

Bibliography

- Afza, R., Roux. N., Brunner. H., Van Duren, M. and Morpurgo, R. (1994). *Musa* mutation Techniques for *Musa*. In: Jones, D. R., ed. The improvement and testing of *Musa*: a global partnership. Honduras: INIBAP., 207–208
- Alderson, P.G., Harbour, M. A. and Patience, P. A. (1987). Micropropagation of *Prunus tenella* cv. Firechill, *Acta Horticulture.*, **212**: 463-468.
- Al-Zahim, M. (1996). Induction of somatic embryogenesis and the use the RAPD to classify and to detect somaclonal variation in garlic (*Allium sativum* L.), pp.184. Ph.D. thesis, University of Birmingham, UK.
- Ammiraju, J. S. S., Dholakia, B. B., Santra, D. K., Singh, H., Lagu, M. D., Tamhankar, S. A., Dhaliwal, H. S., Rao, V. S., Gupta, V. S. and Ranjekar, P. K. (2001). Identification of inter simple sequence repeat (ISSR) markers associated with seed size in wheat. *Theor. Appl. Genet.*, **102**: 726-732.
- Ammirato, P.V., Sommers, D.A., Hackett, W.R. and Biesboer, D.D. (eds). (1987). Organizational events during somatic embryogenesis. In: *Green Plant Tiss. and Cell Cult.*, 57-81.
- Anderson, J.A., Churchill, G.A., Autroque, J.E., Tanksley, S.D., Swells. M.E. (1993) Optimising selection for plant linkage map. *Genome.*, **36** : 181-186.
- Antra Ghosh, T., Ganapathi, R., Pravendra Nath, V. and Bapat, A. (2009). Establishment of embryogenic cell suspension cultures and Agrobacterium-mediated transformation in an important Cavendish banana cv. Robusta (AAA). *Plant Cell Tiss. and Org. Cult.*, **97**: 131-139.
- Argent,G.C.G.(1976). The wild bananas of Papua New Guinea. Notes from Royal Botanic Garden Edinburgh., **35**: 77-114.
- Arinaitwe, G (1999). Determination of appropriate *In vitro* micropropagation protocols for recalcitrant banana cultivars. MSC. Thesis, Makerere University, Kampala, Uganda.
- Assani, A., Haicour, R., Wenzel, G., Cote, F., Bakry, F., Foroughi Wehr, B., Ducreux, G., Ambroise, A. and Grapin, A. (2001). Plant regeneration from protoplasts of dessert banana cv. Grand Naine (*Musa* spp., Cavendish sub-group AAA) via somatic embryogeneis. *Plant Cell Rep.*, **20**: 482-488.

- Atanassov, A. and Brown, D.C.W. (1984). Plant regeneration from suspension culture and mesophyll protoplast of *Medicago sativa* L. *Plant Cell Tiss. and Org. Cult.*, **3**: 149-162.
- Baker, J.G. (1893). A synopsis of the genera and species of *Musaceae*. *Ann. of Bot.*, (Oxford) **7**: 189–229.
- Banerjee, N. and De Langhe, E. (1985). A tissue culture technique for rapid clonal propagation and storage under minimal growth conditions of *Musa* (banana and plantain). *Plant Cell Rep.*, **4**: 351-354.
- Banerjee, N. and Sharma, A.K. (1989). Chromosome constitution and alkaloid content in *Rauwolfia* L. (*Apocynaceae*). *Cytologia.*, **54**: 723-728.
- Banerjee, N. and Sharma, A. K. (1988). *In vitro* response as a reflection of genomic diversity in long-term cultures of *Musa*. *Theor. Appl. Genet.*, **76**:733-736.
- Banerjee, N., Vuylsteke, D. and De Langhe E. (1986). Meristem tip culture of *Musa*: histomorphological studies of shoot bud proliferation, pp. 139-147. In: Plant Tissue Culture and its Agricultural Applications. Withers LA and Anderson PG (eds). UK: Butterworth Scientific Ltd.
- Barranco, L.A. (2000). Development of somatic embryogenesis in liquid media (*Musa* AAA cv. Great Dwarf). Thesis for the scientific degree of Master of Science in Plant Biotechnology. Institute of Plant Biotechnology. Universidad Central de Las Villas. Santa Clara, Cuba; 57p.
- Barranco, L.A. (2001). Somatic embryogenesis in banana (*Musa* AAAB, cv. 'FHIA-18') using liquid culture media. Option to the thesis presented in scientific degree of Doctor of Agricultural Sciences. Institute of Plant Biotechnology. Universidad Central de Las Villas. Santa Clara, Cuba; 107p.
- Barrett, C., Lefort, F. and Douglas, G.C. (1997). Genetic characterization of oak seedlings, epicormic, crown and micropropagated shoots from mature trees by RAPD and microsatellite PCR. *Sci. Horti.*, **70**:319-330.
- Bayliss, M.W. (1980). Chromosomal variation in plant tissues in culture. *International Review on Cytol.*, **11**: 113-114.
- Becker, D. K., Dugdale, B., Smith, M. K., Harding, R. M. and Dale, J. L. (2000). Genetic transformation of Cavendish banana (*Musa* spp. AAA group) cv. Grand Naine via microprojectile bombardment. *Plant Cell Rep.*, **19**: 229-234.

- Bennici Andrea., Anzidei Maria. and Vendramin Giovanni G. (2004). Genetic stability and uniformity of *Foeniculum vulgare* Mill. regenerated plants through organogenesis and somatic embryogenesis. *Plant Sci.*, **166**: 221-227.
- Benzoin, B. and Phillips, R.L. (1988). Cytogenetic stability of maize tissue cultures; a cell line pedigree analysis. *Genome.*, **30**: 318-325.
- Bhagyalakshmi, N. and Singh., Narendra, S. (1995). Role of liquid versus agar-gelled media in mass propagation and *ex vitro* survival in bananas. *Plant Cell. Tiss. and Org. Cult.*, **41**: 71-73.
- Bhansali, R. and Singh, K. (1982). Callus and shoot formation from leaf of sugarcane in tissue cultures. *Phytomorph.*, **12**: 167-170.
- Bhatia, C.R., Joshua, D.C. and Mathew, H. (1985). Somaclonal variation: a genetic interpretation based on the rates of spontaneous chromosomal aberrations and mutations. *Trends in Plants Res.*, 317-326.
- Bornet, B. and Branchard, M. (2001). Nonanchored inter simple sequence repeat (ISSR) markers: reproducible and specific tools for genome fingerprinting. *Plant Mol. Biol. Rep.*, **19**: 209 -215.
- Bornman, C.H. (1993). Micropropagation and somatic embryogenesis. In: Hayward, M.D., Bosemark, N.O. and Romagosa, I. (Eds.). *Plant Breeding, Principles and Prospects*. Chapman and Hall, London, pp. 247–260
- Botti, C. and Vsail, I.K. (1983). *Z Pflanzenphysiol.*, **111**: 319-325.
- Brouhns, G. (1957). Note sur la croissance du bananier Gros Michel. *Fruits.*, **12**: 261 – 268.
- Brown, D. and Atanassov, A. (1985) Role of genetic background in somatic embryogenesis in *Medicago*. *Plant Cell Tiss. Org. Cult.*, **4**: 111-122.
- Brown, D.C.W. (1988). Germplasm determination of *In vitro* somatic embryogenesis in *alfalfa*. *Horti. Sci.*, **23**:526-531.
- Brown, D.C.W. and Atanassov, A. (1986). Role of genetic background in somatic embryogenesis in *Medicago*. *Plant Cell Tiss. and Org. cult.*, **4**: 111-122.
- Brown, D.C.W., Finstad, K.I., and Watson, E.M. 1995. *Somatic embryogenesis in Academic Publishers*. Dordrecht, The Netherlands, 345-416.
- Brown, R.C., Lemmon, B.E., Nguyen and Olsen, O.A. (1999). Development of endosperm in *Arabidopsis thaliana*. *Sex Plant Reprod.*, **12**: 32-42.

- Cabasson, C., Alvard, D., Dambier, D., Ollitrault, P. and Teirsson, C. (1997). Improvement of citrus somatic embryo development by temporary immersion. *Plant Cell. Tiss. Org. Cult.*, **50**:33-37.
- Carreel, F. (1994). Etude de la diversite des bananiers (genera *Musa*) al aide des masquers RFLP. These de la Institut, National Agronomiques, Paris, Grignon. Pp. 90.
- Carreel, F., Faure, S., Gonzales de Leon, D., Lagoda, P. J. L. Perrier, X., Bakry, F., Tezenas du Montcel, H. Lanaud, C. and Horry, J. P. (1994). Evaluation de la diversite genetique chez les bananiers diploids. *Gene. Selec. Evol.*, **26**: 125-136.
- Champion, J. and Siossaram, D. (1970). L'enracinement du bananier das les conditions de la station Neufchateau (Guadeloupe). *Fruits.*, **25**: 847 – 859.
- Cheesman, E. E. (1948). Calssification of the bananas II. The genus *Musa* L., Kew Bulletin, **2**: 106-117.
- Cheesman, E.E. (1947). Classification of the bananas. II. The Genus *Musa* L. Kew Bulletin **2**:106–117.
- Chen, T.H.H., Marowitch, J. and Thompson, B.G. (1987). Genotypic effects on somatic embryogenesis and plant regeneration from callus cultures of *alfalfa*. *Plant Cell, Tiss. and Org. Cult.*, **8**:73-81.
- Chen, W. H., Chen, T. M., Fu, Y. M., Hsieh, R. M. and Chen, W. S. (1998). Studies on somaclonal variation in *Phalaenopsis*. *Plant Cell Rep.*, **18**:7–13.
- Chong-perez, B., Gomez-kosky, R., Reyes-vega, M., Bermudez-Carballosa, I., Gallardo-colina, J., Freire-seijo, M., Posada-perez, I., Herrera-o'farril, I. and Swennen, R. (2005). New methodology for the establishment of cell suspensions of 'Grand Naine' (AAA). *Info Musa.*, **14**: 13-18.
- Chu, CC., Wang, C.C., Sun, C.S., Hsu, C., Yin, K.C., Chu, C.Y. and Bi, F.Y. (1975). Establishment of an efficient medium for another culture of rice through comparative experiments on the nitrogen sources. *Sci. Sin.*, **18** :650- 659.
- Cline, V.W. (2001). Population dynamics of *Poa annua* L. on a northern golf course. Ph.D. diss. Univ. of Minnesota, USA.
- Close, K.R. and Gallagher-Ludeman, L.A. (1989). Structure activity relationship of auxin-like plant growth regulators and genetic influences on the culture induction response in maize (*Zea mays*. L). *Plant Sci.*, **61**:245-252.

