



**CONTROLLING THE CONTAMINATION OF *BERBERIS VULGARIS*
EXPLANTS IN VITRO**

Mahin Salami^{1,*}, Bahram Abedy¹, Leila Samiei², Hossein Nemati¹

¹Department of Horticulture, Faculty of Agriculture, Ferdowsi University of Mashhad, Mashhad, Iran

²Department of Ornamental plants, Research center for plants Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

E-mail: salami.mahin67@yahoo.com

Berberis is one of the valuable nutritional and medicinal plants. This experiment was carried out for achieving the best method for sterilization of berberis explants in vitro. Because one of the main problems in berberis in vitro culture is the high fungal and bacterial contamination. Though in the current experiment the efficacy of different disinfectants like sodium hypochlorite, mercuric chloride, various antibiotics as well as Benomyl as fungicide were evaluated on sterilization of axillary buds of *Berberis vulgaris*. The explants were cultured on WPM media after disinfection. The data collection began after 3 days of culture and continued to day 40. The results showed that the application of 0.5% Benomyl for 10 minute followed by immersing the explants in 70% ethanol for 1 minute and 0.1 % mercuric chloride for 8 minute produced the highest number of intact explants.

References

- [1] Abdi, G.; Salehi, H.; Khosh-Khui, M.; *Acta Physiol Plant* **2008**, 30,709-14.
- [2] Bon, M-C.; Gendraud, M.; Franclet, A.; *Scientia Horticulturae* **1988**, 34,283-91.
- [3] Bunn, E.; Dixon, K.; Langley, M.; *Plant Cell Tiss Organ Cult* **1989**, 19, 77-84.
- [4] Chalupa, V.; *European Hardwoods. In, Bonga JM, Durzan D, editors. Cell and Tissue Culture in Forestry, Springer Netherlands.* 1987, p. 224-46.
- [5] Debergh, PC.; Maene, L.; *Scientia Horticulturae* **1981**,14,335-45.