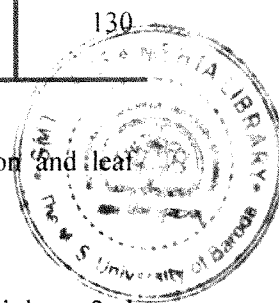


BIBLIOGRAPHY





Abeles, F. B. and Rubinstein, B., (1964) Regulation of ethylene evolution and leaf abscission by auxin. *Plant Physiol* 39, 966-969.

Abeles, F. B., Morgan, P. W. and Saltveit, M. E., (1992) *Ethylene in plant biology*, 2nd ed. Academic Press, New York.

Abdelgadir, H. A., Johnson, S. D. and Van Staden, J., (2008) Approaches to improve seed production of *Jatropha curcas* L. *South Afr J Botany* 74, 359-368.

Abdelgadir, H.A., Johnson, S.D. and Van Staden, J., (2009) Promoting branching of a biofuel crop *Jatropha curcas* L. by foliar application of plant growth regulators. *Plant Growth Regulation* 58, 287-295.

Abdelgadir, H. A., Johnson, S. D. and Van Staden, J., (2010) Influence of plant growth regulators on flowering, fruiting, seed oil content, and oil quality of *Jatropha curcas* L. *South Afr J Botany* 76, 440-446.

Achard, P., Vriezen, W. H., Van Der Straeten, D. and Harberd, N. P., (2003) Ethylene regulates *Arabidopsis* development via the modulation of della protein growth repressor function. *Plant Cell* 15, 2816-2825.

Achard, P., Baghour, M., Chapple, A., Hedden, P., Van Der Straeten, D., Genschik, P., M. and Harberd, N. P., (2007) The plant stress hormone ethylene controls floral transition via DELLA-dependent regulation of floral meristem-identity genes. *Proc Natl Acad Sci* 104, 6484-6489.

Achten, W. M. J., Verchot, L., Franken, Y. J., Mathijs, E., Singh, V. P. and Aerts, R., (2008). *Jatropha* bio-diesel production and use. *Biomass Bioenergy* 32(12), 1063-1084.

Aebi, H., (1974) *Methods of enzymatic analysis*. Academic press, New York, 676-684.

- Agrawal, A. K., (1998) Vegetable oils verses diesel fuel: development and use of biodiesel in a compression ignition engine. *TIDE* 8(3), 191-204.
- Almeida, I. M. L. Rodrigues, J. D. and Ono, E. O., (2004) Application of Plant Growth Regulators at Pre-harvest for Fruit Development of 'PERA' Oranges. *Brazilian Archives Biological Techechnology* 47, 511-520.
- Angenent, G. C., Franken, J., Busscher, M., Weiss, D., and Van. T. A. J., (1994) Co-suppression of the petunia homeotic gene *fbp2* affects the identity of the generative meristem. *Plant J.* 5, 33-44.
- Anke, J. and Jong, D., (2002) A critical role for ethylene in hydrogen peroxide release during programmed cell death in tomato suspension cells. *Planta* 214, 537- 545.
- Armstrong, W., (1979) Aeration in higher plants. *Adv Bot Res* 7, 225-352.
- Arteca, J. M. and Arteca, R. N. (1999) A multi-responsive gene encoding 1-aminocyclopropane-1-carboxylate synthase (ACS6) in mature *Arabidopsis* leaves, *Plant Mol. Biol.* 39, 209-219.
- Arteca, R. (1996). *Plant Growth Substances: Principles and Applications*. New York: Chapman & Hall.
- Armstrong, J. and Armstrong, W., (1994) Chlorophyll development in mature lysigenous and schizogenous root aerenchymas provides evidence of continuing cortical cell viability. *New Phytol* 126, 493-497.
- Asada K (1999) The water- water cycle in chloroplast: scavenging of active oxygens and dissipation of excess photons. *Ann Rev Plant Physiol Plant Mol Biol* 50: 601– 639
- Atsmon, D., Lang, A. and Light, E. N., (1968) Contents and recovery of gibberellins in monoecious and gynoeceous cucumber plants. *Plant Physiol.* 43, 8096-810.

- Atsmon, D. and Tabbak, C., (1979) Comparative effects of gibberellin, silver nitrate and aminoethoxyvinyl glycine on sexual tendency and ethylene evolution in cucumber plant (*Cucumis sativus L.*). *Plant Cell Physiol* 20, 1547-1555.
- Azam, M. M., Waris, A. and Nahar, N. M., (2005) Prospects and potential of fatty acid methyl esters of some non-traditional seed oils for use as biodiesel in India. *Biomass Bioenergy* 29, 293-302.
- Barlow, P. W., (1982) Cell death- an integral part of plant development. In: Jackson MB, Grout B. Mackenzie IA (eds) *Growth regulators in plant senescence*. British Plant Growth Regulator group, Wantage 27-45.
- Bartley, G. E. and Ishida, B. K. (2003) Developmental gene regulation during tomato fruit ripening and in-vitro sepal morphogenesis, *BMC. Plant Biol.* 3-4.
- Bartoli, C. G., Simontacchi, M., Guamet, J., Montaldi, E. and Puntarulo, S., (1995) Antioxidant enzymes and lipid peroxidation during aging of *Chrysanthemum morifolium* RAM petals. *Plant Sci* 104, 161-168.
- Bangerth, F., (2000) Abscission and thinning of young fruit and their regulation by plant hormones and bioregulators. *Plant Growth Regul* 31, 43-59.
- Benlloch, R., Berberl. A., Mislata. A. S. and Madueno. F., (2007) Floral initiation and inflorescence architecture: A comparative view. *Annals of Bot* 100, 659-676.
- Berrios, J., Illanes, A. and Aroca, G. (2004). Spectrophotometric method for determining gibberellic acid in fermentation broths. *Biotech Lett.* 26:67-70.
- Bernier, G. and Périlleux, C., (2005) A physiological overview of the genetics of flowering time control. *Plant Biotechnology Journal* 3, 3-16.

- Bernier, G., Havelange, A., Houssa, C., Petitjean, A. and Lejeune, P., (1993) Physiological signals that induce flowering. *The Plant Cell* 5, 1147-1155.
- Bernier, G., Corbesier, L. and Périlleux, C., (2002) The flowering process: on the track of controlling factors in *Sinapsis alba*. *Russian Journal of Plant Physiology* 49, 445-450.
- Bethke, P. C., Lonsdale, J. E., Fath, A. and Jones, R. L., (1999) Hormonally regulated programmed cell death in barley aleurone cells. *Plant Cell* 11, 1033-1045.
- Benschop, J. J., Bou, J., Peeters, A. J. M., Wagemaker, N., Guhl, K., Ward, D., Hedden, P., Moritz, T. and Voesenek, L. A. C. J., (2006) Long-term submergence-induced elongation in *Rumex palustris* requires abscisic acid-dependent biosynthesis of gibberellin. *Plant Physiol* 141, 1644-1652.
- Beyer, E. M., (1976) A potent inhibitor of ethylene action in plants, *Plant Physiol* 58, 268-271.
- Bhattacharya, A., Datta, K. and Datta, S. K., (2005) Floral biology, floral resource constraints and pollination limitation in *Jatropha curcas* L. *Pak J Biological Sci* 8(3), 456-60.
- Biddle, E., Kerfoot, D., G., S., Kho, Y., H. and Russel, K., E., (1976) Kinetic studies of the thermal decomposition of 2-chloroethylphosphonic acid in aqueous solution. *Plant Physiol* 58, 700-702.
- Blazquez, M. A. and Weigel, D., (2000) Integration of floral inductive signals in *Arabidopsis*. *Nature* 404, 889-892.
- Blazquez, M. A., Green, R., Nilsson, O., Sussman, M. R., and Weigel, D. (1998) Gibberellins promote flowering of *arabidopsis* by activating the *LEAFY* promoter. *Plant Cell* 10, 791-800.