- Coates, D.J. and Byrne, M. (2005). Genetic variation in plant populations: assessing cause and pattern. In *Plant Diversity and Evolution: Genotypic and Phenotypic Variation of Higher Plants* (ed RJ Henry). CAB International, Wallingford. pp. 139–164.
- Conger, B.V., Hanning, G. E., Gray, D. J. and MC Daniel, J. K. (1983). Direct Embryogenesis from mesophyll cells of Orchardgrass. *Sci.*, **221**: 850-851.
- Cook, T.J., Racusen, R.H and Cohen, J.D. (1993). The role of auxin in plant embryogenesis. *Plant Cell.*, **5**:1494-1495.
- Cote, F. X, Domergue, R., Monmarson, S. Schwendiman, J., Teison, C. and Escalant, J. V. (1996). Embryogenic cell suspensions from the male flower of *Musa* AAA. Cv. Grand naine. *Physiol. Plant.*, **97**: 285-290.
- Cote, F. X., Folliot, M., Domergue, R. and Dubois. C. (2000). Field performance of embryogenic cell suspension-derived banana plants (*Musa* AAA, cv. Grande naine) *Euphytica.*, **112**: 245-251.
- Cote, F. X., Sandavol, J. A., Marie, P. and Auboiron, E. (1993). Variations in micropropagated banana and plantains. Literature survey. *Fruits.*, **48**: 15-22.
- Creemers-Molenaar, J., Loeffen, J.P.M., vna Rossum , M. and Colijn-Hooymans, C.M. (1992). The effect of genotype, cold storage and ploidy level on the morphogenic response of perennial ryegrass (*Lolium perenne* L.) suspension cultures. *Plant Sci.*, **83**:87-94.
- Cronauer, S.S. and Krikorian A.D. (1984). Multiplication of *Musa* from excised stem tips. *Ann. Bot.*, (London) **53** : 321 - 328.
- Cronauer, S.S. and Krikorian, A. D. (1983). Somatic embryo from cultured tissue of triploid plantains (*Musa* ABB). *Plant Cell Rep.*, **2**: 289-291.
- Cronauer-Mitra, S.S. and Krikorian, A. D. (1988). Plant regeneration via somatic embryogenesis in the seeded diploid banana *Musa ornate* Roxb. *Plant Cell Rep.*, **7**: 23-25.
- Cullis, C. A. and Cleary, W. (1986). DNA variation in flax tissue culture. *Can. J. of Gen. and Cytol.*, **28**: 247-251.
- D'Amato, F. (1978). Chromosome number variation in cultured cells and regenerated plants. In T. A. Thorpe (ed.). *Frontiers of plant tissue culture*. Pp. 287 – 295. IAPTC/ University of Calgary, Calgary.

- Damasco, O. P., Graham, G.C., Henry, R.J., Adkins, S.W., Smith, M.K., Godwin, I.D. (1996). Random amplified polymorphic DNA (RAPD) detection of dwarf off-types in micropropagated Cavendish *Musa* spp. ABB group). *Plant Cell Rep.*, **16**: 118-123.
- Daniells, J.W. (1988). Comparison of growth and yield of bananas derived from tissue culture and conventional planting material. *Banana Newsletter*. **11** :2.
- Daniels, D., Gomez Kosky, R. and Reyes Vega, M. (2002). Plant regeneration system via somatic embryogenesis in the hybrid cultivar FHIA-21 (*Musa* sp. AAAB group). *In-Vitro Cell and Develop. Biol.-Plant*, **38**: 330-333.
- De Klerk G.J. (1990). How to measure somaclonal variation. *Acta Botanica Neerlandica* **39**: 129-144.
- De Langhe, E., Pillay, M., Tenkouano, A., Swennen, R., Suleiman, M. and Gisil, J. (2005). Integrating morphological and molecular taxonomy in *Musa*: the African plantains (*Musa* spp. AAB group). *Plant Syst. and Evol.*, **225**:225-236.
- De Wald, S. G., Luz, R. E, Moore, G.A. (1989). Optimizing somatic embryo production in mango. *J. Am. Soc. Hort, Sci.*, **114**:712-716.
- Debergh, P.C. (1983). Effects of agar brand and concentration on the tissue culture medium. *Physiol. Plant.* **59**: 270-276.
- del-Sol, L., Gomez, G., Escalant, Reyas, M., Freire, M., Cordeiros, M. and Herrera, I. (1995). Somatic embryogenesis in banana and plantain using immature male flowers. *Advance Modern Biotechnol.*, **3**:13.
- Denchev P.D., Kuklin, A.I., Atanassov, A.I. and Scragg, A.H. (1993). Kinetic studies of embryo development and nutrient utilization in an *alfalfa* direct somatic embryogenic system. *Plant Cell Tiss. and Org. Cult.* **33**: 67–73
- Deng, Z.N., Gentile, A., Nicolosi, E., Domina, E., Vardi, A. and Tribulato, E. (1995). Identification of *In vitro* and *in vivo* lemon mutants with RAPD markers. *J. Hort. Sci.*, **70**: 117-125.
- Denton, I.R., Westcott, R.J. and Ford-Lloyd, B.V. (1977). Phenotypic variation of *solanum tuberosum*. cv. Dr McIntosh regenerated directly from shoot tip culture. *Potato Res.* **20**: 131-136.
- Devarumath, R.M., Nandy, S., Rani, V., Marimuthu, S., Muraleedharan, N. and Raina, S.N. (2002). RAPD, ISSR and RFLP fingerprints as useful markers to evaluate genetic integrity of diploid and triploid elite tea clones representing *Camellia*

- sinensis* (China type) and *C. assamica* ssp. *assamica* (Assam type). *Plant Cell Rep.*, **21**: 166-173.
- Dhed'a, D. (1992). Culture de suspensions cellulaires embryogeniques et regeneration en plantules par embryogenese somatique chez le bananier et le bananier plantain (*Musa* spp). PhD thesis, K.U.Leuven, Belgium. 171 pp.
- Dhed'a, D., Dumortier, F., Panis, B., Vuylsteke, D. and De Langhe, E. (1991). Plant regeneration in cell suspension cultures of the cooking banana cv. 'Bluggoe' (*Musa* spp. ABB group). *Fruits.*, **46**: 125-135.
- Dion Daniels, Rafael Gomez Kosky, and Maritza Reyes vega. (2002). Plant regeneration system via somatic embryogenesis in the hybrid cultivar FHIA-21 (*Musa* spp. AAAB group). *In vitro Cell. Dev. Biol. Plant.*, **38**: 330-333.
- Dolezel, J. and Novak, F.J. (1986). Sister chromatid exchanges in garlic (*Allium sativum* L.) callus cells. *Plant Cell Rep.*, **5**: 280-283.
- Domergue, F.G.R., Ferriere, N. and Cote, F.X., (2000). Morphohistological study of the different constituents of a banana (*Musa* AAA, cv. Grand naine) embryogenic cell suspension. *Plant Cell Rep.*, **19**: 748-754.
- Domingues, E.T., Tulmann-Neto, A. and Mendes, B. N. J. (1996). Induction of embryogenic structures on rhizome and pseudostem tissue of banana. *Bragantia.*, **55**:1-8.
- dos Santos, A.V.P., Outka D.E., Cocking, E.D. and Davey, M.R. (1980). Organogenesis and somatic embryogenesis in tissues derived from leaf protoplasts and leaf explants of *Medicago sativa*. *Z Pflarizenphysiol.*, **99**:26 1-270.
- Drew, R. A. and M. K. Smith. (1990). Field evaluation of tissue-cultured bananas in south-eastern Queensland. *Austrl. J. Expt. Agr.*, **30**: 569 – 574.
- Dubois, T., Guedira, M. and Vasseur, J. (1990). Direct somatic embryogenesis in roots of cichorium:: Is callose an early marker? *Ann. of Bot.*, **65**: 539-545.
- Dudits, D., Gyorgyey, J., Bogre, L. and Bako, L. (1995). Molecular and cellular approaches to the analysis of plant embryo development from somatic cells *in vitro*. *J. of Cell Sci.*, **99**:475-484.
- Dunstan, D.I., Tautorus, T.E. and Thorpe, T.A. (1995). Somatic embryogenesis in woody plants. In: Thorpe TA (ed.): *In vitro* Embryogenesis in Plants. Kluwer Academic Publishers. Dordrecht, The Netherlands. **47** : 1-53 8.

- Eapen, S., Kale, D. M. and George, L. (1998) Embryonal shoot tip multiplication in peanut: clonal fidelity and variation in regenerant plants. *Tropical Agric. Res. Exten.*, **1**:23–27.
- Eckstein, K. and Robinson, J.C. (1995). Physiological responses of banana (*Musa* AAA; Cavendish sub-group) in the subtropics. IV. Comparison between tissue culture and conventional planting material during the first months of development. *Journal for Horticultural Science.*, **70**: 549-559.
- Escalant, J. V., Teisson, C. and Cote, F. X. (1994). Amplified somatic embryogenesis from male flowers of triploid banana and plantain cultivars (*Musa* sp.). *In vitro Cell and Develop. Biol.*, **30**:181-186.
- Escalant, J.V. and Teisson, C. (1988). Somatic embryogenesis in *Musa* sp. C.R. *Seances-Acad. Sci. Ser.*, **306**: 277-281.
- Escalant, J.V. and Teisson, C. (1989). Somatic embryogenesis and plants from immature zygotic embryos of the species *Musa acuminata* and *Musa balbisiana*. *Plant Cell Rep.*, **7**: 665-668.
- Escalant, J.V. and Teisson, C. (1993). Somatic embryogenesis and cell suspension in *Musa*. In Proceeding of the workshop on biotechnology applications for banana and plantain improvement held on San Jose, Costa Rica., 27-31. pp. 177-180.
- Escalant, J.V. Chatelet,-Paduschek, C., Babeau, J., Grapin, A. and Teisson, C. (2003). Somatic embryogenesis in banana from young male flowers. *In-Vitro cult. of trop. plants.*, P.61-63.
- Etienne, H., Berger, A. and Carron, M.P. (1997). Water status of callus from *Hevea brasiliensis* during induction of somatic embryogenesis. *Physiol Plantaarum.*, **82**: 213-218.
- Evans, D. A. and W. R. Sharp. (1986). Applications of somoclonal variation. *Biotech.*, **4**: 528 – 532.
- Evans, D. A., Sharp, W. R. and Flick, C. E. (1981). Growth and behaviour of cell cultures: Embryogenesis and organogenesis. In: Thorpe TA (ed) *Plant Tissue Culture: Methods and Applications in Agriculture* (pp. 45-113). Academic Press, New York.
- FAO stat (2005). Food and Agricultural Organization of the United Nations Statistical Database. <http://faostat.fao.org>.
- Feirer, R.P. and Simon, P.W. (1991). Biochemical difference between carrot inbreds differing in plant regeneration potential. *Plant Cell Rep.*, **10**:152-155.

