

Germination under aseptic conditions of different ecotypes of wild beet (*Beta vulgaris* L. ssp *maritima*)

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Abstract:

The characterization of the wild beet relatives, as well as their use for the selection of useful traits, is limited by difficulties associated with the germination of these plants. Currently available germination protocols deliver low percentage, unsynchronised and lengthy germination. We tested several procedures likely to weaken the woody/corky structure where the seeds are enclosed, the glomerule. Our results show that with an H₂O₂ treatment [30% (v/v) twice for one hour], followed by aseptic hand scarification and incubation in half-strength Murashige and Skoog it is possible, within days, to establish a synchronized culture due to successful germination, 40 to 90% depending on the ecotype.