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Acorn storage alternatives tested on Oregon white oak

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ABSTRACT

We assessed various combinations of storage factors: bag type, temperature, duration, and antifungal pre-storage treatments for white oak acorn storage, using Oregon white oak (*Quercus garryana* Douglas ex Hook. [Fagaceae]) acorns from 7 seed sources. Acorn viability remained high (84%), even after 2 y of refrigerated storage, but the majority of these acorns germinated between 6 and 12 mo after entering storage. Germination during storage differed significantly by seed source. The likelihood of successful storage of Oregon white oak acorns was increased by placing washed, healthy-appearing acorns in storage at a near-freezing temperature (1.6 °C [35 °F]) soon after collection. Sealed conventional freezer bags or specialized gas-permeable plastic bags were equally effective in maintaining viability. For 6-mo storage under the best treatment combination, 77% of acorns remained viable but ungerminated in storage, compared to 89% viability prior to storage.

Devine WD, Harrington CA, Kraft JM. 2010. Acorn storage alternatives tested on Oregon white oak. *Native Plants Journal* 11(1):65–76.

KEY WORDS

germination, seeds, *Quercus garryana*

NOMENCLATURE

USDA NRCS (2009)