- Fischer, C. and Neuhaus, G. (1996). Influence of auxin on the establishment of bilateral symmetry in monocots. *The Plant J.*, **9**:659-669.
- Fitchet, M. (1987). Somatic embryogenesis in callus of Dwarf Cavendish banana. Information Bulletin, Citrus and Subtropical Fruit Research Institute, South Africa **176**: 1-2.
- Ford-Lloyd, B.V, Sabir, A., Newbury, H.J., Todd, C. and Catty, J. (1992) Determination of genetic stability using isozymes and RFLPs in beet plants regenerated *in vitro*. *Theor. Appl. Genet.* **84**:113-117.
- Fourre, J. L., Berger, P., Niquet, L. and Andre, P. (1997). Somatic embryogenesis and somaclonal variation in Norway spruce: morphogenetic, cytogenetic and molecular approaches. *Theor. Appl. Genet.*, **94**:159–169.
- Fujimura, T. and Komamine, A. (1979). Synchronization of somatic embryogenesis in a carrot cell suspension culture. *New Phytol.*, **86**: 162-164.
- Gagliardi, R.F, Pacheco, G.P., Carneiro, L.A., Valls, J.F.M., Vieira, M.L.C., Mansur, E. (2003). Cryopreservation of *Arachis* species by vitrification of *in vitro*-grown shoot apices and genetic stability of recovered plants. *Cryo Letters.*, **24**: 103-110.
- Gamborg, O.L., Miller, R.A. and Ojirna, K. (1968). Nutrient requirements of suspension cultures of soybean root cells. *Exp. Cell Res.*, **50**: 151-158.
- Ganapathi, T. R., Higgs, N. S., Balint Kurti, P. J., Arntzen, C. J., May, J. M. and Van Eck. (2001a). Agrobacterium mediated transformation of embryogenic cell suspension of the banana cultivar *Rasthali* (AAB), *Plant Cell Rep.*, 157-162.
- Ganapathi, T. R., Srinivas, L., Suprasanna, P. and Bapat, V. A. (2001b). Regeneration of plants from alginate encapsulated somatic embryos of banana cv. Rasthali (*Musa* spp. AAB group). *In-Vitro Cell. and Develop. Biol. Plant.*, **37**: 178-181.
- Ganapathi, T. R., Suprasanna, P., Bapat, V. A., Kulkarni V.M. and Rao, P.S. (1999). Somatic embryogenesis and plant regeneration from male flower buds in banana. *Curr. Sci.*, **76**: 1228-1231.
- Ganapathi, T.R. and Higgs, N. (1999). Transformation and regeneration of the banana cultivar Rasthali (AAB). Proceeding of the International symposium on the molecular and cellular biology of bananas. March 22-25. Ithaca. NY. USA. *InfoMusa*. 8 (1): XIII.

- Gavidia, I., del Castillo Agudo, L., Perez-Bermudez, P. (1996). Selection and longterm cultures of high-yielding *Digitalis obscura* plants: RAPD markers for analysis of genetic stability. *Plant. Sci.*, **121**:197–205.
- George, E. F. (2006). Plant propagation by tissue culture. Edington, Wilts: Exegetics Ltd.; 1993. Rafael G´omez Kosky, Luis Antonio Barranco, Borys Chong P´erez, Dion Daniels, Maritza Reyes Vega & Manuel de Feria Silva (2006). Trueness-to-type and yield components of the banana hybrid cultivar FHIA-18 plants regenerated via somatic embryogenesis in a bioreactor. *Euphytica.*, 150: 63–68.
- Georget, R., Domergue, R. Ferriere, N. and Cote, F. X. (2000). Morpho-histological study of the different constituents of a banana (*Musa* AAA, Cv. *Grande naine*) embryogenic cell suspension. *Plant Cell Rep.*, **19**: 748-754.
- Ghosh, A. and Gadgil, V.N. (1979). Shift in ploidy level of callus tissue: A function of growth substances. *Ind. J. of Exp. Biol.*, **17**: 562-564.
- Gomez Kosky, R., de Feria, M.S., Posada, L.P., Gilliard, T., Bernal, F.M., Chavez, M. M. and Quiala, E. M. (2002). Somatic embryogenesis of the banana hybrid cultivar FHIA-18 (AAAB) in liquid medium and scale-up in a bioreactor. *Plant Cell Tiss. Cult.*, **68**: 21-26.
- Gomez, K.A. and Gomez, K.A. (1976). Statistical procedure for agricultural research with emphasis of rice. International Rice Research Institute. Los Bauos, Phillippines.
- Gomez-Kosky, R., Gilliard, T., Barranco, L. A. and Reyas, M. (2000). Somatic embryogenesis in liquid media. Maturation and enhancement of germination of the hybrid cultivar FHIA-18 (AAAB). *InfoMusa.*, **9**: 16-27.
- Gomez-Kosky, R., Sol, L.D., Reyes, V.M., Seijo, M., Posada, P. L., Herrera, I. and Vincent, E.J. (2001). Somatic embryogenesis in banana and plantain (*Musa* sp.) from male immature flowers. *Biotech-Veg.*, **1**: 29-35.
- Goto, S., Thakur, R. C. and Ishii, K. (1998). Determination of genetic stability in long-term micropropagated shoots of *Pinus thunbergi* Parl. using RAPD markers. *Plant Cell Rep.*, **18**:193–197.
- Grabin, A. (1995). Regeneration par embryogenese somatique en milieu liquide et transformation genetique par biolistique de bananiers di-et triploids. Ph.D. thesis, Montpellier, France, 90 pp.

- Grapin, A., Ortiz, J.L., Domergue, R., Babeau, J., Monmarson, S., Escalant, J.V., Teisson, C. and Cote, F. (1998). Establishment of embryogenic callus and initiation and regeneration of embryogenic cell suspension from female and male immature flower of *Musa*. *InfoMusa.*, **7**: 13-15.
- Grapin, A., Ortiz, J. L., Lescot, T., Ferriere, N. and Cote, F. X. (2000). Recover and regeneration of embryogenic culture from female flowers of False Horn Plantain. *Plant Cell Tiss and Org Cult.*, **61**: 237-244.
- Grapin, A., Schwendiman, J. and Teisson, (1996). Somatic embryogenesis in plantain banana. *In vitro Cell and Devlop. Biol.*, **32**: 66-71.
- Gray, D. J. (1995). Quiescence in monocotyledonous and dicotyledonous somatic embryos induced by dehydration. *Horti. Sci.*, **22**: 810-814.
- Gray, D. J., Compton, M.E., Harrell, R.C. and Cantliffe, D.J. (1995). Somatic embryogenesis and the technology of synthetic seed. *Biotechnology in Agriculture and Forestry.*, **30**: 127–151.
- Groll, J., Mycock, D. J., Gray, V. M. and Laminski, S. (2001). Secondary somatic embryogenesis of cassava in picloram supplemented media. *Plant Cell Tiss. and Org. Cult.*, **65**: 201-210.
- Gupta, P. K. and Timmis, R. (1999). Conifer somatic embryo production from liquid culture. In: Altman A et al. (eds.) *Plant Biotechnology and In vitro Biology in the 21st Century* (pp.49-52), *Kluwer Academic Publishers*, Dordrecht.
- Habiba, U., Reza, S., Saha, M.L., Khan, M.R. and Hadiuzzaman, S. (2002). Endogenous bacterial contamination during *In vitro* culture of table banana: Identification and prevention. *Plant Tiss. Cult.*, **12** : 117-124.
- Haccius, B. (1978). Question of unicellular origin of non zygotic embryos in callus cultures. *Phytomorphology.*, **28**:74-81.
- Halperin, H. and Jensen, W. A. (1967). Ultrastructural changes during growth and embryogenesis in carrot cell cultures. *J. Ultrastruct. Res.*, **18**: 428-443.
- Hamill, S. D., M. K. Smith and W. A. Dodd. 1992. In vitro induction of banana autotetraploids by colchicines treatment of micropropagated diploids. *Austral. J. Bot* 40: 887 – 896.
- Hartmann, C., Henry, Y., De Buyser, J., Aubry, C., Rode, A. (1989). Identification of new mitochondrial genome organizations in wheat plants regenerated from somatic tissue cultures. *Theor. Appl. Genet.*, **77**:169–175.

- Hashmi, G., Huettel, R., Meyer, R., Krusberg, L. and Hammerschlag, F.A. (1997). RAPD analysis of somaclonal variants derived from embryo callus cultures of peach. *Plant Cell Rep.*, **16**: 624-627.
- Hatanaka T., Arakawa O., Yasuda T., Uchida N., Yamaguchi T. (1991). Effect of plant growth regulators on somatic embryogenesis in leaf cultures of *Coffea canephora*. *Plant Cell Rep.*, **10**:179-182.
- Heide, O.M. (2001). Flowering responses of contrasting ecotypes of *Poa annua* and their putative ancestors *Poa infirma* and *Poa supina*. *Ann. Bot.*, **87**:795-804.
- Heindorff, K., Reiger, R., Schubert, I., Michaelis, A and Aurich, O. (1987). Clastogenic adaptation of plant cells – reduction of the yeild of clastogen-induced chromatid aberrations by various pretreatment procedure. *Mutation Res.*, **181**: 157-171.
- Heinze, B. and Schmidt, J. (1995). Monitoring genetic fidelity vs. somaclonal variation in Norway spruce (*Picea abies*) somatic embryogenesis by RAPD analysis. *Euphytica.*, **85**:341–345.
- Henry, Y., Vain, P. and De Buyser, J. (1994). Genetic analysis of *Musa* plant tissue culture responses and regeneration capacities. *Euphytica.*, **79**: 45-48.
- Higgins, P. and Mathias, R.J. (1987). The effect of the 4B chromosomes of hexaploid wheat on the growth and regeneration of callus cultures. *Theor. Appl. Genet.*, **74**: 439-444.
- Hilbert, J.L., Dubois, T. and Vasseur, J. (1992). Detection of embryogenesis-related proteins during somatic embryo formation in *Cichorium*. *Plant Physiol. and Biochem.*, **30**: 733-741.
- Ho, W., Vasil, I.K. (1983). Somatic embryogenesis in sugarcane (*Saccharum officinarum* L.) I. The morphology and physiology of callus formation and the ontogeny of somatic embryos. *Protoplasma.*, **118**:169–180.
- Horry, J.P. (1989). Chemiotaxonomie et organization genetique dans le genre *Musa*. *Fruits.*, **44**:455-74.
- Horry, J.P., Ortiz, R., Arnaud, E., Crouch, J.H., Fernis, R.S.B., Jones, D.R. Mateo, N., Picq, C. and Vylsteke. D. (1997). Banana and Plantain – In :Biodiversity in trust.Conservation and use of Plant genetic resources in CGIAR centers (D.Fuccillo, L.Sears and P.Stapleton, eds.). Cambridge University Press.
- Huetteman, C.A. and Preece, J.E. (1993). Thidiazuron: a potent cytokinin for woody plant tissue culture. *Plant Cell Tiss. and Org. Cult.*, **33**: 105–19.

