: Breeders seed will NOT be maintained by the USDA-NRCS Plant Materials Center. To make collections of the Malheur selection of Common Threesquare, contact the Refuge Manager, Malheur National Wildlife Refuge, U.S. Fish and Wildlife Service, HC 70 Box 245, Princeton, OR 97721, (503) 493-2612. All collections will be limited to Growers ONLY. For official seed certification Selected tags to verify genetic identity of these plant materials, make application to the Oregon Seed Certification Service, (514) 737-4513, sixty days prior to collection. Seed certification is voluntary; a fee for this service is involved.

Signature sheet for release of a selected class of:

Malheur Selection of Common Threesquare (*Scirpus pungens*) for Land Resource Region (LRR) D North from Malheur National Wildlife Refuge, south of the town of Burns, Harney County, Oregon.

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