-
- Bleecker, A. B. and Patterson, S. E., (1997) Last exit: senescence, abscission, and meristem arrest in *Arabidopsis*. *Plant Cell* 9, 1169-1179.
- Bligh, B. G. and Dyer, W. J., (1959) A rapid method for total lipid extraction and purification. *Can. J. Biochem. Physiol.* 37, 911-917.
- Bonner, L. J. and Dickinson, H. G., (1989) Anther dehiscence in *Lycopersicon esculentum* Mill. *New Phytologist* 113, 97-115.
- Botella, J. R., Schlagnhauser, C. D., Arteca, R. N., and Phillips, A. T. (1992) Identification and characterization of three putative genes for 1-aminocyclopropane-1-carboxylate synthase from etiolated mung bean hypocotyl segments. *Plant Mol Biol* 18, 793-797.
- Bozhkov, P. V., Filonova, L. H. and Suarez, M. F., (2005) Programmed cell death in plant embryogenesis. *Curr. Top. Dev. Biol.* 67, 135-179.
- Bradford, K. and Trewavas, A., (1994) Sensitivity thresholds and variable time scales in plant hormone action. *Plant Physiol* 105, 1029-1036.
- Brailsford, R. W., Voesenek, L. A. C. J., Blom, C. W. P. M., Smith, A. R., Hall, M. A. and Jackson, M. B., (1993) Enhanced ethylene production by primary roots of *Zea mays* L. in response to sub-ambient partial pressures of oxygen. *Plant Cell Environ* 16, 1071-1074.
- Brenner, W. G., Romanov, G. A., Kollmer, I., Burkle, L. and Schumling, T., (2005) Immediate-early and delayed cytokinin response genes of *Arabidopsis thaliana* identified by genome-wide expression profiling reveal novel cytokinin-sensitive processes and suggest cytokinin action through transcriptional cascades. *Plant J* 44, 314-333.

- Buchanan, W. V., (1997) The molecular biology of leaf senescence. *J. Exp. Bot.* 48, 181-199.
- Buckner, B., Janick Buckner, D., Gray, J. and Johai, G. S., (1998) Cell death mechanism in maize. *Trends Plant Sci* 3, 218-223.
- Burg, S. P. and Burg, E., (1967). Molecular requirement for the biological activity of ethylene. *Plant Physiology* 42, 144-152.
- Butenko, M. A., Patterson, S. E., Grini, P. E., Stenvik, G. E., Amundses, S.S., Mandal, A. and Aalen, R. B., (2003) Inflorescence deficient in abscission controls floral organ abscission in *Arabidopsis* and identifies a novel family of putative ligands in plants. *Plant Cell* 15, 2296-2307.
- Daphne, B., Osborne, J., Michael T. and Manus, M. C., (2005) Hormones, signals and Target Cells in Plant Development. Published, Cambridge University Press, 158.
- Calderon-Urrea, A. and Dellaporta, S., (1999) Cell Death and cell protection genes determine the fate of pistils in maize. *Development* 126, 435-441.
- Caporali, E., Spada, A., Marziani, G., Failla, O. and Scienza, A., (2003) The arrest of development of abortive reproductive organs in the unisexual flower of *Vitis vinifera* spp, *silvestris*. *Sexual Plant Reproduction* 15, 291-300.
- Carvalho, C. R., Clarindo, W. R., Praça, M. M., Araújo, F. S. and Carels, N. (2008) Genome size, base composition and karyotype of *Jatropha curcas* L., an important biofuel plant. *Plant Sci* 174, 613-617.
- Chailakhyan, M. K. H., (1979) Genetic and hormonal regulation of growth, flowering, and sex expression on plants. *American Journal of Botany* 66, 717-736.

- Chang-wei, L., Kun, L., You, C., Yong-yu, S. and Wen-yun, Y., (2007) Pollen viability, stigma receptivity and reproductive features of *J. curcas* L. (Euphorbiaceae). J Northwest Plant 27(10), 1994–2001.
- Chang-wei, L., Kun, L., You, C. and Yong-yu, S., (2007) Floral display and breeding system of *Jatropha curcas* L. Forum Stud China 9(2), 114–119.
- Chen, H., Banerjee, A. K. and Hannapel, D. J., (2004) The tandem complex of BEL and KNOX partners is required for transcriptional repression of *ga20ox1*. Plant J 38, 276–284.
- Chhabra, S. C., Mahunnah, L. A. and Mshiu, E. N., (1990) Plants used in traditional medicine in eastern Tanzania. III. Angiosperms Euphorbiaceae to Menispermaceae. J. Ethnopharmacol. 28, 255-283.
- Chance, B. and Maehly, A. C., (1955) Methods in Enzymology 11, 773-775.
- Chandler, J. W., (2010) The Hormonal Regulation of Flower Development. 10.1007/s00344-010-9180-x.
- Davies, P. J., (1995). Plant Hormones: Physiology, Biochemistry and Molecular Biology. Dordrecht: Kluwer.
- Deborah, L. S. and John, W. E., (1983) Cytokinin stimulation of abscission in lemon pistil explants. Jour of Plant Grow Reg 2, 73-80.
- Dehgan, B., (1984) Phylogenetic significance of interspecific hybridization in *Jatropha* (Euphorbiaceae). Syst Bot 9(4), 467-478.
- Dellaporta, S. L. and Calderon-Urrea, A., (1994) The sex determination process in maize, Science 266, 1501-1505.

- Dhillon, R. S., Hooda, M. S., Handa, A. K., Ahlawat, K. S. and Kumar, Y. S., (2006) Clonal propagation and reproductive biology in *Jatropha curcas* L. Indian J Agroforest 8(2), 18-27.
- Divakara, B. N., Upadhyaya, H. D., Wani, S. P. and Laxmipathi Gowda, C.L., (2009) Biology and genetic improvement of *Jatropha curcas* L.: A review. Applied Energy 111-121.
- Dixon, R. A., Harisson, M. J. and Lamb, C. J., (1994) Early events in the activation of plant defense responses. Annu Rev Phytopathol 32, 479-501.
- Drew, M. C., (1997) Oxygen deficiency and root metabolism: inquiry and acclimation under hypoxia and anoxia. Annu Rev plant Physiol Plant Mol Biol 48, 223-250.
- Drew, M. C., Chuan-Jui, H. and Morgan, P. W., (2000) Programmed cell death and aerenchyma formation in roots. Trends Plant Sci 5, 123-127.
- Drew, M. C., Jackson, M. B. and Giffard, S., (1979) Ethylene promoted adventitious rooting and development of cortical air spaces in *Zea mays* L. Planta 147, 83-88.
- Droit, S., (1932) Recherches sur la graine et l'huile de Purghère ou Pignon d'Inde (*Jatropha curcas* L.). Dissertation, Université de Paris, Faculté de Pharmacie, Paris.
- Durand, B., (1969) Selection de genotypes males de *Mercurialis annua* L. (2n=16) en fonction de leur sensibilité aux cytokinines. Comptes Rendu de L'Académie des sciences Paris, série D 268, 2409-2501.
- Durand, B., Durand, R., (1991) Male sterility and restored fertility in annual mercuries, relations with sex differentiation. Plant Science 80, 107-118.
- El-Otmani, M., (1992) Usos principais de reguladores de crescimento na produção de citros, Paper presented at Seminario Internacional de Citros, Bebedouro, Brazil.