- Hussey, G. (1983). *In vitro* propagation of horticultural and agricultural crops, pp.111-138. In: *Plant Biotechnology*, Mantell S.H. and Smith, H (eds). Cambridge: Cambridge University Press.
- Hwang, S. C. and W. H. Ko. (1987). Somaclonal variation of bananas and screening for resistance to Fusarium wilt. pp. (151 - 156). In: (eds. Persley G. J. and E. A. De Langhe) Proc. Intl. Wkshp. Cairns, Australia, 13 – 17 Oct. 1986. ACIAR Proc No. 21. Aust. Cent. Intl. Agr. Res., Canberra.
- Ibaraki, Y. and Kurata, K. (2001). Automation of somatic embryo production. *Plant Cell Tiss and Org Cult.*, **65**: 179-199.
- Ibaraki, Y., Kaneko, Y. and Kurata, K. (1998). Evaluation of embryogenic potential of cell suspension culture by texture analysis. Transaction of the ASAE. **41**: 247-252.
- Ibaraki, Y., Matsushima, R. and Kurata, K. (2000). Analysis of morphological changes in carrot somatic embryogenesis by serial observation. *Plant Cell Tiss and Org Cult.*, **61**: 9-14.
- INIBAP. (2000). Networking Banana and plantain: INIBAP Annual Report 1999. International Network for improvement of Bananas & plantain Montpellier, France.
- INIBAP. 2003. Networking Banana and Plantain: INIBAP Annual Report 2002. International Network for the Improvement of Banana and Plantain, Montpellier, France, 40p.
- Ishii, K., Moran, G.F., Bell, J.C. and Hartney, V. (1987). Genetic stability examination of micropropagated radiata pine (*Pinus radiata*) using isozyme assays. *Journal of Japanese Forest Society.*, vol. **69**, p. 487-488.
- Israeli, Y., Lahav, E. and Reuveni, O. (1995). *In vitro* culture of bananas. In: Bananas and Plantains pp. 147 – 178 (ed. S. Gowen). Chapman and Hall, London.
- Israeli, Yair., Ben-Bassat., Dahlia. and Reuveni.(1996). Selection of stable banana clones which do not produce dwarf somaclonal variants during *In vitro* culture. *Scientia Horti.*, **67**:197-205.
- Israeli Y., Reuveni, O. and Lahav, E. (1991). Qualitative aspects of somaclonal variations in banana propagated by *in vitro* techniques. *Scientia Horti.*, **48**: 71-88.

- Ivanova, A., Velcheva, M., Denchev, P., Atanassov, A. and Van Onckelen, H.A., (1994). Endogenous hormone levels during direct somatic embryogenesis in *Medicago falcata*. *Physiol. Plantarum.*, **92**: 85-89.
- Jackson Aimee, I., Ru Chen. and Lawrence Loeb, A.(1998). Induction of Microsatellite instability by oxidative DNA damage. Proceedings of the National Academy of Sciences of the United States of America., **95**:12468-12473.
- Jackson, J. A. and Dale, P.J. (1989). Somaclonal variation in *Lolium multiflorum* L. and *tumulentum* L. *Plant Cell Rep.*, **8**: 161-164.
- Jackson, J.A. and R.F. Lyndon. (1998). Habituation: Cultural curiosity or development determination? *Physiol. Planta.*, **79**: 579 583.
- Jaligot, E., Rival, A., Beule. T., Dussert, S., Verdeil, J.L. (2000). Somaclonal variation in oil palm (*Elaeis guineensis* Jacq.): the DNA methylation hypothesis. *Plant Cell Rep.*, **19**: 684-90.
- Jalil, M., Khalid, N. and Othman, R. (2003). Plant regeneration from embryogenic suspension cultures of *Musa acuminata* cv. Mass (AA). *Plant Cell Tiss. and Org. Cult.*, **75**: 209-214.
- Jasrai, Y.T, Kannan, R.V, Ramakanthan. A. and George, M.M. (1999). *Ex vitro* survival of *in vitro* derived banana plants without greenhouse facilities. *Plant Tiss. Cult.*, **9**: 127 - 132.
- Jayanthi, M. Mandal, P. K. (2001). Plant regeneration through somatic embryogenesis and RAPD analysis of regenerated plants in *Tylophora indica* (Burm. F. merrill.). *In vitro Cell. Dev. Biol. Plant.*, **37**:576–580.
- Johnson, L.B. Stutevile, D.L., Schlarbaum, S.E. and Skinner, D.Z. (1984). Variation in phenotype and chromosome number in *alfalfa* protoclonal regenerants from non-mutagenized callus. *Crop Sci.* **24**: 948-951.
- Johnson, P.G. and D.B White. (1998). Inheritance of flowering pattern among four annual bluegrass (*Poa annua* L.) genotypes. *Crop Sci.*, **38**(1):163-168.
- Johnson, P.G. and D.B. White. (1997a). Vernalization requirements among selected genotypes of annual bluegrass (*Poa annua* L.).*Crop Sci.*, **37**:1538-1542.
- Johnson, P.G. and D.B. White. (1997b). Flowering responses of selected annual bluegrass genotypes under different photoperiod and cold treatments. *Crop Sci.*, **34**:1643-1747.

- Jordan, M.C., and Larter, E.N. (1985). Somaclonal variation in triticle (x *Triticosecale Wittmack*) cv. Carmen. *Can. J. of Genet and Cytol.*, **27**: 151-158.
- Joshi, P. and Dhawan, V. (2007). Assessment of genetic fidelity of micropropagated *Swertia chirayita* plantlets by ISSR marker assay. *Biol. Plant.*, **51**:22–26
- Kao, K.N., Miller, R.A., Gamborg, O.L. and Harvey, B.L. (1970). Variation in chromosome number and structure in plant cells grown in suspension cultures. *Canadian J. of Cytol.*, **12**: 180-191.
- Karp, A. and Bright. S. W. J. (1985). On the causes and origins of somoclonal variation. Oxford surveys. *Plant Mol. Cell Biol.*, **2**: 199 – 234.
- Kazumitsu Matsumoto, Marly Catarina Felipe Coelho, Manoel Teixeira Souza Junior, and Batista Teixeira, (2006). Plantlet regeneration from suspension cells of a diploid hybrid banana. Joinville-Santa Catanna- BRASIL.
- Kenneth, C., Torres. (1989). Tissue culture technique for horticultural crops. Chapman & Hall, New York London.
- Khalil, S. M., Cheah, K. T., Perez, E. A., Gaskill, D. A. and Hu, J. S. (2002). Regeneration of banana (*Musa* spp. AAB cv. Dwarf Brazilian) via secondary somatic embryogenesis. *Plant Cell Rep.*, **20**: 1128-1134.
- Komatsuda, T. and Ohyama, K. (1988). Genotypes of high competence for somatic embryogenesis and plant regeneration in soybean *Glycine max*. *Plant Cell Rep.*, **75**: 695–700.
- Krikorian, A. D. and Scott, M. E. (1995). Somatic embryogenesis in bananas and plantain (*Musa* clones and species). In *Biotechnology in Agriculture and forestry, Somatic Embryogenesis and Synthetic Seed II* (Y. P.Bajaj, ed.), Vol **1**, pp. 183-195. Springer-Verlag, New York, NY. ISBN 0-387-57449-2.
- Krikorian, A. D., Irizarry, H. Cronauer-Mitra, S. S. and Rivera, E. (1993). Clonal fidelity and variation in plantain (*Musa* AAB) regenerated from vegetative stem and floral axis tip *in vitro*. *Ann. Bot.*, **71**: 519 – 535.
- KrishnaRaj, S. and Vasil, I.K. (1995). Somatic embryogenesis in herbaceous monocots. In: Thorpe TA (ed.): *In Vitro Embryogenesis in Plants*. Kluwer Academic Publishers. Dordrecht, The Netherlands. Pp **4**: 17-470.
- Kulkarni, V. M., Varshney, L. R., Bapat, V. A. Rao, P. S. (2002). Somatic embryogenesis and plant regeneration in a seeded banana (*Ensete superbum* (Roxb.) Cheesman). *Current Sci.*, **83** : 939-941.

- Kumar, V., Laour, A., Davey, M.R., Mullegun, B.J. and Lowe, K.C (1992). Pluronic F-68 stimulates growth of *solanum dulcamara* in culture. *J. Expt.Bot.*, **43**: 487-493.
- Lagoda P.J.L., Dambier, D., Grapin, A., Baurens, F.C., Lanaud,C. and Noyer, J.L. (1998). Nonradioactive sequence-tagged microsatellite site analyses: A method transferable to the tropics. *Electrophoresis.*, **19**:152-157.
- Lattoo, S.K., Bamotra, S., Dhar, R.S., Khan, S., Dhar, A.K. (2006). Rapid plant regeneration and analysis of genetic fidelity of *in vitro* derived plants of *Chlorophytum arundinaceum* Baker-an endangered medicinal herb. *Plant Cell Rep.*, **25**(6): 499-506.
- Lebot, V., Aradhya, K. M., Manshard,T. R. and Meilleur, B. (1993). Genetic relationships among cultivated bananas and plantains from Asian and Pacific. *Euphytica.*, **67**: 163-76.
- Lee, K., Jeon, H. and Kim M. (2002). Optimization of a mature embryo-based *In vitro* culture system for high-frequency somatic embryogenic callus induction and plant regeneration from japonica rice cultivars. *Plant Cell Tiss. and Org. Cult.*, **71**: 237-244.
- Lee, M and Philips, R.L. (1987). Genetic variants in progeny of regenerated maize plants. *Genome.*, **29**: 834-838.
- Lee, M., Zapata arias, F.J., Brunner, H. and Afza, R. (1997). Histology of somatic embryo initiation and organogenesis from rhizome explants of *Musa* spp. *Plant Cell Tiss. and Org. cult.*, **51**: 1-8.
- Lemos, O.F. (1994). Somatic embryogenesis in three cultivars of banana crops (*Musa* spp., AAA and AAB groups). Piracicaba, SP (Brazil). pp. 159.
- Levi, A. and Sink, K.C. (1991). Somatic embryogenesis in asparagus: the role of explants and growth regulators. *Plant Cell Rep.*, **10**:7 1-75.
- Linsmaier, E.M. and Skoog, F. (1975). Organic growth factor requirements of tobacco tissue cultures. *Physiol. Plant.*, **18**: 100.
- Lippmann, B. and Lippmann, G. (1993). Soybean embryo culture: factors influencing plant recovery from isolated embryos. *Plant Cell Tiss. and Org. Cult.*, **32**:83-90.
- Litz, R. E. and Jarret, R. L. (1991). Regeneración de plantas en el cultivo de tejidos: embriogénesis somática y organogénesis. In: Roca W. M., Mroginski L. A. (Eds.). Cultivo de Tejidos en la Agricultura – Fundamentos Aplicaciones. Centro Internacional de Agricultura Tropical, Cali: 143-172.

