

Germination Responses to GA₃ and Stratification of Threatened *Festuca* L. Species from Eastern Mediterranean

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The seed germination characteristics of three threatened *Festuca* sp. [*F. punctoria* Sm., *F. cyllenica* Boiss. et Heldr. subsp. *uluana* Markgr.-Dannenb., *F. paphlagonica* (St.-Yves) Markgr.-Dannenb. subsp. *paphlagonica*] were investigated. These species are endemic and spread on alpine belt. The study was carried out with wet-cold and dry-cold stratification throughout 15 days, different doses of GA₃ (50, 100 and 150 ppm) and hormone-stratification combined treatments, and non-treatment series. We found that the germination rates of three fescue seeds for various treatment series were different. The mean germination percentage of *F. cyllenica* was higher (80%) than that of *F. punctoria* and *F. paphlagonica* which were fairly low (50–60%). Germination rates increased by wet-stratification treatment in *F. punctoria* and also increased with 100 ppm GA₃ application to the seeds of *F. paphlagonica*. When taken into consideration the germination percentages of all fescue species, the seeds of *F. punctoria* and *F. paphlagonica* can be dormant, but the seeds of *F. cyllenica* are non-dormant.

Key words: *Festuca* sp., Germination, Threatened Species