- Ellis, R.E., Yuan, J. and Horvitz, H.R., (1991). Mechanisms and functions of cell death. *Annu. Rev. Cell Biol.* 7, 663–698.
- Evenson, R. E. and Gollin, D. (2003) Assessing the impact of the green revolution, 1960 to 2000, *Science* 300, 758-762.
- Faegri, K., Pijl, V. D. L., (1979) *The principles of pollination ecology*. 3rd ed. Oxford: Pergamon Press.
- Fernandez, G. N., Carvajal, M. and Olmos, E., (2004) Graft union formation in tomato plants: Peroxidase and Catalase involvement. *Annals of Bot* 93, 53-60.
- Fiserova, H., Mikusova, Z., Klems, M., (2008) Estimation of ethylene production and 1-aminocyclopropane-1-carboxylic acid content in plants by means of gas chromatography. *Plant soil environ.* 54(2), 55-60.
- Foidl, N., Foidl, G., Sanchez, M., Mittelbach, M., Hackel, S. (1996) *Jatropha curcas* L. as a source for the production of biofuel in Nicaragua. *Bioresource Technology* 58, 77-82.
- Fortin, C. and Campbell, P. G. (2001) Thiosulfate enhances silver uptake by a green alga: role of anion transporters in metal uptake. *Environ. Sci. Technol.* 35, 2214-2218.
- Foyer, C. H., Lopez-Delgado, H., Dat, J., Scott, I. M., (1997) Hydrogen peroxide and glutathione associated mechanisms of acclimatory stress tolerance and signaling. *Plant Physiol* 100, 241-254.
- Frigerio, M., Alabadi, D., Perez-Gomez, J., Gracia-Cacel, L., Phillips, A. L., Hedden, P. and Blazquez, M. A., (2006) Transcriptional regulation of gibberellins metabolism genes by auxin signaling in *Arabidopsis*. *Plant Physiol* 142, 553–563.

- Fu, X. D. and Harberd, N., (2003) Auxin promotes *Arabidopsis* root growth by modulating gibberellin response. *Nature* 421, 740–743.
- Fukuda, H., (2000) Programmed cell death of tracheary elements as a paradigm in plants. *Plant Molecular Biology* 44, 245-253.
- Gaffron, H. and Rubin, J., (1942) Fermentative and photochemical production of hydrogen in algae, *J. Gen. Physiol.* 26, 219-240.
- Gera, N., Gera, M. and Purohit, M., (1976) Source variation in seed and germination characteristics in *Acacia nilotica* ex Del. *Seed Research* 28, 27–31.
- Ghaemi, M., Sarrafi, A. and Alibert, G., (1994) The effects of silver nitrate, colchicine, cupric sulfate and genotype on the production of embryoids from anthers of tetraploid wheat (*Triticum turgidum*). *Plant Cell, Tissue and Organ Culture* 36, 355-359.
- Ghirardi, M. L., Togasaki, R. K., and Seibert, M., (1997) Oxygen sensitivity of algal H₂-production, *Appl Biochem Biotechnol* 63, 141-151.
- Ghosh, S. and Basu, P. S., (1983) Hormonal regulation of sex expression in *Momordica charantia*. *Physiologia Plantarum* 57, 301-305.
- Giluliani, C., Consonni, G., Gavazzi, G., Colombo, M. and Dolfini, S., (2002) Programmed cell death during embryogenesis in maize. *Annals of Botany* 90, 287-292.
- Ginwal, H. S., Phartyal, S. S., Rawat, P. S. and Srivastava, R.L., (2005) Seed source variation in morphology, germination and seedling growth of *Jatropha curcas* Linn, in Central India. *Silvae Genetica* 54, 76–80.

- Gordon, S. A. and Weber, R. P., (1951). Colorimetric estimation of indole-acetic acid. *Plant Physiol.* 26, 192–195.
- Goto, N. and Pharis, R. P., (1999) Role of gibberellins in the development of floral organs of gibberellin- deficient mutant, *gal-1*, of *Arabidopsis thaliana*. *Canadian Journal of Botany* 77, 944–954.
- Grant, V., (1981) *Plant speciation*. 2nd ed. New York: Columbia University Press.
- Grant, S., Houben, A., Vyskot, B., Siroky, J., Pan, W.H., Macas, J., and Saedler, H., (1994) Genetics of Sex Determination in Flowering. *Plants Dev Genet* 15, 214–230.
- Grauwe, L. D., Dugardeyn, J. and Straeten, D. V. D., (2008) Novel mechanisms of ethylene-gibberellin crosstalk revealed by the *gai eto2-1* double mutant. *Plant Sign Beh* 3(12), 1113–1115.
- Greenberg, J. T., (1996). Programmed cell death: A way of life for plants. *Proc. Natl Acad. Sci. USA* 93, 12094–12097.
- Greenboim-Wainberg, Y., Maymon, I., Borochoy, R., Alvarez, J., Olszewski, N., Ori, N., Eshed, Y. and Weiss, D., (2005) Cross talk between gibberellin and cytokinin: the *Arabidopsis* GA-response inhibitor SPINDLY plays a positive role in cytokinin signaling. *Plant Cell* 17, 92–102.
- Grennan, A. K., (2006) “Gibberellin Metabolism Enzymes in Rice”. *Plant Physiol* 141(2), 524–528.
- Grierson, D., Kear, R. J., Thompson, J. R. and Garcia-Mora, R., (1982) Stimulation of in vitro RNA synthesis by pre-treating plants with auxins is due to auxin-induced ethylene production. *Zeitschrift für Pflanzenphysiologie* 107, 419–426.

- Griffiths, C. M., Hosken, S. E., Oliver, D., Chojecki, J. and Thomas, H., (1997) Sequencing, expression pattern and RFLP mapping of a senescence-enhanced cDNA from *Zea mays* with high homology to oryzain and aleurain. *Plant Mol Biol* 34, 815-821.
- Gubitz, G. M., Mittelbach, M. and Trabi, M.. (1999) Exploitation of the tropical oil seed plant *Jatropha curcas* L. *Bioresour Technol* 67, 73-82.
- Gunawardena, A. H. L. A. N., Greenwood, J. S. and Dengler, N. G., (2004). Programmed cell death remodels lace plant leaf shape during leaf development. *The Pant Cell* 16, 60-73.
- Gunawardena, A. H. L. A. N., Greenwood, J. S. and Dengler, N. G., (2007) Cell wall degradation and modification during programmed cell death in lace plant, *Aponogeton madagascariensis* (Aponogetonaceae). *American Journal of Botany* 94, 1116-1128.
- Gunawardena, A. H. L. A. N., Navachandrabala, C., Kane, M. and Dengler, N. G., (2006) Lace plant: a novel system for studying developmental programmed cell death In: da Silva JAT, ed. *Floriculture, ornamental and plant biotechnology advances and topical issues*. Middlesex, UK: Global Science Books Ltd. 157-162.
- Gunawardena, A. H. L. A. N., Pearce, D. M., Jackson, M. B., Hawes, C. R. and Evans, D. E, (2001a) Characterization of programmed cell death during aerenchyma formation induced by ethylene or hypoxia in roots of maize (*Zea mays* L.). *Planta* 212, 205-214.
- Gunawardena, A. H. L. A. N. and Lord, C. E. N., (2011) Environmentally induced programmed cell death in leaf protoplasts in *Aponogeton madagascariensis*. *Planta* 233, 407-421.

-
- Guo, H. and Ecker, J. R., (2004) The ethylene signalling pathway: new insights. *Curr Opin Plant Biol* 7, 40–49.
- Gustafson, F. G. and Houghtaling, H. B. (1939) Relation between fruit size and food supply in the tomato. *Plant Physiol* 14, 321-332.
- Halliwell, B. and Gutteridge, J. M. C., (1989) *Free Radicals in Biology and Medicine*. Ed 2nd. Clarendon Press, Oxford.
- Hao, Y. J., Wang, D. H., Peng, Y. B., Bai, S. L., Xu, L. Y., Li, Y. Q., Xu, Z. H. and Bai, S. N., (2003) DNA damage in the early primordial anther is closely correlated with stamen arrest in the female flower of cucumber (*Cucumis sativus* L.). *Planta* 217, 888-895.
- Hao, Y., Toshiro, I., Zhao, Y., Peng, J., Kumar, P. and Meyerowitz, E. M., (2004) Floral homeotic genes are targets of gibberellins signaling in flower development. *PNAS* 101, 7827-7832.
- Hay, A., Kaur, H., Phillips, A. S., Hedden, P., Hake, S. and Tsiantis, M., (2002) The gibberellin pathway mediates knotted1-type homeobox function in plants with different body plans. *Curr Biol* 12, 1557–1565.
- Heath, M., (2000) Hypersensitive response related cell death. *Plant Molecular Biology* 44, 321-334.
- Helgi, O., Stephen, A., Rolfe., *The Physiology of Flowering Plants* Published (2005) Cambridge University, Press *Plant Physiology*, 191.
- Heller, J., (1996) *Physic Nut. Jatropha curcas* L. Promoting the conservation and use of underutilized and neglected crops. Institute of Plant Genetics and Crop Plant Research, Gatersleben/International Plant Genetic Resources Institute, Rome.