- Liu, C.M., Xu, Z.H. and Chua, N.H. (1993). Proembryo culture: *In vitro* development of early globular-stage zygotic embryos from *Bms- sica juncea*. *Plant J.*, **3**: 291-300.
- Liu, W., Moore, P.J. and Collins, G.B. (1993). Somatic embryogenesis *in* soybean via somatic embryo cycling. *In vitro Cell. Dev. Biol.*, **28**: 153- 160.
- Ma, S. S. (1991). Somatic embryogenesis and plant regeneration from cell suspension culture of banana. In Proceedings of Symposium on Tissue culture of horticultural crops, Taipei Taiwan, 8-9 March 1988, pp. 181-188.
- Maene, L. and de Bergh, P. (1985). Liquid medium additions to established tissue cultures to improve elongation and rooting *in vivo* *Plant Cell Tiss. and Org. Cult.*, **5**:23 - 33.
- Mahanom Jalil, (2003). Plant regeneration from embryogenic suspension cultures of *Musa acuminata* cv. Mas (AA). *Plant Cell Tiss. and Org. Cult.*, **75**: 209-214.
- Mahanom Jalil, Wong Wei Chee, Rofina Yasmin Othman, and Norzulaani Khalid. (2008). Morphohistological examination of somatic embryogenesis of *Musa acuminata* cv. Mas (AA). *Scientia Horti.*, **117**: 335-340.
- Maheswaran, G. and Williams, E.G. (1985). Origin and development of somatic embryoids formed directly on immature embryos of *Trifolium repens in vitro*. *Annals of Bot.*, **56**: 619-630.
- Maluszynska, J., Hasterok, R. and Weiss, H. (1998). rRNA genes their distribution and activity in plants. In: Maluszynska J (ed) *Plant cytogenetics.*, pp.75–95.
- Maribel Ramirez-villalobos. and Eva De Garcia. (2008). Obtainment of embryogenic cell suspension from scalps of the banana CIENBTA-03 (*Musa* sp., AAAA) and regeneration of the plants. *Plant biotech.*, **5**: 1-9.
- Marriott, H. and Lancaster, P.A. (1983). Bananas and plantains. In handbook of Tropical foods. 85-143.
- Marroquin, C. G., Paduscheck, C., Escalant, J. V. and Teisson, C. (1993). Somatic embryogenesis and plant regeneration through cell suspension in *Musa acuminata*. – *In vitro Cell Dev. Biol.*, **29**: 43-46.
- Martin M, Sarmiento D, Oliveira MM (2004). Genetic stability of micropropagated almond plantlets, as assessed by RAPD and ISSR markers. *Plant Cell Rep.*, **23**:492–496.

- Martin, K.P., Pachathundikandi, S.K., Zhang, C.L., Slater, A. and Madassery, J. (2006). RAPD analysis of a variant of banana (*Musa* sp.) cultivar Grande naine and its propagation via shoot tip culture. *Musa Cell. Dev. Biol. Plant.*, **42**(2): 188-192.
- Martin, K.P., Sunandakumar, C., Chithra, M., Madhusoodanan, P.V (2005). Influence of auxins in direct *In vitro* morphogenesis of *Euphorbia nivulia*, a lectinaceous plant. *In vitro Cell. and Devel. Biol.-Plant.*, **41**:314-319
- Mavituna, F., and Buyukalaca, S. (1996). Somatic embryogenesis of pepper in bioreactors: a study of bioreactor type and oxygen uptake rates. *Appl. Microbiol. Biotech.*, **46**: 327-333.
- May, G.D., Afza, R., Mason, H.S., Wiecko, A., Novak, F. J. and Arntzen, C. J. (1995). Generation of transgenic banana (*Musa acuminata*) plants via *Agrobacterium*-mediated transformation. *Biotechnol.*, **13**: 486-492.
- McClintock, B. (1984). The significance of responses of the genome to challenge. *Sci.*, **226**: 792-801.
- McCoy, T.J., Phillips, R.L. and Rines, H.W. (1982). Cytogenetic analysis of plants regenerated from oat (*Avena sativa*) tissue culture: High frequency of partial chromosome loss. *Can. J. of Gene. and Cytol.*, **24**: 37-50.
- McKersie, B.D. and Brown, D.C.W. (1996). Somatic embryogenesis and artificial seeds in forage legumes. *Seed Sci. Res.*, **6**: 109- 126.
- Megia, R., Hacur, R., Tizroutine, S., Bui Trang, V., Rossignol, L., Sihachakr, D. and Schwendiman, J. (1993). Plant regeneration from cultured protoplasts of the cooking banana cv. Bluggoe (*Musa* spp., ABB group). *Plant Cell Rep.*, **13**: 41-44.
- Merkle, S.A., Parrott, W.A. and Flinn, B.S. (1995). Morphogenic aspects of somatic embryogenesis. In: Thorpe TA ed.: *In vitro* Embryogenesis in Plants. Kluwer Academic Publishers. pp 155-203.
- Mezentsev, A.V. and Karelina, N.A. (1982). Effects of genotypic variations on callus formation and somatic embryogenesis in tissue culture of alfalfa in normal and extreme environment. *Genetics.*, **18**: 999- 1003.
- Michaux-Ferriere, N., Schwendiman, J., Y (ed.). Dattee, C (ed.). Duman, A. Gallais. (1992). Histology of somatic embryogenesis. *Reprod. boil. and plant breeding.*, pp.247-259.

- Mitra, J and F.C. Steward (1961). Growth induction in cultures of Haplo pappus gracilis. II. The behavior of the nucleus. *Am. J. Bot.*, 48: 358-368.
- Modgil, M., Mahajan, K., Chakrabarti, S.K., Sharma, D.R. and Sobti, R.C. (2005). Molecular analysis of genetic stability in micropropagated apple root stock MM106. *Scientia Horti.*, vol. **104**(2): 151-160.
- Mohatkar, L. C., Chaudhari, A. N., Deokar, A. B. and Shah, B. S. (1993). Organogenesis in *Saccharum officinarum* L. variety 'Co 740'. *Curr. Science*, **64** : 604-605.
- Molle, F., Dupuis, J. M., Ducos, J. P., Anselm, A., Crolus-Savidan, I., Petiard, Y . and Freyssinet, G. (1993). Carrot somatic embryogenesis and its application to synthetic seeds. In: Redenbaugh K (ed.) Synseeds (pp.257-287). CRC Press, Boca Raton.
- Morris, P.C., Kumar, A., Bowles, D.J and Cuming, A.C. (1990). Osmotic stress and abscisic acid induce expression in wheat *Em* genes. *Eur J Biochem.*, **190**: 625-630.
- Moy, Y., Hanson, D., Enger, D and Gutterson, N (1999). Analysis of *uid A* gene expression form transgenes in field grown Grand Naine (AAA) banana plants. Proceeding of the interventional symposium on the molecular and cellular biology of bananas, March 22-25. Ithaca, NY, USA (Abstracts). *InfoMusa.*, **8** (1): XIII.
- Moyer, B.G., Gustine, D.C (1984). Regeneration of *coronilla varila* L. (crown vetch) plants from callus culture. *Plant Cell Tiss. and Org. Cult.*, 3: 143-148.
- Murashige, T. and Skoog, F. (1962). A revised medium for rapid growth and bioassays with tobacco tissue cultures. *Physiol. Plant.*, **15**: 473-497.
- Murashige, T., and Nakano, R. (1967). Chromosome complement as a determinant of the morphogenic potential of tobacco cells. *Am. J. of Bot.*, **54**: 963-970.
- Nahamya, P (2000). Development of embryogenic cell suspensions for East African Highland bananas. MSC. Thesis, Makerere University, Kampala, Uganda.
- Nasser, J., Sholi, Y., Anjana chaurasia., Anuradha agarwal and Neera bhalla sarin. (2009). ABA enhances plant regeneration of somatic embryos derived from cell suspension cultures of plantain cv. Spambia (*Musa* sp.). *Plant Cell Tiss. Org. Cult.*, **99**:133-140.

- Nasution, R.E. (1991). A taxonomic study of the species *M.acuminata* with its intraspecific taxa in Indonesia. *Memoirs of Tokyo University of Agriculture*, **23**: 1-22.
- Natesh, S., and Rau, M.A. (1984). The embryo. In *Embryology of Angiosperms*, B.M. Johri, ed (Berlin: Springer-Verlag). pp. 377-443
- Navarro, C., Escobedo, R.M. and Mayo, A. (1997). *In-vitro* plant regeneration from embryogenic cultures of a diploid and a triploid, Cavendish banana. *Plant Cell Tiss. and Org. Cult.*, **51**: 17-25.
- Nayak, P. and Sen, S.K. (1989). Plant regeneration through somatic embryogenesis from suspension cultures of a minor millet, *Paspalum scrobiculatum* L. *Plant Cell Rep.*, **8**: 296.
- Nei M. and Li, W.H. (1979) Mathematical model for studying genetic variation in terms of restriction endonucleases. *Proc. Nat. Acad. Sci.*, **76**:5269–5273.
- Nickle, T.C. and Yeung, E.C. (1993). Failure to establish a functional shoot meristem may be a cause of conversion failure in somatic embryos of *Daucus carota* (*Apicaceae*). *Am. J. of Bot.*, **80**:1284-1291.
- Nie, J.C., Wu, G.L., Zhang, Y.S., Yang, S.Z., Liu, H.M. (1989). *Biochemistry*. 2nd ed. Higher Education Press. Beijing.
- Niubó E, Maribona R & Sánchez C. 2000. Morphometric characterization of a cell line from sugar cane. *CENIC Sciences.*, **31** (3) :173-176.
- Nokoe, S. and Ortiz, R. (1998). *Horti. Sci (USA).*, **33**: (1): 130-132.
- Nolan, K.E., Rose, R.J., Gost, J.R (1989). Regeneration of *Medicago truncatula* from tissue culture: increased somatic embryogenesis using explants from regenerated plant. *Plant Cell Rep.*, **8**: 279-281.
- Nomura, K and Komamine, A. (1986). Polarized DNA synthesis and cell division in cell clusters during somatic embryogenesis from single carrot cells. *The New Phytologist.*, **104**: 25-32.
- Norstog, K. (1961). The growth and differentiation of cultured barley embryos. *Am. J. of Bot.*, **48**: 876-884.
- Norstog, K. (1970). Induction of embryo like structures by kinetin in cultured barley embryos.

- Novak, F. J., Afza, R., Van Duren, M., Perea-Dallos, M., Comger, B. V. and Tang Xiolang. (1989). Somatic embryogenesis and plant regeneration in suspensions cultures of dessert (AA and AAA) and cooking (ABB) bananas (*Musa* spp.). *Biotechnol.*, **46**: 125-135.
- Nweke, F., Njoku, J. and Wilson, G.F. (1988). Productivity and limitations of plantain (*Musa* spp. cv AAB) production in compound gardens in South-eastern Nigeria. *Fruits.*, **43**: 161-166.
- Onay, A., Jeffree, C.E., Theobald, C. and Yeoman, M.M. (2000). Analysis of the effects of maturation treatments on the probabilities of somatic embryo germination and plantlet regeneration in pistachio using a linear logistic method. *Plant Cell Tiss. and Org. Cult.*, **60**: 121-129.
- Orton, T. J. (1984). Somaclonal variation: Theoretical and practical considerations, pp. 427 – 468. In: (ed. J. P. Gustafson)
- Osuga, K. and Komamine, A. (1994). Synchronization of somatic embryogenesis from carrot cells a high frequency as a basis for the mass production of embryos. *Plant Cell Tiss. and Org. Cult.*, **39**: 125-135.
- Ozias-Akins, P. and I.K. Vasil. (1988). *In vitro* regeneration and genetic manipulation of grasses. *Physiol. Plant.*, **73**:565-569.
- Ozias-Akins, P., Vasil, I. K., (1982)., Plant regeneration from cultured immature embryos and inflorescences of *Triticum aestivum* L. (wheat): Evidence for somatic embryogenesis. *Protoplasma.*, **110**: 95-105.
- Panis, B. (1995). Cryopreservation of banana (*Musa* spp.) germplasm, p. 201 PhD thesis, K.U. Leuven, Belgium.
- Panis, B. and Swennen, R. (1993). Embryogenesis *Musa* plant cell culture: current and future applications. *InfoMusa.*, **2**: 3-6.
- Panis, B. and Thinh, N.T. (2001). Cryopreservation of *Musa* germplasm. INIBAP Technical Guidelines 5 (Escalant, J.V and Sharcock, S. eds). International Network for the Improvement of Banana and Plantain. Montpellier. France. 44pp.
- Panis, B., Van-Wauwe, A. and Swennen, R. (1993). Plant regeneration through direct somatic embryogenesis from protoplasts of banana (*Musa* spp.). *Plant Cell Rep.*, **12**: 403-407.

