

FACTORS INFLUENCING CONVENTIONAL AND SEMI-AUTOMATED MICROPROPAGATION

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REFERENCES

- Alvard D., Cote F., Teisson C. (1993). Comparison of methods of liquid medium culture for banana micropropagation. *Plant Cell, Tissue and Organ Culture*, 32: 55-60.
- Birmeta G., Passoth V., Roos S., Welander M. (2004). Identification of bacteria and yeasts from *in vitro* and surface-sterilized field samples of *Ensete ventricoum* by rDNA analysis. *Biotechnology letters*, 26: 1867-1872.
- Cooke R. C. (1979). Homogenization as an aid in tissue culture propagation of *Platyserium* and *Davallia*. *HortScience*, 14: 21-22.
- Escalant J. V., Teisson C., Cote F. (1994). Amplified somatic embryogenesis from male flowers of triploid banana and plantain cultivars (*Musa* spp). *In Vitro Cellular and Developmental Biology-Plant*, 30: 181-186.
- Escalona M., Lorenzo J. C., Gonzáles B., Daquinta M., Fundora Z., Borroto C. G., Espinosa D., Arias E., Aspíolea M. E. (1998). New system for *in vitro* propagation of pineapple (*Ananas comosus* 8L.) Merr. *Pineapple News*, 5: 5-7.
- Etienne H., Lartaud M., Michaux-Ferriere N., Carron M. P., Berthouly M., Teisson C. (1997). Improvement of somatic embryogenesis in *Hevea Brasiliensis* (Müll. Arg) using the temporary immersion technique. *In Vitro Cellular and Developmental Biology-Plant*, 33: 81-87.
- Etienne-Barry D., Bertrand B., Vasquez N., Etienne H. (1999). Direct sowing of *Coffea arabica* somatic embryos mass produced in a bioreactor and regeneration of plants. *Plant Cell Reports*, 19: 111-117.
- Etienne H., Berthouly M. (2002). Temporary immersion systems in plant micropropagation. *Plant Cell, Tissue and Organ Culture*, 69: 215-231.
- Kritzinger E. M., Jansen Van Vuuren R., Woodward B., Rong I. H., Spreeth M. H., Slabbert M. M. (1998). Elimination of external and internal contaminants in rhizomes of *Zantedescia aethiopica* with commercial fungicides and antibiotics. *Plant Cell, Tissue and Organ Culture*, 52: 61-65.
- Lakshmi Sita G., Shobha Rani B. (1985). *In vitro* propagation of *Eucalyptus grandis* L. by tissue culture. *Plant Cell Reports*, 4: 63-65.
- Mølgaard J. P., Roulund N., Deichmann V., Irgens-Møller L., Andersen S. B., Farestveit B. (1991). *In vitro* multiplication of *Saintpaulia ionantha* Wendl. by homogenization of tissue cultures. *Scientia Horticulturae*, 48: 285-292.
- Teisson C., Alvard D. (1995). A new concept of plant *in vitro* cultivation liquid medium: Temporary immersion. *In: Terzi M., Cella R., Falavigna A. (Eds.). Current Issues in Plant molecular and Cellular Biology*. Kluwer Academic Publishers, Dordrecht: 105-110.
- Tisserat B., Vandercook C. E. (1985). Development of an automated plant culture system. *Plant Cell, Tissue and Organ Culture*, 5: 107-117.
- Welander M. (1985). *In vitro* shoot and root formation in the apple cultivar Åkerö. *Annals of Botany*, 55: 249-261.
- Welander M., Welander T., Brackman A. (1989). Regulation of *in vitro* shoot multiplication in woody species by different carbon sources. *Journal of Horticultural Science*, 64 (3): 361-366.
- Welander N. T. (1982). Micropropagation of *Pelargonium zonale* hybr. Report 21. Swedish University of Agricultural Sciences, Department of Horticultural Science, ISBN 91-576-1202-1 (in Swedish), 28 pp.
- Welander N. T. (1987). Propagation of *Syringa chinensis* cv. Saugeana by *in vitro* culture of nodal explants. *Journal of Horticultural Science*, 62 (1): 89-96.
- Zhu I. H., Li X. Y., Welander M. (2003). Micropropagation of the apple rootstock M25 by temporary immersion system (Tis). *Acta Horticulturae*, 616: 365-368.
- Zhu L. H., Li X. Y., Welander M. (2005). Optimisation of growing conditions for the apple rootstock M26 grown in RITA containers using temporary immersion principle. *Plant Cell, Tissue and Organ Culture*, 81: 313-318.