- Henning, K., (1997) Fuel production improves food production: the *Jatropha* project in Mali. In: Biofuels and Industrial Products from *Jatropha curcus*. Gubitz, G.M., Mittelbach, M., Trabi, M. (Eds.) 92-97.
- Heslop, H. J., (1956) Auxin and sexuality in *Cannabis sativa*. *Physiological. Planta* 4, 588-597.
- Heyno, E., Ve´ronique, M., Schopfer, P. and Krieger, A. L. (2011) Oxygen activation at the plasma membrane: relation between superoxide and hydroxyl radical production by isolated membranes. *Planta* 234, 35-45.
- Hield, H. Z., Burns, R. M. and Coggens, C. W., (1964) Pre-harvest use of 2, 4-D on citurs. *University Circular* 528, 3-10.
- Hirano, K., Ueguchi-Tanaka, M. and Matsuoka, M., (2008) GID1-mediated gibberellin signaling in plants. *Trends in Plant Science* 13, 192-199.
- Holbrook, A., Edge, W. and Bailey, F. (1961) Spectrophotometric method for determination of gibberellic acid. *Adv Chem Ser.* 28, 159-167.
- Hughes, W. G., Bennett, M. D., Bodden, J. J. and Galanopoulou, S., (1974) Effects of time of application of Ethrel on male sterility and ear emergence in wheat *Triticum aestivum*. *Annals of Applied Biology* 76, 243-252.
- Huibo, R., Zhihui, G., Lin, C., Kaifa, W., Jing, L., Yijuan, F., William, J. D., Wensuo, J., and Jianhua, Z., (2007) Dynamic analysis of ABA accumulation in relation to the rate of ABA catabolism in maize tissues under water deficit. *Jour of Exp Bot* 8(2), 211-219.
- Imahara, H., Minami, E. and Saka, S. (2006) Thermodynamic study on cloud point of biodiesel with its fatty acid composition. *Fuel* 85, 1666-1670.

-
- Irish, E. E. and Nelson, T., (1989) Sex Determination in Monoecious and Dioecious Plants, *Plant Cell* 1, 737-744.
- Ito, J. and Hiroo, F., (2002) ZEN1 Is a Key Enzyme in the Degradation of Nuclear DNA during Programmed Cell Death of Tracheary Elements. *Plant Cell* 14, 3201-3211.
- Jack, T., (2004) Molecular and Genetic Mechanisms of Floral Control. *Plant Cell* 16, S1-S17.
- Jackson, M. B., Fenning, T. M., Drew, M. C. and Saker, L. R., (1985) Stimulating of ethylene production and gas space (aerenchyma) formation in adventitious roots of *Zea mays L* by small partial pressures of oxygen. *Planta* 165, 486-492.
- Jako, C., Kumar, A., Wei, Y., Zou, J., Barton, D. L., Giblin, E. M., Covello, P. S. and Taylor, D. C., (2001) Seed-specific over-expression of an Arabidopsis cDNA encoding a diacylglycerol acyltransferase enhances seed oil content and seed weight. *Plant Physiology* 126, 861-874.
- Jasinski, S., Piazza, P., Craft, J., Hay, A., Woolley, L., Rieu, I., Phillips, A., Hedden, P. and Tsiantis, M., (2005) KNOX action in Arabidopsis is mediated by coordinate regulation of cytokinin and gibberellin activities. *Curr Biol* 15, 1560-1565.
- Jiang, M. and Zhang, J., (2003) Cross talk between calcium and reactive oxygen species originated from NADPH oxidase in abscisic acid induced antioxidant defence in leaves of maize seedlings. *Plant Cell Environ* 26, 929-93.
- Jindal, S.K. and Satyavir, P. A., (1999) Variability and associations for seed yield, oil content and tree morphological traits in neem (*Azadirachta indica*). *Jour of Tropi Forest Sc* 11, 320-322.
- Jinn, T. L., Stone, J. M. and Walker, J. C., (2000) HAESA, an Arabidopsis leucine-rich repeat receptor kinase, controls floral organ abscission. *Genes Dev* 14, 108-117.

-
- Jong, A., (2002) Programmed Cell Death in Development and Defence. *Plant Physiology* 125, 94-97.
- Jones, R.L., (1968) Aqueous extraction of Gibberellins from Pea. *Planta* 81, 97-105.
- Jones, N. and Miller, J. H., (1992) *Jatropha curcas*: a multipurpose species for problematic sites. Washington DC: The World Bank.
- Jones, A. M., and Dangl, J. L., (1996). Logjam at the styx: Programmed cell death in plants. *Trends Plant Sci.* 1, 114–118.
- Jongschaap, R. E. E., Corre, W. J., Bindraban, P. S. and Brandenburg, W. A., (2007) Claims and facts on *Jatropha curcas* L. Wageningen, The Netherlands: Plant Research International.
- Joubert, P. H., Brown, M. M., Hay, I. T. and Sebata, D. B., (1984) Acute poisoning of with *Jatropha curcas* (purging nut tree) in children S. Afric , *Med. J.* 65, 729-730.
- Kardailsky, I., Shukla, V. K., Ahn, J. H., Dagenais, N., Christensen, S. K., Nguyen, J. T., Chory, J., Harrison, M. J., and Weigel, D. (1999) Activation tagging of the floral inducer FT, *Science* 286, 1962-1965.
- Kates, M., (1986) *Techniques in Lipodology-Isolation, Analysis and Identification of Lipids*, 2nd ed, Elsevier, New York.
- Kato M., Hayakawa Y., Hyodo H., Ikoma Y. and Yano M., (2000). Wound-induced ethylene and expression and formation of 1-aminocyclopropane-1-carboxylate synthase, ACC oxidase, phenylalanine ammonia lyase and peroxidase in wounded mesocarp tissue of *Cucurbita maxima*. *Plant Cell Physiol.* 41, 440–447.

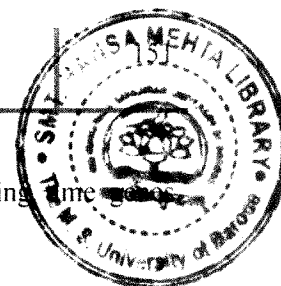
- Kaushik, N., (2001) Effect of seed size on the performance of top feed tree species at seedling stage. *Forage Research* 27, 43-45.
- Kaushik, N., Kaushik, J. C. and Kumar, S., (2003) Response of *Jatropha curcas* to seed size and growing medium. *Journal of Non-Timber Forest Products* 10, 40-42.
- Kaura, S. K., Gupta, S. K. and Chowdhury, J. B., (1998) Morphology and oil content variation in seeds of *Azadirachta indica* A. Juss (neem) from northern and western provenances of India. *Plant Foods and Human Nutrition* 52, 293-298.
- King, A. J., He, W., Cuevas, J. A., Freudenberger, M., Ramiarmanana, D. and Graham, I. A., (2009) Potential of *Jatropha curcas* as a source of renewable oil and animal feed. *J Exp Botany* 25, 1-9.
- Kim, W. T. and Yang, S. F., (1992) Turnover of 1-aminocyclopropane-1-carboxylic Acid synthase protein in wounded tomato fruit tissue, *Plant Physiol* 100, 1126-1131.
- Knothe, G., (2008) 'Designer' biodiesel: optimizing fatty ester composition to improve fuel properties. *Energy Fuels* 22, 1358-1364.
- Kobayashi, Y., Kaya, H., Goto, K., Iwabuchi, M., and Araki, T., (1999) A pair of related genes with antagonistic roles in mediating flowering signals, *Science* 286, 1960-1962.
- Koornneef, M., Hanhart, C. J., and Van, D. V., (1991) A genetic and physiological analysis of late flowering mutants in *Arabidopsis thaliana*. *Mol Gen* 229, 57-66.
- Kosta A., Laporte C., Lam D., Tresse E., Luciani M.F. and Golstein P. (2001) How to Assess and Study Cell Death in *Dictyostelium discoideum*. *Methods in Cell Biology*. 346, 535-550.