- Parrott W, Dryden G, Vogt S, Hildebrand D, Collins G & Williams E. (1988). Optimization of somatic embryogenesis and embryo germination in soybean. *In Vitro Cell. Dev. Biol.*, **24**: 817-820.
- Parrott, W. (1993). Cell-culture Techniques: Cell Culture, *In vitro* Selection, and Somaclonal Variation. In: Proceeding Biotechnology applications for banana and plantain improvement. INIBAP Meeting (1992, San Jose, Costa Rica). Montpellier, pp 183-191.
- Parrott, W.A., Williams, E.G., Hildebrand, D.F. and Collins, G.B. (1989). Effect of genotype on somatic embryogenesis from immature cotyledons of soybean. *Plant Cell Tiss and Org Cult.*, **16**: 15-21.
- Perez Hernandez, J.B., Remy, B., Galan Saucó, V., Swennen, R. and Sagi, L. (1999). *Agrobacterium*-mediated transformation of banana embryogenic cell suspension cultures. Proceedings of the International symposium on the molecular and cellular biology of banana. March 22-25, Ithaca, NY, USA (Abstracts). *INFOMUSA* 8(1): XIII.
- Perez Hernandez, J.B., Remy, B., Galan Saucó, V., Swennen, R. and Sagi, L. (1998). Chemotactic movement to wound exudates and attachment of *Agrobacterium tumefaciens* to single cells and tissues of banana. *Acta Horti.*, **490**: 463-468.
- Perez, E. A., Brunner, H. and Afza, R. (1998). Somatic embryogenesis in banana (*Musa* ssp.) cv. Lakatan and latundan. *Philippine-Journal of Crop-Science.*, **23**: 85.
- Quiroz, F., Rojas, R. and Loyola, V. (2006). Embryo production through somatic embryogenesis can be used to study cell differentiation in plants. *Plant Cell Tiss. and Org. Cult.*, **86**: 285-301.
- Raemakers, C. J. J. M., Jacobsen, E., and Visser, R. G. F. (1995). Secondary somatic embryogenesis and applications in plant breeding. *Euphytica*, **81**, 93-107.
- Rafalski, A., Tingey, S., Williams, J. G. K. (1999). Random amplified polymorphic DNA (RAPD) markers. In: Gelvin, S. B.; Schilperoort, R. M. S.; Verma, D. P. S., eds. Plant molecular biology manual, suppl. 6. Dordrecht: *Kluwer Academic Publishers* pp: 1-9.
- Raghavan, V. (1976). Experimental embryogenesis in vascular plants. Academic Press, London.
- Rahman, M., Hussain, D. and Zafar, Y. (2002). Estimation of genetic divergence among elite cotton cultivars-genotypes by DNA fingerprinting technology. *Crop Sci.*, **42**: 2137-2144.

- Rahman, M.H. and Rajora, O.P. (2001). Microsatellite DNA somaclonal variation in micropropagated trembling aspen (*Populus tremuloides*). *Plant Cell Rep.*, **20**: 531-536.
- Ramage, C.M., Borda, A.M., Hamill, S.D. and Smith, M.K. (2004). A simplified PCR test for early detection of dwarf off-types in micropropagated Cavendish banana (*Musa* spp. AAA). *Scientia Horti.*, **103**(1) 145-151.
- Rashid, A. (1988). Cell physiology and genetics of higher plants. 1: CRC Press, Boca Raton, Fla., 1-38, 67-103.
- Ratnaprakash, M.B., Santra, D.K., Tullu, A., Muehlbauer, F.J. (1998). Inheritance of inter simple sequence repeat polymorphism and linkage with fusarium wilt resistance gene in chickpea. *Theor. Appl. Genet.*, **96**: 348-353.
- Raven, P.H., Evert, R.E. and Eichhom, S.E. (1992). Biology of Plants. Worth Publishers.
- Ray, T., Dutta, I., Saha, P., Das, S. and Roy, S.C. (2006). Genetic stability of three economically important micropropagated banana (*Musa* spp.) cultivars of lower Indo-Gangetic plains, as assessed by RAPD and ISSR markers. *Plant Cell Tiss. Org. Cul.*, **85**(1), 11-18.
- Reinert, J. A. and Yeoman, M. M. (1982). Plant Cell and Tissue Culture. A Laboratory Manual (25 p).
- Reisch, B. and Bingham, E.T. (1980). The genetic control of bud formation from callus cultures of diploid alfalfa. *Plant Sci. Lett.* **20**: 71-77.
- Resmi, L. and Nair, A.S. (2007). Plantlet production from the male inflorescence tips of *Musa acuminata* cultivars from South India. *Plant Cell Tiss. Org. Cul.*, **88**: 333-338.
- Reuveni, O, Israeli, Y. and Eshadat Deganya H. (1986). Genetic variability in banana plants multiplied via *In vitro* techniques. IBPGR Final Report. 36p.
- Reuveni, O. & Israeli, Y. (1990). Measures to reduce somaclonal variation *In vitro* propagated bananas. *Acta Horti.*, **257**: 307-313.
- Reuveni, O., Israeli, Y. and Golubowicz, S. (1993). Factor influencing the occurrence of somaclonal variation in micropropagated bananas. *Acta Horticul.*, **336**: 357-384.
- Robinson, J. (1996). Bananas and plantains. Crop production science in horticulture series. CAB International, University Press, Cambridge, UK 238p.

- Robinson, J.C., Fraser, C. and Eckstein, K. (1993). A field comparison of conventional suckers with tissue culture banana planting material over three crop cycles. *J. of Horti. Sci.*, **68**: 831-836.
- Rodriguez, A.P.M. and Mendes, B.M.J. (1999). Embryogenesis in *Musa* spp.: comparative microscopical analysis of zygotic and somatic embryos. *In Vitro Cell and Devel. Biol.*, **35**:1095-1101.
- Rodriguez, A.P.M. and Wetstein, H.Y. (1994). The effect of auxin type and concentration on pecan (*Carya illinoensis*) somatic embryo morphology and subsequent conversion into plants. *Plant Cell Rep.*, **13**: 607-611.
- Rohif, F.J. (1998). NTSYS-pc: Numerical taxonomy and multivariate analysis system, version 2.1. Applied Biostatics., New York.
- Rynänen, L. and Aronen, T. (2005). Genome fidelity during short- and long-term tissue culture and differentially cryostored meristems of silver birch (*Betula pendula*). *Plant Cell, Tiss. and Org. Cult.*, **83**: 21-32.
- Sadik, K., Rubaihayo, P.R., Magambo, M.J.S. and Pillay, M. (2007). Generation of cell suspension of East African highland bananas through scalps. *Af. J. of Biotechnol.*, **6** (11):1352-1357.
- Sagi, L., Panis, B., Remy, S., Schoofs, H., De Smet, K., Swennen, R. and Cammue, B. P. A. (1995). Genetic transformation of banana and plantain (*Musa* spp.) via particle bombardment. *Biotechnol.*, **13**: 481-485.
- Sahijram, L., Soneji, J.R. and Bollama, K.T. (2003). Analyzing somaclonal variation in micropropagated bananas (*Musa* spp.). *In vitro Cellular and Developmental Biology-Plant.*, **39**: 551-556.
- Sales, E. K., Carlos, L. R. and Espino, R. R. C. (2001). Initiation of meristematic buds by benzyl amino purine on banana (*Musa* spp.) cultivars for somatic embryogenesis. *Philippine-Agricultural- Scientist.*, **84**: 72-75.
- Sanchez, M.C., San-Jose, M.C., Ballester, A. and Vieitez, A.M. (1996). Requirements for *in vitro* rooting of *Quercus robur* and *Qrubra rubra* shoots derived from mature trees. *Tree Physilo.*, **16**:673-680.
- Sandoval, J., Perez, L. and Cote, F. (1997). Estudio morfológico y de la estabilidad genética de plantas variantes de banano (*Musa* AAA cv “Gran Enano”) Etapas de cultivo *in vitro*, aclimatizació n y campo. *CORBANA.*, **22**(48): 41–60.
- Sandra, S., Cronauer, A. and Krikorian, D. (1984). Multiplication of *Musa* from excised stem tips. *Ann Bot.*, **53** (3): 321-328.

- Santos, A., Lopez, J., Cabrera, M., Montano, N., Reynaldo, D., Ventura, J.C., Medero, V., Garcia, M. M. and Stripes Basail, A. (2002). Obtaining embryos and establishment of embryogenic cell suspensions in banana clone 'Navolean' (AAB). *Plant Biotechnol.*, **2** (2): 107-109.
- Sarasan, V., Roberts, A.V. and Rout, G.R. (2001). Methyl laurate and 6-benzyladenine promote the germination of somatic embryos of a hybrid rose. *Plant Cell Rep.*, **20**: 183-186.
- Sauvaire, D. and Galzy, R. (1980). Une method de plantification experimental appliquee aux culture de tissue vegetaux. Example de la canne a sucre (*Saccharum* sp.). *Can. J. Bot.*, **58**: 264-269. *Develop. Biol.*, **23**: 665-670.
- Savangikar, V.A. (2004). Role of low cost options in tissue culture. Proceedings of low cost options for tissue culture technology in developing countries. FAO / IAEA Vienna, Austria 26-30 August 2002. pp 11-15.
- Schenk, R. U. and Hildebrandt, A. C. (1972). Medium and techniques for induction and growth of monocotyledonous and dicotyledonous plant cell cultures. *Can. J. Bot.*, **50**: 199-204.
- Schiavone, F.M and Cooke, T.J. (1987). Unusual patterns of somatic embryogenesis in the domesticated carrot: developmental effects of exogenous auxins and auxin transport inhibitors. *Cell Differentiation*, **21**: 53-62.
- Scholten, H.J. and Pierik, R.L.M. (1998). Agar as a gelling agent: chemical and physical analysis. *Plant Cell Rep.*, **17**: 230-235.
- Schoofs, H. (1997). The origin of embryogenic cells in *Musa*, Ph.D thesis, Dissertationes de Agricultura 330, Faculty of Agricultural and Applied Biological Science, K.U.Leuven, Belgium.
- Schoofs, H., Panis, B. and Swennen, R. (1998). Competence of scalps for somatic embryogenesis in *Musa*. Proceeding of the first International Symposium on Banana in the Subtropics. 10-14 November 1997. Puerto de la Cruz, Tenerife. Spain. *Acta Horti.*, **490**: 475-483.
- Schoofs, H., Panis, B., Strosse, H., Mayo, Mosqueda, A., Lopez, Torres, J., Roux, N., Dolezel, J. and Swennen, R. (1999). Bottlenecks in the germination and maintenance of morphogenic banana cell suspension and plant regeneration via somatic embryogenesis therfrom. *Infomusa.*, **8**: 3-7.
- Schoofs, H., Panis, B., Swennen, R. and Galan-Sauco, V. (1997). Competence of scalps for somatic embryogenesis in *Musa*. *Acta Horti.*, **490**: 475-483.

