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DORMANCY LEVEL AND DORMANCY-BREAKING PRETREATMENTS IN SEEDS OF *FRAXINUS ORNUS* SUBSP. *CILICICA*

Mustafa Yilmaz* and Fatih Tonguç

Kahramanmaraş Sütçü İmam University, Faculty of Forestry, Department of Silviculture,
46100 Kahramanmaraş, Turkey, *Fax: + 90 344 280 17 82, *E-mail: mustafayilmaz@ksu.edu.tr

REFERENCES

Alvarez-Aquino C., Williams-Linera G. (2002). Seedling bank dynamics of *Fagus grandifolia* var. *mexicana* before and after a mast year in a Mexican Cloud Forest. Journal of Vegetation Science, 13: 179-184.

Arrillaga I., Marzo T., Segura J. (1992). Embryo culture of *Fraxinus ornus* and *Sorbus domestica* removes seed dormancy. HortScience, 27: 371.

Baskin C. C., Baskin J. M. (1998). Seeds. Ecology, biogeography, and evolution of dormancy and germination. San Diego, Academic Press, 666 pp.

Baskin J. M., Baskin C. C. (2004). A classification system for seed dormancy. Seed Science Research, 14: 1-16.

Bewley J. D., Black M. (1994). Seeds: physiology of development and germination. Plenum Press, New York, 445 pp.

Bonner F. T. (2008). Fraxinus. *In:* Bonner F. T., Karrfalt R. P. (Eds). Woody plants seed manual, USDA Forest Service, Agriculture Handbook, 727: 537-546.

Browicz K. (1984). Chorology of trees and shrubs in south-west Asia and adjacent regions. Vol. 3, Polish Academy of Sciences, Institute of Dendrology, Poznan, Polish Scientific Publishers, Warszawa-Poznan: 20-21.

Copeland L. O., McDonald M. B. (1999). Seed science and technology. Kluwer Academic Publishers, Boston, 409 pp.

Dancheva D., Iliev I., Scaltsoyiannes A., Tsaktsitra M., Tsoulpha P. (2010). Effect of medium on *in vitro* germination of embryos of *Fraxinus excelsior* L. Oltenia Journal for Studies in Natural Sciences, 26: 34-38.

Dommée B., Geslot A., Thompson J. D., Reille M, Denelle N. (1999). Androdioecy in the entomophilous tree *Fraxinus ornus* (Oleaceae). New Phytologist, 143: 419-426.

Drăghici C., Abrudan I. V. (2011). The effect of different stratification conditions on the germination of *Fraxinus angustifolia* Vahl. and *F. ornus* L. seeds. Notulae Botanicae Horti Agrobotanici Cluj-Napoca, 39: 283-287.

Fenner M., Thompson K. (2005). The ecology of seeds. Cambridge University Press, Cambridge, 250 pp.

Fraxigen (2005). Ash species in Europe: biological characteristics and practical guidelines for sustainable use. Oxford Forestry Institute, University of Oxford, UK, 128 pp.

ISTA (1996). International rules for seed testing. Seed Science and Technology (Supplement), 24: 1-335.

Muller C., Laroppe E., Bonnet-Masimbert M. (1999). Further developments in the redrying and storage of prechilled beechnuts (*Fagus sylvatica* L.): effect of seed moisture content and prechilling duration. Annals of Forest Sciences, 56: 49-57.

Piotto B. (1994). Effects of temperature on germination of stratified seeds of three ash species. Seed Science and Technology, 22:519-529.

Piotto B., Di Noi A. (Eds) (2003). Seed propagation of Mediterranean trees and shrubs. ANPA, Roma, 108 pp.

Piotto B., Piccini C. (1998). Influence of pretreatment and temperature on the germination of *Fraxinus angustifolia* seeds. Seed Science and Technology, 26:799-812.

Raquin C., Jung-Muller B., Dufour J., Frascaria-Lacoste N. (2002). Rapid seedling obtaining from European ash species *Fraxinus excelsior* (L.) and *Fraxinus angustifolia* (Vahl.). Annals of Forest Sciences, 59: 219-224.

Schmidt L. (2000). Guide to handling of tropical and subtropical forest seed. Danida Forest Seed Centre, Denmark, 511 pp.

Suszka B., Muller C., Bonnet-Masimbert M. (1996). Seeds of forest broadleaves, from harvest to sowing. INRA, France, 295 pp.

Tylkowski R. W. (1990). Mediumless stratification and dry storage of after-ripened seeds of *Fraxinus excelsior* L. Arboretum Kornickie, 35: 143-152.

Verdú M. (2004). Physiological and reproductive differences between hermaphrodites and males in the androdioecious plant *Fraxinus ornus*. Oikos, 105: 239-246.

Verdú M., González-Martínez S. V., Montilla A. I., Mateu I., Pannell J. R. (2006). Ovule discounting in an outcrossing, cryptically dioecious tree. Evolution, 60: 2056-2063.

Verdú M., Spanos K., Čaňová I., Slobodník B., Paule L. (2007). Similar gender dimorphism in the costs of reproduction across the geographic range of *Fraxinus ornus*. Annals of Botany, 99: 183-191.

Villiers T. A., Wareing P. F. (1965). The growth-substance content of dormant fruits of *Fraxinus excelsior* L. Journal of Experimental Botany, 16: 533-544.

Yaltirik F. (1978). Systematic revision of native taxa of Oleaceae in Turkey. Istanbul University, Faculty of Forestry, Publivation No: 2404/250, Çelikcilt Press, Istanbul, 118 pp. (in Turkish)

Yilmaz M. (2005). The researches on the physiology of oriental beechnuts (*Fagus orientalis* Lipsky.). PhD Thesis, Istanbul Univer-

sity, Institute of Science, 170 pp.
Yilmaz M. (2006) The prechilling method at controlled moisture content in breaking seed dormancy. Istanbul University, Journal of Faculty of Forestry, B series, 56: 135-145. (in Turkish)
Yilmaz M., Tonguç F. (2009). Fruit and seed size variability of *Fraxinus ornus* subsp. *cilicica*. International Journal of Natural and Engineering Sciences, 3: 122-125.
Yilmaz M., Tonguç F. (2013). The effects of temperature on the germination of *Fraxinus ornus* subsp. *cilicica* seeds. Dendrobiology, 69: 111-115.