- Krishnakumar, J., Venkatachalapathy, K. V. S. and Elancheliyan, S., (2008). Technical aspects of biodiesel production from vegetable oils. *Thermal Science* 12, 159-169.
- Kulikowska-Gulewska, H. and Kopcewicz, J., (1999) Ethylene in the control of photoperiodic flower induction in *Pharbitis nil chois*. *Acta Soc Bot Pol* 68, 33–37.
- Kuo, A., Cappelluti, S., Cervantes-Cervantes, M., Rodriguez, M., and Bush, D.S., (1996). Okadaic acid, a protein phosphatase inhibitor, blocks calcium changes, gene expression, and cell death induced by gibberellin in wheat aleurone cells. *Plant Cell* 8, 259–269.
- Kumar, S., Parimallam, R., Arjunan, M. C. and Vijayachandran, S. N., (2003) Variation in *Jatropha curcas* seed characteristics and germination. In: Hegde NG, Daniel JN, Dhar S, editors. Proceeding of the national workshop on *Jatropha* and other perennial oilseed species. Pune, India, 63-66.
- Kumar, R., Nautiyal, S., Kumar, P. and Bahuguna, A., (2004) Seed source variation in Khair (*Acacia catechu Willd.*). *Indian Forester* 130, 530-536.
- Kundu, S. K. and Tigerstedt, P. M. A., (1997) Geographical variation of seed and seedling traits of neem (*Azadirachta indica* A. Juss.) among ten populations studied in growth chamber. *Silvae Genetica* 46, 129–137.
- Kuriyama, H., (1999) Loss of tonoplast integrity programmed in tracheary element differentiation. *Plant Physiol* 121, 763-774.
- Lardizabal K, Effertz R, Levering C, Mai J, Pedroso MC, Jury T, Aasen E, Gruys K. and Bennett K., (2008) Expression of *Umbelopsis ramanniana* DGAT2A in seed increases oil in soybean. *Plant Physiology* 148, 89–96.
- Larson, T. R. and Graham, I.A., (2001) A novel technique for the sensitive quantification of acyl CoA esters from plant tissues. *The Plant Journal* 25, 115–125.

-
- Lam, E., (2004) Controlled cell death, plant survival and development. *Nat Rev Mol Cell Biol.* 5, 305-315.
- Lazarte, J. F and Garrison A., (1980) Sex modification in *Asparagus officinalis* L. *Journal of the American Society for Horticultural Science* 105, 692-694.
- Les, D. H., (1988) Breeding systems, population structure and evolution in hydrophilous angiosperms. *Ann Mo Bot Gard* 75, 819–835.
- Lewis, M. W., Leslie, M. E. and Liljegren, S. J., (2006) Plant separation: 50 ways to leave your mother. *Curr Opin Plant Biol* 9, 59–65.
- Linnaeus, C., (1753) *Species plantarum*. *Jatropha Impensis Laurentii Salvii*, Stockholm. 1006-1007.
- Liu, H. F., Kirchoff, B. K., Wu, G. J. and Liao, J. P., (2007) Microsporogenesis and male gametogenesis in *Jatropha curcas* L. (Euphorbiaceae). *J Torrey Botan Soc* 134(3), 335–43.
- Lizada, M. C. C. and Yang, S. F., (1979) A simple and sensitive assay for 1-aminocyclopropane-1-carboxylic acid. *Anal. Biochem.* 100, 140–145.
- Llanes, K. (2002) Plant DNA Extraction Protocol. *Plant Mol Bio Reporter* (2), 299a-299e.
- Lowry, O. H., N. J., Rosebrough, A. L. F. and R. J. Randall., (1951) Protein measurement with the Folin phenol reagent. *J. Biol. Chem.* 193, 265-275.
- Makkar, H. P. S., Aderibigbe, A. O. and Becker, K., (1998a). Comparative evaluation of non-toxic and toxic varieties of *Jatropha curcas* for chemical composition, digestibility, protein degradability and toxic factors. *Food Chemistry* 62, 207–215.

-
- Makkar, H. P. S., Becker, K. and Schmook, B., (1998b) Edible provenances of *Jatropha curcas* from Quintana Roo state of Mexico and effect of roasting on antinutrient and toxic factors in seeds. *Plant Foods for Human Nutrition* 52, 31–36.
- Makkar, H. P. S., Becker, K., Sporer, F. and Wink, M., (1997). Studies on nutritive potential and toxic constituents of different provenances of *Jatropha curcas*. *Jour of Agri and Food Chem* 45, 3152–3157.
- Malgorzata, J., (2002) Structure, catalytic activity and evolutionary relationships of 1-aminocyclopropane-1-carboxylate synthase, the key enzyme of ethylene synthesis in higher plants. *Acta Biochim Pol* 49, 757-74.
- Marklund, S. and Marklund, G., (1974) Involvement of the Superoxide anion redical in the autoxidation of pyrogallol and convenient assay for Superoxide Dismutase. *Eur J Biochem* 47, 469-474.
- Masya, K., (2000) Wound induced ethylene synthesis and expression and formation of 1-aminocyclopropane- 1- carboxylate (ACC) synthase, ACC oxidase, phenylalanine ammonia lyase and peroxidase in wounded Mesocarp tissue of *Cucurbita maxima*. *Plant Cell Physiol* 41, 440-447.
- Mauseth, J. D., (1991). *Botany: An Introduction to Plant Biology*. Philadelphia: Saunders. 348-415.
- Miller, J., (1980) Taxonomic revisions of some upper Cambrian and lower Ordovician conodonts with comments on their evolution. *Inf. Circ* 19, 69-78 .
- Mohan, R. H. Y. and Jaiswal, V. S., (1972) Induction of male flowers of female plants of *Cannabis sativa* by Gibberellin and its inhibition by Abscissic acid. *Planta* 105, 263-266.

-
- Moller, S. G. and Chua, N. H., (1999) Interactions and Intersections of plant signaling pathways. *J Mol Biol* 293, 219-234.
- Morgan, P. W. and Drew, M. C., (2004) Plant cell death and cell differentiation. In: Noode'n LD (ed) *Plant cell death processes*. Elsevier, Amsterdam, 19-36.
- Muller, R., Owen, C. A., Xue, Z. T., Welander, M. and Stummann, B. M., (2002) Characterization of two CTR-like protein kinases in *Rosa hybrida* and their expression during flower senescence and in response to ethylene. *Jour of Expl Bot* 53, 1223-1225.
- Muys, B., (2008). *Jatropha* bio-diesel production and use. *Biomass and Bioenergy* 35, 1063-1084.
- Mutasa G. E. and Peter, H., (2009) Gibberellin as a factor in floral regulatory networks. *Jour of Exp Bot* 60(7), 1979-1989.
- Nakagawa, N., Mori, H., Yamazaki, K., Imaseki, H. (1991) Cloning of a complementary DNA for auxin-induced 1-aminocyclopropane- 1-carboxylate synthase and differential expression of the gene by auxin and wounding. *Plant Cell Physiol* 32, 1153-1163.
- Nemhauser, J. L., Hong, F. X. and Chory, J., (2006) Different plant hormones regulate similar processes through largely nonoverlapping transcriptional responses. *Cell* 126, 467-475.
- Nester, J. E. and Zeevaart, J. A. D., (1988) Flower development in normal tomato and a gibberellin-deficient (ga-2) mutant. *American Journal of Botany* 75, 45-55.
- Nichols, R., (1977) Sites of ethylene production in the pollinated and unpollinated senescing carnation (*Dianthus caryophyllus*) inflorescence. *Planta* 135, 155-159.