- Schukin, A., Ben Bassat, D., Israeli, Y. and Altman, A. (1997). Plant regeneration via somatic embryogenesis in Grand Naine banana and its effect on somaclonal variation. *Acta Horticulturae.*, **447**: 317-318.
- Schuller. A., Kirchner-Ness, R. and Reuther, G. (2000). Interaction of plant growth regulators and organic C and N components in the formation and maturation of *Abies alba* somatic embryos *Plant Cell Tiss and Org Cult.*, **60**: 23-31.
- Seitz, K.M.H and Bingham, E.T. (1988). Interactions of highly regenerative genotypes of alfalfa (*Medicago sativa*) and tissue culture protocols. *In vitro Plant Cell. and Develop Biol.*, **24**: 1047-1052.
- Shanmugavelu, M., Baytan, M.R., Chesnut, J.D. and Bonning, B.C., (2000). A novel protein that binds juvenile hormone esterase in fat body and pericardial cells of the tobacco horn worm *Manduca sexta* L. *J. Biol. Chem.*, **275**: (3) 1802–1806.
- Sharma, K.K. and Thorpe, T.A. (1995). Asexual embryogenesis in vascular plants in nature, pp. 17-71. In: *In vitro* embryogenesis in plants. TA Thorpe (ed). London: Kluwer Academic Publishers.
- Sharma, S.K. and Millam, S. (2004). Somatic embryogenesis in *Solanum tuberosum*: A histological examination of key developmental stages. *Plant Cell Rep.*, **23**:115-119.
- Sharp, W.R., Evans, D.A. and Sondahl, M.R. (1982). Application of somatic embryogenesis to crop improvement, pp. 759-762. In: Plant Tissue Culture 1982. A. Fujimura (ed). Proceedings 5th International Congress of Plant Tissue and Cell Culture, Japan, Japanese Association for Plant Tissue Culture.
- Shenoy, V. B. and Vasil, I. K., *Theor. Appl. Genet.*, 1992. **83**: 947–955.
- Shenoy, V.B. and Vasil, I.K. (1992). Biochemical and molecular analysis of plants derived from embryogenic tissue cultures of napier grass (*Pennisetum purpureum* K. Shurn), *Theor ApplGenet.*, **83**: 947-955.
- Shepherd, K. (1996). Mitotic instability in banana varieties. Aberrations in conventional triploid plants. *Fruits*, **51**: 99-103.
- Shetty, K. and McKersie, B.D. (1993). Proline, thioproline and potassium mediated stimulation of somatic embryogenesis in alfalfa (*Medicago sativa* L.). *Plant Sci.*, **88**: 185-193.
- Silvarolla, M.B. (1992). Plant genomic alterations due to tissue culture. *J. Brazil. Assoc. Adv. Sci.*, **44**:329-335.

- Silvia balboa filippi., Beatriz appezzato-da-Gloria, Adriana pinheiro., and Martinelli Rodriguez. (2001). Histological changes in banana explants, cv. Nanicao (*Musa* spp., Group AAA), submitted to different auxins for induction of somatic embryogenesis.
- Simmonds, N. W. (1962). The evolution of bananas. Longmans, London.
- Simmonds, N. W. (1966). Bananas, 2nd. Edition. Longmans, London.
- Simmonds, N. W. (1987). Classification and breeding of bananas. In: Banana and Plantain Breeding Strategies (ed. G. J. ersley and E. A. De :Langhe), pp. 78 – 83. INIBAP & ACIAR Proceeding No. 21. Cairns, Australia.
- Simmonds, N. W. (1995). Bananas. In: J. Smartt and N. W. Simmonds (eds). Evolution of Crop Plants, pp. 370 – 374, Longman Scientific & Technical/John Wiley & Sons, New York.
- Simmonds, N. W. and Shepherds, K. (1955). The taxonomy and origins of cultivated banana. *Jour. Linn. Soc. Lond. Bot.*, **55**: 302 – 312.
- Simmonds, N. W. and Weathrup, S. T. (1990). Numerical taxonomy of the wild bananas (*Musa*). *New Phytology*, **115**: 567-571.
- Simmonds, N.W., Weatherup, S.T.C. (1990). Numerical taxonomy of the cultivated bananas. *Tropical Agri.*, **67** (1):90-92.
- Smith, M. K. (1988). A review of factors influencing the genetic stability of micropropagated bananas. *Fruits.*, **43**: 219 – 223.
- Smith, M. K. and Drew, R.A. (1990). Current application of tissue culture for the propagation and improvement of bananas and plantain. *Australian Journal of Plant Physiology*. **17**:267-269.
- Sneath, P.H.A. and Sokal, R.R. (1973). A statistical method for evaluation systematic relationships. *University Kansas Sci. Bull.*, **38**: 1409-1438.
- Sonnino, A., Tanaka, S., Iwanaga, M and Schilde-Rentschler, L. (1989). Genetic control of embryo formation in anther culture of diploid potatoes. *Plant Cell Rep.*, **8**:105-107.
- Sree Ramulu, K., Dijkhuis, P. and Roest, S. (1983). Phenotypic variation and ploidy level of plants regenerated from protoplast of tetraploid potato (*solanum tuberosum* L. cv. ‘Bintje’). *Theoretical and Applied Genetics*, **65**: 329-338.

- Srinivasa Rao, N. K., Chacko, E. K., Dore Swamy, R. and Narayanasamy, S. (1982). Induction of growth in explanted inflorescence axis of banana. *Curr. Sci.*, **51**: 666-667.
- Stavarek, S.J., Croughan, T.P. and Rains, D.W. 1980. Regeneration of plants from long-term cultures of alfalfa cells. *Plant Sci. Lett.*, **19**: 253-261.
- Steward, F. C., *Sci. Am.*, (1963). **209**: 104–113.
- Steward, F.C., Mapes, M.O. and Smith, J. (1958). Growth and organized development of cultured cells. *Am. J. of Bot.*, 45: 693-704.
- Stover, R. H. (1987). Somaclonal variation in Grand Naine and Saba bananas in the nursery and in the field, pp. 136-139. In: *Banana and Plantain Breeding Strategies*. Persly, G.J and De Langhe, E.A. (eds). ACIAR Proceeding No.21, ACIAR, Canberra/
- Stover, R. H. (1988). Variation and cultivar nomenclature in *Musa* AAA group, Cavendish subgroup. *Frutis.*, **43**: 353-357.
- Stover, R. H. and Simmonds, N. W. (1987). Bananas, 3rd ed. Longman Scientific and Technical, New York.
- Straus. J. (1954). Maize endosperm tissue grown *in vitro*.II. Culture requirements. *Am. J. Botany.*,**41**:643-647.
- Street, H. and Withers, L. A. (1974). The anatomy of embryogenesis in culture. In: Street, H. E., ed. Tissue culture and plant science. London: Academic Press. pp71-100.
- Strosse H, Van den Hauwe I & Panis B. (2004). Banana cell and tissue culture-review. In: Jain SM & R. Swennen (eds). Banana Improvement: Cellular, Molecular Biology and Induced Mutations.
- Strosse, H., Domergue, R., Panis, B., Escalant, J. V. and Cote, F. (2003). Banana plantain embryogenic cell suspensions. INIBAP technical guidelines 8, in Vezina A, Picq C, International Network for the Improvement of Banana and Plantain, Montpellier, France. P.32
- Strosse, H., Schoofs, H., Panis, B., Andre, E., Reyniers, K. and Swennen, R. (2006). Development of embryogenic cell suspensions from shoot meristematic tissue in banana and plantain (*Musa* spp.) *Plant Sci.*, **170**: 104-112.

- Stuart, D.A. and Strickland, S.G. (1984). Somatic embryogenesis from cell cultures of *Medicago sativa* L. The role of amino acid additions to the regeneration medium. *Plant Sci. Lett.*, **34**: 165- 174.
- Sun, Z., Zhoo, C., Zheng, K., Xi, K. and Fu, Y. (1983). Somaclonal genetics of rice *Oryza sativa* L. *Theoretical and Applied Genetics.*, **67**: 67-73.
- Suprasanna, P., Panis, B., Sagi, I. and Swennen, R. (2002). Establishment of embryogenic cell suspension cultures from Indian banana cultivars, 3rd and Final Research Cordination Meeting of the FAO/IAEA on Cellular biology of banana. KUL, Leuven, Belgium.
- Swedlund, B. and Vasil, I.K. (1985). Cytogenetic characterization of embryogenic callus and regenerated plants of *Pennisetum americanum* (L.) K. Schum. *Theor. Appl. Genet.*, **69**: 575 -581.
- Swennen, R. and D. Vuylsteke. (1991). Bananas in Africa: Diversity, Uses and Prospects for Improvement. In: Crop Genetic Resources for Africa. (eds. N. Q. Ng, P. Perrino, F. Attere and H. Zedan), Vol. **2**: 151.
- Swennen, R. and E. De Langhe. (1985). Growth parameters of yield of plantain (*Musa* cv. AAB). *Ann. Bot.*, **56**: 197 – 204.
- Swennen, R. and F. Rosales. (1994). Bananas. In: C. Arntzen (Ed.) *Encyclopedia of Agricultural Science.*, Vol. 1. Academic Press, New York, pp. 215-232.
- Szabados, R., Hoyos, R and Roca, W. (1987). *In vitro* somatic embryogenesis and plant regeneration of cassava. *Plant Cell Rep.*, **6**:248-251.
- Takahata, Y. and Keller, W.A. (1991). High frequency embryogenesis and plant regeneration in isolated microspore culture of *Brassica oleracea* L. *Plant Science.*, **74**: 235-242.
- Takahata, Y., Brown, D.C. W., Keler, W.A. and Kainima, N. (1993). Dry artificial seeds and desiccation tolerance induction in microspore-derived embryos of broccoli. *Plant Cell Tiss and Org Cult.*, **235**: 121 - 129.
- Terzi, M, Loschiavo F. 1990. Somatic embryogenesis. In: Bhojwani SS, ed. Plant Tissue Culture: Applications and Limitations. Elsevier, Amsterdam, pp. 54-56.
- Tezenas du Montcel, H. (1987). Plantain bananas. The Agriculturist. CTA, Macmillan, 106 pp.
- Tezenas du Montcel, H. and Devos, P. 1978. Proposal for establishing a plantain determination card. *Paradisiaca.*, **3**: 14 – 17.

