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Depth of Dormancy and Desiccation Tolerance in Acer trautvetteri Medv. Seeds

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<u>Abstract:</u> This first exploratory study on the seed physiology of Acer trautvetteri, a broadleaved tree found in Caucasia and northern Turkey, demonstrated that A. trautvetteri seeds exhibit physiological dormancy and require about 3 months of chilling for complete dormancy loss. Germination percentages significantly increased with the chilling duration and were 38.67%, 76.00%, and 96.00% after 1, 2, and 3 months of chilling, respectively. Moreover, while the seeds can be safely dried to at least 10% moisture content, reducing the moisture content to 3% killed all the seeds. Acer species exhibit different seed characteristics in terms of seed dormancy existence and desiccation sensitivity. This research showed that A. trautvetteri is one of the Acer species the seeds of which have seed dormancy and are desiccation tolerant.

Key Words: Acer trautvetteri, seed physiology, dormancy, chilling

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