- Nilsson, O., Lee, I., Blazquez, M. A. and Weigel, D., (1998) Flowering time genes modulate the response to *LEAFY* activity. *Genetics* 150, 403-410.
- Obara, K., Kuriyama, H. and Fukuda, H., (2001). Direct evidence of active and rapid nuclear degradation triggered by vacuole rupture during programmed cell death in *Zinnia*. *Plant Physiol* 125, 615-626.
- O'Neill, D. P. and Ross, J. J., (2002) Auxin regulation of the gibberellin pathway in *Arabidopsis*. *Plant Physiol* 130, 1974-1982.
- Ockendon, D. J. and Clenagham, M. C. R., (1993) Effect of silver nitrate and 2,4-D on anther culture of Brussels sprouts. *Plant Cell Tiss Org Cult.* 32, 41-46.
- Ohlrogge, J. B. and Jaworski, J. G., (1997) Regulation of Fatty acid synthesis. *Annu Rev Plant Physio Plant Mol Bio* 48, 109-136.
- Openshaw, K., (2000). A review of *Jatropha curcas*: an oil plant of unfulfilled promise. *Biomass and Bioenergy.* 19, 1-15.
- Orzaez, D., Blay, R. and Granell, A., (1999) Programme of senescence in petals and carpels of *Pisum sativum* L. flowers and its control by ethylene. *Planta* 208, 220-226.
- Ozga, J. A. and Reinecke, D. M., (2003) Hormonal interactions in fruit development. *Jour of Plant Growth Reg* 22, 73-81.
- Palavan, U. N., Elif, D. B. and Mehmet, A. T., (2005) Programmed cell death in plants. *Jour of Cell and Mol Bio* 4, 9-23.
- Papadopoulou, E. and Grumet, R., (2005) Brassinosteroid-induced femaleness in cucumber and relationship to ethylene production. *HortScience* 40, 1763-1767.

-
- Panavas, T. and Rubinstein, B., (1998) Oxidative events during programmed cell death of daylily (*Hemerocallis hybrid*) petals. *Plant Sci* 133, 125–138.
- Pan, B. Z. and Xu, Z. F., (2010) Benzyladenine Treatment Significantly Increases the Seed Yield of the Biofuel Plant *Jatropha curcas*. *J Plant Growth Regul* DOI 10.1007/s00344-010-9179-3.
- Patterson, B. D., Macrae, E. A. and Ferguson, I. B., (1984) Estimation of hydrogen peroxide in plant extracts using titanium (IV). *Anal Biochem* 139, 487–492.
- Patterson, S. E., (2001) Cutting loose. Abscission and dehiscence in Arabidopsis. *Plant Physiol* 126, 494–500.
- Patterson, S. E. and Bleker, A. B., (2004) Ethylene dependent and independent process associated with floral organ abscission in Arabidopsis. *Plant Physiology* 134, 194–203.
- Pelaz, S., Ditta, G. S., Baumann, E., Wisman, E., and Yanofsky, M. F. (2000) B and C floral organ identity functions require SEPALLATA MADS-box genes, *Nature* 405, 200–203.
- Pelaz, S., Gustafson-Brown, C., Kohalmi, S. E., Crosby, W. L., and Yanofsky, M. F. (2001) APETALA1 and SEPALLATA3 interact to promote flower development, *Plant J.* 26, 385–394.
- Pharis, R. P. and King, R. W., (1985) Gibberellins and reproductive development in seed plants. *Annual Review on Plant Physiology* 36, 517–568.
- Ponnammal, N. R., Arjunan, M. C. and Antony, K. A., (1993) Seedling growth and biomass production in *Hardwickia binnata* Roxb as effected by seed size. *Indian Forester* 119, 59–62.

- Pnueli, L., Hareven, D., Broday, L., Hurwitz, C., and Lifschitz, E. (1994) The TM5 MADS Box Gene Mediates Organ Differentiation in the Three Inner Whorls of Tomato Flowers, *Plant Cell* 6, 175-186.
- Prakash, A. R., Patolia J. S., Chikara, J. and Boricha, G. N., (2007) Floral biology and flowering behaviour of *Jatropha curcas*. In: Expert seminar on *Jatropha curcas* L. agronomy and genetics, March 26-28. Wageningen, The Netherlands: Published by FACT Foundation.
- Pramanik, K., (2003) Properties and use of *Jatropha curcas* and diesel fuel blends in compression ignition engine. *Renewable Energy* 28, 239-248.
- Qing, Y., Ping, P. D., Biao, D. Z., Liang, W. Z. and Xiang, S. Q., (2007) Study on pollination biology of *Jatropha curcas* (Euphorbiaceae). *J South China Agricult Univ* 28(3), 62-66.
- Radmer, R. and Kok, B., (1977). "Photosynthesis: Limited Yields, Unlimited Dreams". *Bioscience* 29: 599-605.
- Raju, A. J. S. and Ezradanam, V. (2002). Pollination ecology and fruiting behavior in a monoecious species, *Jatropha curcas* L. (Euphorbiaceae). *Current Science* 83, 1395-1398.
- Rao, G., Korwar, G., Shanker, A. and Ramakrishna, Y., (2008) Genetic associations, variability and diversity in seed characters, growth, reproductive phenology and yield in *Jatropha curcas* (L.) accessions. *Trees: Structure and Function* 22, 697-709.
- Raven, P. H., Evert, R. F., and Eichhorn, S. E. (1992). *Biology of Plants*. New York: Worth. 545-572.
- Roberts, J. A., Elliott, K. A. and Gonzalez-Carranza, Z. H., (2002) Abscission, dehiscence, and other cell separation processes. *Annu Rev Plant Biol.* 53, 131-158.

-
- Rogers, H. J., (2006) Programmed cell death in floral organs: How and why do flowers die? *Ann Bot* 97, 309–315.
- Rogers, H. J., (2005) Cell death and organ development in plants. *Trends Plant Sci.* 71, 225-261.
- Ross, J. J., Neill, D. P., Smith, J. J., Kerckhoffs, L. H. J., and Elliott, R. C. (2000) Evidence that auxin promotes gibberellin A1 biosynthesis in pea. *Plant J* 21, 547–552.
- Rostami, F. and Ehsanpour, A. A., (2010) The effect of silver thiosulfate (STS) on chlorophyll content and the antioxidant enzymes activity of potato (*Solanum tuberosum L.*). *Jour of Cell and Mol Res* 2 (1), 29-34.
- Rowell, P. L. and Miller, D. G., (1971) Induction of male sterility in wheat with 2-chloroethylphosphonic acid (Ethrel). *Crop Science* 11, 629–631.
- Rubinstein, B., (2000) Regulation of cell death in flower petals. *Plant Molecular Biology* 44, 303-318.
- Rudich, J., Halevy, A. H. and Kedar, N., (1972) Ethylene evolution from cucumber plants as related to sex expression, *Plant Physiol* 49, 998-999.
- Rugini, E. and Panelli, G., (1993) Preliminary results on increasing fruit set in olives (*Olea europaea L.*) by chemical and mechanical treatments. *Acta Horticulturae*, 329, 209-210.
- Ryerson, D. E. and Heath, M. C., (1996) Cleavage of nuclear DNA into oligonucleosomal fragments during cell death induced by fungal infection or by abiotic treatments. *Plant Cell* 8, 393-402.