- Timmers, A.C.J. (1993). Imaging of polarity during zygotic and somatic embryogenesis of carrot (*Daucus carota* L.), 123 p. Ph D thesis. Wageningen, The Netherlands.
- Tingey, S. V. and del Tufo, J. P. (1993). Genetic analysis with random amplified polymorphic DNA markers. *Plant Physiol.*, **101**: 349-352.
- Titov, S., Bhowmik, S.K., Mandal, A., Alam, M.S. and Uddin, S.N. (2006). Control of phenolic compound secretion and effect of growth regulators for organ formation from *Musa* spp. Cv Kanthali floral bud explants. *Am. J. Biochem Biotechnol* **2** (3):97 – 104
- Tomes, D.T. and Smith, O.S. (1985). The effect of parental genotype on initiation of embryogenic callus from elite maize (*Zea mays* L.) germplasm. *Theoretical and Applied Genetics.*, **70**: 505-509.
- Toonen, M.A.J., Hendriks, T., Schmidt, E.D.L., Verhoeven, H.A., Van Kammen, A. and De Vries, S.C. (1994). Description of somatic embryo forming single cells in carrot suspensioncultures employing video cell tracking. *Planta.*, **194**:565–572.
- Torrey, J.G. (1959). Experimental modification of development in the root, pp. 189-222. In: *Cell, organism and milieu*. D Rudnick (ed). New York: Ronald Press.
- Trewavas, A. (1981). How do plant growth substances work. *Plant Cell Environ.*, **4**:203–228.
- Trigiano, R.N. and Conger, B.V. (1987). Regulation of growth and somatic embryogenesis by proline and serine suspension cultures of *Dactylis glomerata*. *J. Plant Physiol.*, **130**:49-55.
- Turner, D. W. (1994). Bananas and Plantains. In: Handbook of Environment Physiology of Fruits Crops. Vol. 11: Subtropical and Tropical Crops. (eds. Schaffer, B. and P. C. Anderson). CRC Press Inc. pp. 37 – 64.
- Uma, S., Akbar, A., Saraswathi, M.S. and Mustaffa, M. M. (2007). Response of Indian banana cultivars to plant regeneration through embryogenic cell suspension. In *Promusa* symposium- Recent advances in banana crop protection for sustainable production and improved livelihoods. September 10-14. pp 80.
- Uma, S., S. Sathiamoorthy and P. Durai, (2005). Banana – Indian genetic resources and catalogue NRCB (ICAR), Tiruchirapalli, India. Pp. 237.
- Valmayor, R.V. (2001). Classification and characterization of *Musa exotica*, *M.alinsanaya* and *M. acuminata* ssp. *The Philippine Agricultural Scientist* **84**:325-331.

- Van Den Howe, (1998). Bacterial contamination in *Musa* shoot tip cultures, *Acta Hort.* **490**: 485-492.
- Van Winkle, S. and Pullman, G.S. (2003). The combined impact of pH and activated carbon on the elemental composition of plant tissue culture media. *Plant Cell Rep.*, **22**:303-311.
- Varshney, A., Lakshmikumaran, M., Srivastava, P. S., Dhawan, V. (2001) Establishment of genetic fidelity of in vitro-raised *Lilium* bulbets through RAPD markers. *In vitro Cell. Dev. Biol. Plant.*, **37**:227–231.
- Vasil, I. K. (1987). Developing cell and tissue culture systems for the improvement of cereal and grass crops. *J. of Plant Physiol.*, **128**:193-218.
- Vasil, I. K., Lu, C. and Vasil, V. (1985). *Protoplasma.*, 127: 18.
- Vasil, I.K. (1988). Progress in the regeneration and genetic manipulation of cereal crops. *Biotech.*, **6**:397-402.
- Vasil, I.K. (1994). Automation of plant propagation. *Plant Cell Tiss. Org. Cult.*, **39**:105-108.
- Vasil, V. and Vasil, I.K. (1982). Somatic embryogenesis and plant regeneration from tissue cultures of *Pennisetum americanum* and *P. americanum* x *P.purpureum* hybrid. *American J of Bot.*, **68**:864-872.
- Vendrame, W.A., Kochert, G. and Wetzstein, H.Y. (1999). AFLP analysis of variation in pecan somatic embryos. *Plant Cell Rep.*, **18**: 853–857
- Venkatachalam, L., Sreedhar, R. V., Bhagyalakshmi, N. (2007). Genetic analysis of micropropagated and regenerated plantlets of banana as assessed by RAPD and ISSR markers. *In vitro Cell Dev. Biol.-Plant.*, **43**: 267-274.
- Verdus, M.C., Dubois, T., Dubois, J and Vasseur, J. (1993). Ultrastructural changes in Leaves of *Cichorium* during somatic embryogenesis. *Ann. of Bot.*, **72**:375-383.
- Vidal MDC and De Garcia E (2000). Analysis of *Musa* spp. Somaclonal variant resistant to yellow Sigatoka. *Plant Mol Biol Repr* **18**: 23-31.
- Vuylsteke, D. (1998). Field performance of banana micropropagules and somaclones. In: Jain SM, Brar DS & Ahloowalia BS (eds) Somaclonal Variation and Induced Mutation in Crop Improvement (pp 219–231). Kluwer, Academic Publishers, Dordrecht

- Vuylsteke, D. (2001). Strategies for utilization of genetic variation in plantain improvement. Ph.D Thesis, Leuven, K U Belgium, PP:207.
- Vuylsteke, D. and De Langhe, E. (1985). Feasibility of *In vitro* propagation of bananas and plantain. *Tropical Agricultura* (Trinidad) **62**: 323-328.
- Vuylsteke, D. and Ortiz, R. (1996). Field performance of conventional vs. *In vitro* propagules of plantain (*Musa* spp., AAB group). *Hort. Sci.*, **31** (5): 862 – 865.
- Vuylsteke, D. and Swennen, R. (1993). Genetic improvement of plantains. In: (INIBAP) Proceeding of the workshop on Biotechnology Applications for Banana and Plantain Improvement, San Jose, Costa Rica, 27-31 January. pp. 169-176.
- Vuylsteke, D., R. Swennen and E. De Langhe. (1991). Somaclonal variation in plantains (*Musa* spp. AAB group) derived from shoot-tip culture. *Fruits.*, **46**: 429-439.
- Vuylsteke, D., Swennen, R., Wilson, G. F. and De Langhe, E. (1988). Phenotypic variation among *In vitro* propagated plantain (*Musa* spp. Cv. AAB). *Scientia Hort.*, **36**: 79 – 88.
- Walden, R. and Wingender, R. (1995). Gene-transfer and plant-regeneration techniques. *Trends in Biotechnology*. **13**:324–331.
- Walker, K.A. and Sato, S.J. (1981). Morphogenesis in callus tissue of *Medicago sativa*: the role of ammonium ion in somatic embryogenesis. *Plant Cell Tiss. and Org. Cult.*, **1**: 109-121.
- Walker, K.A., Wendeln, M.L. and Jaworski, E.G. (1979). Organogenesis in callus tissue of *Medicago sativa*. The temporal separation of induction processes from differentiation processes. *Plant Sci. Lett.*, **16**: 23-30.
- Walker, K.A., Yu, P.C., Sato, S.J. and Jawoski, E.G. (1978). The hormonal control of organ formation in callus of *Medicago sativa* L. cultured *in vitro*. *Am. J. Bot.*, **65**: 654-659.
- Wang Xiao, Xue-Lin Huang, Xia Huang, Ya-Ping Chen, Xue-Mei Dai, and Jie-Tang Zhao. (2007). Plant regeneration from protoplasts of *Musa acuminata* cv. Mas (AA) via somatic embryogenesis. *Plant Cell Tiss. and Org. Cult.*, **90**: 191-200.
- Wang, P.J. and Huang, L.C. (1976). Beneficial effects of activated charcoal on plants tissue and organ culture. *In vitro.*, **12**: 260- 262.

- Wardle, K., Dobbs, E.B. and Short, K.C. (1983). *In vitro* acclimatization of aseptically cultured plantlets to humidity. *J. Am. Soc Hort Sci.*, **108**: 386–389.
- Wei, Y.R., Hung, X.L., Li, J., Hung, X., Li, Z and Li, X.J. (2005). Establishment of embryogenic cell suspension culture and plant regeneration of edible banana *Musa acuminata* cv. Mas (AA). *Chin. J. of Biotech.*, **21**:58-65.
- Weising, K., Nybom, H., Wolf, K. and Kahl, G. (2005). DNA Finger Printing in Plants. Second edition. CRC Press, Taylor & Francis, pp. 444.
- Wenzel, C.L. and Brown, D.C.W. (1991). Histological events leading to somatic embryo formation in cultured petioles of *alfalfa*. *In Vitro Cell, Dev. Biol.*, **27**: 190- 196.
- West, M.A.L and Harada, J.J. (1993). Embryogenesis in higher plants. *The Plant Cell*. **5**:1361-1369.
- Wiggans, S.C. (1954). Growth and organ formation in callus tissues derived from *Daucus carota*. I. Growth and division of freely suspended cells. *Am. J. of Bot.*, **41**: 321-326.
- Williams E.G., and Maheswaran, G. (1986). Somatic embryogenesis: Factors influencing coordinated behaviour of cells as an embryogenic group. *Ann. Bot.* **57**: 443-462.
- Williams, E.G., Taylor, N.L., Van den Bosch, J. and Williams, W.M. (1990). Registration of tetraploid hybrid clover germplasm from the cross of *Trifolium ambiguum* and *T repens*. *Crop Sci.*, **30**: 427.
- Wirakarnain, S., Hossain, A.B.M.S. and Chandran, S. (2008). Plantlet production through development of competent multiple meristem cultures from male inflorescence of banana, *Musa acuminata* cv. ‘Pisang Mas’ (AA).
- Wong, W. C., Jalil, M., Ong-Abdullah, M., Othman, R. Y., Khalid, and N., (2006). Enhancement of banana plant development by incorporating a liquid-based embryo development medium for embryogenic cell suspension. *J. for Horti. Sci. and Biotechnol.*, **81**: 385-390.
- Wright, N.S. (1983). Uniformity among virus-free clones of ten potato cultivars. *Am. Potato J.* **60**: 381-388.
- Wu, S. Kriz, A.L. and Widholm, J.M. (1994). Nucleotide sequence of amaize cDNA for a class II, acidic 13-1,3-glucanase. *Plant Physiol.*, **106**:1709-1710.

- Xu, C. X., Panis, B., Strosse, H., Li, H. P., Xiao, H. G., Fan, H. Z. and Swennen, R. (2005). Establishment of embryogenic cell suspensions and plant regeneration of the dessert banana 'Williams' (*Musa* AAA group). *J.of Horti. Sci. and Biotechnol.*, **80**: 523-528.
- Yeung, E.C. (1995). Structural and developmental patterns in somatic embryogenesis, pp. 203-247. In: *In vitro* embryogenesis in plants. TA Thorpe (ed). London: Kluwer Academic Publishers.
- Zaffari, G., Kerbaui, G., Kraus, J. and Romano, E. (2000). Hormonal and histological studies related to *in vitro* banana bud formation. *Plant Cell, Tissue and Organ Culture.*, Vol. 63, no. 3, p. 187-192.
- Zaid, A., Hughes, H.: Water loss and polyethylene glycol-mediated acclimatization of *In vitro* grown seedlings of 5 cultivars of date palm (*Phoenix dactylifera* L.) plantlets. - *Plant Cell Rep.*, **14**: 385-388.
- Zietjiewicz, E., Rafalski, A. and Labuda, D. (1994). Genome fingerprinting by simple sequence repeat (SSR) - anchored Polymerase chain reaction amplification. *Genomics.* **20**:176-183.