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35. © In vitro propagation of *Trillium* species with notes on root formation, cleaning protocols, and media formulations. Gagliardo, R., Labarthe, M., Zaic, M., and Cruse-Sanders, J. *Native Plants Journal* 13(1):56-63. 2012.



In vitro propagation of *Trillium* species

WITH NOTES ON ROOT FORMATION, CLEANING PROTOCOLS, AND MEDIA FORMULATIONS

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ABSTRACT

For decades, trilliums (Liliaceae) have been collected from the wild for their beauty and medicinal properties. As a potential way to help alleviate the pressure from collecting and to advance the science of micropropagation, we examined past methods of *in vitro* propagation of *Trillium* and conducted our own preliminary experiments. We report our observations on the establishment of sterile cultures of *Trillium persistens* Duncan and *T. reliquum* J.D. Freeman along with further observations on root formation, cleaning, and media composition. We promote the use of *in vitro* techniques in the propagation of trilliums and recommend their application to the conservation of species that are threatened by collecting or habitat loss.

Gagliardo R, Labarthe M, Zaic M, Cruse-Sanders J, Determann RO. 2012. *In vitro* propagation of *Trillium* species with notes on root formation, cleaning protocols, and media formulations. *Native Plants Journal* 13(1):56–63.

KEY WORDS

Liliaceae, tissue culture, conservation, *Trillium persistens*, *Trillium reliquum*

NOMENCLATURE

USDA NRCS (2011)

Figure 1. *Trillium persistens* Duncan (Liliaceae). Photo by Joel McNeal