- Saibo, N. J. M., Vriezen, W. H., Beemster, G. T. S and Van der Straeten, D., (2003) Growth and stomata development of *Arabidopsis* hypocotyls are controlled by gibberellins and modulated by ethylene and auxins. *Plant J* 33, 989–1000.
- Saito, T. and Takahashi, H., (1987) Role of leaves in ethylene-induced femaleness of cucumber plants. *J Jpn Soc Hort Sci* 55, 445-454.
- Sakamoto, T., Kamiya, N., Ueguchi-Tanaka, M., Iwahori S. and Matsuoka, M., (2001) KNOX homeodomain protein directly suppresses the expression of a gibberellin biosynthetic gene in the tobacco shoot apical meristem. *Genes Dev* 15, 581–590.
- Sakamoto, T. and Matsuoka, M., (2004) Generating high-yielding varieties by genetic manipulation of plant architecture, *Curr. Opin. Biotechnol.* 15, 144-147.
- Salisbury, F. B. and Ross, C. W., (1992). *Plant Physiology*. Belmont, CA: Wadsworth. 531-548.
- Salman-Minkov, A., Levi, A., Wolf, S., and Trebitsh, T. (2008) ACC synthase genes are polymorphic in watermelon (*Citrullus* spp.) and differentially expressed in flowers and in response to auxin and gibberellin, *Plant Cell Physiol* 49, 740-750.
- Santos-Mendoza, M., Dubreucq, B., Baud, S., Parcy, F., Caboche, M. and Lepiniec, L., (2008) Deciphering gene regulatory networks that control seed development and maturation in *Arabidopsis*. *The Plant Journal* 54, 608–620.
- Saravoski, R. A. and Stannard, M. C., (1974), Controlling preharvest drop of citrus. *New South Gazette*, 9, 3-5.
- Sarin, R., Sharma, M., Sinharay, S. and Malhotra, R. K., (2007) *Jatropha* palm biodiesel blends: an optimum mix for Asia. *Fuel* 86, 1365-1371.

- Sauter, M., Mekhedov, S. L. and Kende, H., (1995) Gibberellin promotes histone H1 kinase-activity and the expression of CDC2 and cyclin genes during the induction of rapid growth in deep-water rice internodes. *Plant J* 7: 623–632.
- Sawan, Z. M., Hafez, S. A. and Basyony, A. E., (2001) Effect of nitrogen fertilization and foliar application of plant growth retardants and zinc on cottonseed, protein and oil yields and oil properties of cotton. *Journal of Agronomy and Crop Science* 186, 183-191.
- Sawhney, S. K. and Singh, R., (2002) *Introduction Practical Biochemistry*, 2nd ed, India.
- Sayoko, S., Nobuharu, F., Yutaka, M., Seiji, Y., Seiji, M., Hidemasa, M., Yukio, F. and Hideyuki, T., (2007) Correlation between development of female flower buds and expression of the CS-ACS2 gene in cucumber plants. *Jour of Exp Bot* 58(11), 2897-2907.
- Scandalios, J. G., (1993) Oxygen stress and superoxide dismutases. *Plant Physiol.* 101, 7-12.
- Schopfer, P., (2001) Hydroxyl radical-induced cell-wall loosening in vitro and in vivo: Implications for the control of elongation growth. *Plant J* 28, 679-688.
- Serrani, J. C., Sanjuan, R., Ruiz-Rivero, O., Fos, M. and Garcia, M. J. L., (2007) Gibberellin regulation of fruit set and growth in tomato. *Plant Physiology* 145, 246-257.
- Senthil, K. M., Ramesh, A., Nagalingam, B. (2003) An experimental comparison of methods to use methanol and Jatropha oil in a compression ignition engine. *Biomass and Bioenergy* 25, 309-318.
- Sexton, R., (1997) The role of ethylene and auxin in abscission. *Acta Hort* 463, 435-444.

- Sexton, R., Porter, A. E. and Littlejohns, S., (1995) Effects of diazocyclopentadiene (DACP) and silver thiosulphate (STS) on ethylene-regulated abscission of sweet pea flowers (*Lathyrus odoratus* L.). *Ann of Bot* 75, 337-342.
- Shinjiro, Y., (2008) Gibberellin Metabolism and its Regulation. *Ann Rev of Plant Bio* 59, 225-251.
- Silverstone, A. L., Tseng, T. S., Swain, S. M., Dill, A., Jeong, S. Y., Olszewski, N. E. and Sun, T. P., (2007) Functional analysis of SPINDLY in gibberellin signaling in *Arabidopsis*. *Plant Physiol* 143, 987-1000.
- Sinha, B. K. and Bashu, P. S., (1981). Indole-3-Acetic Acid and its Metabolism in Root Nodules of *Pongamia pinnata* (L.). *PIERRE Biochem Physiol Pflanzen* 176, 218-227.
- Sinha, S. and Misra, N. C., (1997) Diesel fuel alternative from vegetable oils. *Chem Engng World* 32(10), 77-80.
- Smart C, 1994, Tansley review no.64- Gene expression during leaf senescence. *New Physiologist* 126, 419-448.
- Solomon, M., Belenghi, B., Dellwonne, M., Menachem, E. and Levine, M., (1999) The involvement of cysteine proteases and protease inhibitor gene in the regulation of programmed cell death in plants. *The Plant Cell* 11, 431-443.
- Srivastava, L. M., (2002) Plant growth and development: hormones and environment. Amsterdam: Academic Press 140-143.
- Srivastava, A. and Prasad, R., (2000) Triglycerides-based diesel fuels. *Renew Sustain Energy Rev* 4, 111-133.
- Stead, A. D., (1992) Pollination-induced flower senescence: a review. *Plant Growth*

Regul 11, 13-20.

Stead, A. D. and Doorn, V., (1994) Strategies of flower senescence—A review. In: Scott, R. J. and Stead, A. D., eds. *Molecular and Cellular Aspects of Plant Reproduction*. Cambridge, UK: Cambridge University Press, 215-238.

Stebbins, G. L., (1970) Adaptive radiation in angiosperms, pollination mechanisms. *Ann Rev Ecol Syst* 1, 307-326.

Steffens, B. and Sauter, M., (2005) Epidermal cell death in rice is regulated by ethylene, gibberellin, and abscisic acid. *Plant Physiol* 139, 713-721.

Stehlik, I., Friedman, J., and Barrett, S. C., (2008) Environmental influence on primary sex ratio in a dioecious plant. *Proc. Natl. Acad. Sci.* 105, 10847-10852.

Strother, S., (1988) The role of free radicals in leaf senescence. *Gerontology* 34, 151-156.

Takahashi, H. and Jaffe, M. J., (1984) Further studies of auxin and ACC induced feminization in the cucumber plant using ethylene inhibitors, *Phyton. (B Aires)* 44, 81-86.

Tanimoto, T., (2007) Modification of Sex Expression in *Sagittaria latifolia* by the Application of Gibberellic Acid and Paclobutrazol. *J Japan Soc Hort Sci* 76, 47-53.

Taylor, J. E. and Whitelaw, C. A., (2001) Signals in abscission. *New Phytol* 151, 323-339.

Teale, W. D., Paponov, I. A. and Palme, K., (2006) Auxin in action: signalling, transport and the control of plant growth and development. *Nat Rev Mol Cell Biol* 7, 847-859.

Tewari, D. N., (2007) *Jatropha and biodiesel*. 1st ed. New Delhi: Ocean books Ltd.

