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IN VITRO PROPAGATION OF *AMSONIA ORIENTALIS* DECNE. FROM NODAL SEGMENTS OF ADULT PLANTS

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REFERENCES

Adel E., Mohamed E. A., Attia A. O., El Dessoky D. S. (2012). *In vitro* multiplication of the important medicinal plant, harmal (*Rhazya stricta* Decne). Journal of Medicinal Plants Research, 6: 3586-3590.

Ahmad N., Faisal M., Anis M., Aref I. M. (2010). *In vitro* callus induction and plant regeneration from leaf explants of *Ruta graveolens* L. South African Journal of Botany, 76: 597-600.

Balaraju K., Agastian P., Preetamraj J. P., Arokiyaraj S., Ignacimuthu S. (2008). Micropropagation of *Vitex agnus-castus*, (Verbenaceae) - a valuable medicinal plant. In Vitro Cellular & Developmental Biology-Plant, 44: 436-441.

Bern Convention (1979). Convention on the conservation of European wildlife and natural habitats. Convention relative à la conservation de la vie sauvage et du milieu de l'Europe, Appendix II, Bern/Berne, 19.IX.1979.

Christensen B., Sriskandarajah S., Serek M., Müller R. (2008). *In vitro* culture of *Hibiscus rosa-sinensis* L.: Influence of iron, calcium and BAP on establishment and multiplication. Plant Cell, Tissue and Organ Culture, 93:151-161.

Echeverrigaray S., Basso R., Andrade L. B. (2005). Micropropagation of *Lavandula dentata* from axillary buds of field-grown adult plants. Biologia Plantarum, 49: 439-442.

Ekim T., Koyuncu M., Vural M., Duman H., Aytaç Z., Adigüzel N. (2000). Red Data Book of Turkish Plants (Pteridophyta and Spermatophyta). Turkish Association for the Conservation of Nature and Van Centennial University Press, Ankara, 178 pp. (in Turkish).

Iliev I., Kitin P., Funada R. (2001). Morphological and anatomical study of *in vitro* root formation of Silver birch (*Betula pendula* Roth.). Propagation of Ornamental Plants, 1: 10-19.

Kanchanapoom K., Sunheem S., Kanchanapoom K. (2010). *In vitro* Propagation of *Adenium obesum* (Forssk.) Roem. and Schult. Notulae Botanicae Horti Agrobotanici Cluj-Napoca, 38: 209-213.

Kaur K., Verma B., Kant U. (1998). Plants obtained from the Khair tree (*Acacia catechu* Willd.) using mature nodal segments. Plant Cell Reports, 17: 427-429.

Kumar R., Sharma K., Agrawal V. (2005). *In vitro* clonal propagation of *Holarrhena antidysenterica* (L.) Wall. through nodal explants from mature trees. In Vitro Cellular & Developmental Biology-Plant, 41: 137-144.

Machakova I., Zazimalova E., George E. F. (2008). Plant growth regulators I: Introduction; auxins, their analogues and inhibitors *In*: George E. F., Hall M. A., De Klerk G. J. (Eds). Plant Propagation by Tissue Culture: The Background, vol. 1, 3rd Edition, Springer: 175-204.

Murashige T., Skoog F. (1962). A revised medium for rapid growth and bioassays with tobacco tissue culture. Physiologia Plantarum, 15: 473-497.

Nishitha K., Martin K. P., Ligimol, Shahanaz Beegum A., Madhusoodanan P. V. (2006). Micropropagation and encapsulation of medicinally important *Chonemorpha grandiflora*. In Vitro Cellular & Developmental Biology-Plant, 42: 385-388.

Nissen S. J., Sutter E. G. (1990). Stability of IAA and IBA in nutrient medium to several tissue culture procedures. American Society for Horticultural Science, 25: 800-802.

Nordström A.-C., Jacobs F. A., Eliasson L. (1991). Effect of exogenous indole-3-acetic acid and indole-3-butyric acid on internal levels of the respective auxins and their conjugation with aspartic acid during adventitious root formation in pea cuttings. Plant Physiology, 96: 856-861.

Özen F. (2006). Autecology of a species being endangered in Turkey: *Amsonia orientalis* Decne. (Apocynaceae). Journal of Balıkesir University Science Institute, 8: 4-9 (in Turkish).

Öz G. C., Yüzbaşıoğlu E., Erol O., Üzen E. (2008). *In vitro* propagation of *Amsonia orientalis* Decne (Apocynaceae). African Journal of Biotechnology, 7: 3638-3641.

Ozden-Tokatli Y., De Carlo A., Gumusel F., Pignattelli S., Lambardi M. (2008). Development of encapsulation techniques for the production and conservation of synthetic seeds in ornamental plants. Propagation of Ornamental Plants, 8: 17-22.

Purkayastha J., Sugla T., Paul A., Solleti S., Sahoo L. (2008). Rapid *in vitro* multiplication and plant regeneration from nodal explants of *Andrographis paniculata*: a valuable medicinal plant. In Vitro Cellular & Developmental Biology-Plant, 44: 442-447.

Raha S., Roy S. C. (2001). *In vitro* plant regeneration in *Hollerrhena antidysenterica* Wall., through high frequency axillary shoot proliferation. In Vitro Cellular & Developmental Biology-Plant, 37: 232-236.

Rani D., Talwar D., Nagpal A., Virk G. S. (2006). Micropropagation of *Coleus blumei* from nodal segments and shoot tips. Biologia Plantarum, 50: 496-500.

Rohr R., Iliev I, Scaltsoyiannes A., Tsoulpha P. (2003). Acclimatization of micropropagated forest trees. Acta Horticulturae, 616: 59-69.

Sherwood J. L. (1994). Applied aspects of plant regeneration (virus-free plants). *In:* Dixon R. A., Gonzales R. A. (Eds). Plant Cell

Culture - A Practical Approach, Oxford University Press: 135-138.
Sujana P., Naidu C. V. (2011). High frequency rapid plant regeneration from shoot tip and nodal explants of *Mentha piperita* (L.) - an important multipurpose medicinal plant. Journal of Phytology, 3: 9-13.
Tutin T. G., Heywood V. H., Burges N. A., Moore D. M., Valentine D. H., Walters S. M., Webb D. A. (1972). Flora Europaea, Vol. 3. Diapensiaceae to Myoporaceae. Cambridge University Press, Cambridge, 393 pp.