- Theresa, F. L., Sabine, L. H. and Sarah, R. G., (2002) Silver enhances stamen development in female white campion (*Silene latifolia* [Caryophyllaceae]). *Am Jour of Bot* 89, 1014-1020.
- Thomas, T. D., (2008) In vitro modification of sex expression in mulberry (*Morus alba*) by ethrel and silver nitrate. *Plant Cell Tissue and Organ Cult.* 77, 277-281.
- Thomas, H., Ougham, H. J., Wagstaff, C. and Stead, A. D., (2003) Defining senescence and death. *J Exp Bot* 54(385), 1127-1132.
- Thomas, T. D., (2008) The effect of in vivo and in vitro applications of ethrel and GA3 on sex expression in bitter melon (*Momordica charantia* L.). *Euphytica*, Doi:10.1007/s10681-008-9658-9.
- Trebitsh, T., Riov, J. and Rudich, J., (1987) Auxin, biosynthesis of ethylene and sex expression in cucumber (*Cucumis sativus*). *Plant Growth Regul* 5, 105-113.
- Van der Kop, D. A. M., Ruys, G., Dees, D., van der Schoot, C., de Boer, A. D. and van Doorn, W. G. (2003) Expression of defender against apoptotic death (DAD-1) in *Iris* and *Dianthus* petals. *Physiol Plant* 117, 256-263.
- Van Doorn, W. G., Balk, P. A., van Houwelingen, A. M., Hoeberichts, F. A., Hall, R. D., Vorst, O., van der Schoot, C. and van Wordragen, M. F., (2003) Gene expression during anthesis and senescence in *Iris* flowers. *Plant Mol Biol* 53, 845-863.
- Veen, H. and Van De Geijn, S. C., (1978) Mobility and ionic form of silver as related to longevity of cut carnations. *Planta* 140, 93-96.
- Vriezen, W. H., Achard, P., Harberd, N. P., and Van Der, S. D., (2004) Ethylene mediated enhancement of apical hook formation in etiolated *Arabidopsis thaliana* seedlings is gibberellin dependent. *Plant J* 37, 505-516.

- Wagstaff, C., Leverentz, M. K., Griffiths, G., Thomas, B., Chanasut, U., Stead, A. D. and Rogers, H. J., (2002) Cysteine protease gene expression and proteolytic activity during senescence of *Alstroemeria* petals. *J Exp Bot* 53, 233-240.
- Wagstaff, C., Chanasut, U., Harren, F. J.M., Laarhoven, L. J., Thomas, B. and Rogers, H. J., (2005) Ethylene and flower longevity in *Alstroemeria*: relationship between tepal senescence, abscission and ethylene biosynthesis. *Journal of Experimental Botany* 56, 1007-1016.
- Wang, H., Li, J., Bostock, R. M. and Gilchrist, D. G., (1996) Apoptosis: a functional paradigm for programmed plant cell death induced by host selective phylotoxin and invoked during development. *The Plant Cell* 8, 375-391.
- Wang, D., Li, F., Duan, Q., Han, T., Xu, Z. and Bai, S. (2010). Ethylene perception is involved in female cucumber flower development. *The Plant Jour.* 61, 862-872.
- Watt, J. M. and Breyer-Brandwijk, M. G., (1962) *The Mechanical and Poisonous Plants of Southern and Eastern Africa*, E&S Living-stone, Edinburgh.
- Weiss, D. and Ori, N., (2007) Mechanisms of Cross Talk between Gibberellin and Other Hormones. *Plant Physiology*, 144, 1240-1246.
- Wiehr, E. Beiträge zur Kenntnis der Anatomie der wichtigsten Euphorbiaceensamen unter besonderer Berücksichtigung ihrer Erkennungsmerkmale in Futtermitteln. (1930) Ph.D. Dissertation, Mathematical-Natural Scientific Faculty, University Hamburg.
- Wijayanti, L., Fujioka, S., Kobayashi, M. and Sakurai, A., (1997) Involvement of abscisic acid and indole-3-acetic acid in the flowering of *Pharbitis nil*. *J Plant Growth Regul* 16, 115-119.

- Willekens, H., Chamnongpol, S., Davey, M., Schrauder, M., Langebartels, C., Van Montagu, M., Inzé, D. and Van Camp, W., (1997) Catalase is a sink for H₂O₂ and is indispensable for stress defence in C3 plants. *EMBO J* 16, 4806-4816.
- Wohlgemuth, H., Mittelstrass, K., Kschieschan, S., Bender, J., Weigel, H. J., Overmyer, K., Kangasjarvi, J. and Sandermann, H. L., (2002) Activation of an oxidative burst is a general feature of sensitive plants exposed to the air pollutant ozone. *Plant Cell Environ* 25, 717-726.
- Wolbang, C. M. and Ross, J. J., (2001) Auxin promotes gibberellin biosynthesis in decapitated tobacco plants. *Planta* 214, 153-157.
- Wyatt, R., (1983) Pollinator plant interactions and the evolution of breeding systems. In: Real L, editor. *Pollination biology*. Florida: Academic Press, 51-95.
- Yamasaki, S., Fujii, N. and Takahashi, H. (2000) The Ethylene regulated expression of CS-ETR1 and CS-ETR2 genes in Cucumber plants and their possible involvement with sex expression in flowers. *Plant Cell Physiol.* 41(5), 608-616.
- Yamasaki, S., Fujii, N. and Takahashi, H. (2003a) Characterization of ethylene effects on sex determination in cucumber plants. *Sex. Plant. Rep.* 16, 103-111.
- Yamasaki, S., Fujii, N. and Takahashi, H. (2003b) Photoperiodic regulation of CS-ACS2, CS-ACS4 and CS-ERS gene expression contributes to the femaleness of cucumber flowers through diurnal ethylene production under short-day conditions. *Plant Cell Environ.* 26, 537-546.
- Yamasaki, K., Kigawa, T., Inoue, M., Yamasaki, T., Yabuki, T., Aoki, M., Seki, E., Matsuda, T., Tomo, Y., Terada, T., Shirouzu, M., Tanaka, A., Seki, M., Shinozaki, K., and Yokoyama, S. (2005) Solution structure of the major DNA-binding domain of *Arabidopsis thaliana* ethylene-insensitive3-like3, *J. Mol. Biol.* 348, 253-264.

- Yamada, T., Ichimura, K. and van Doorn, W. G., (2006a) DNA degradation and nuclear degeneration during programmed cell death in petals of *Antirrhinum*, *Argyranthemum*, and *Petunia*. *J Exp Bot* 57, 3543- 3552.
- Yamada, T., Takatsu, Y., Kasumi, M., Ichimura, K. and van Doorn, W. G., (2006b) Nuclear fragmentation and DNA degradation during programmed cell death in petals of morning glory (*Ipomoea nil*). *Planta* 224, 279–1290.
- Yamada, T., Wouter, G., and Doorn, W. G. V., (2007) Relationship between petal abscission and programmed cell death in *Prunus yedoensis* and *Delphinium belladonna*. *Planta* 226, 1195–1205.
- Yanai, O., Shani, E., Dolezal, K., Tarkowski, P., Sablowski, R., Sandberg, G., Samach, A. and Ori, N., (2005) Arabidopsis KNOXI proteins activate cytokinin biosynthesis. *Curr Biol* 15, 1566–1571.
- Yunde, Z., (2010) Auxin biosynthesis and its role in plant development. *Annu Rev Plant Biol* 61, 49-64.
- Yi, H. C., Joo, S., Nam, K. H., Lee, J. S., Kang, B. G. and Kim, W. T., (1999). Auxin and brassinosteroid differentially regulate the expression of three members of the 1-aminocyclopropane-1-carboxylate synthase gene family in mung bean (*Vigna radiata* L.). *Plant Molecular Biology* 41, 443-454.
- Yin, T. J. and Quinn, J. A., (1995) Tests of a mechanistic model of one hormone regulating both sexes in *Cucumis sativus* (Cucurbitaceae). *Amer. J. Bot.* 82, 1537–1546.
- Zhang, W. and Wen, C., (2010) Preparation of ethylene gas and comparison of ethylene responses induced by ethylene, ACC, and ethephon. *Plant Physio Biochem* 48, 45-53.

-
- Zhou, B., Wang, J., Guo, Z., Tan, H. and Zhu, X., (2006) A simple colorimetric method for determination of hydrogen peroxide in plant tissues. *Plant Growth Regulation*. 61, 121-125.
- Zegzouti, H., Jones, B., Frasse, P., Marty, C., Maitre, B., Latche, A., Pech, J. C., Bouzayen, M., (1999) Ethylene-regulated gene expression in tomato fruit: characterization of novel ethylene-response and ripening-related genes isolated by differential-display. *The Plant Journal* 18, 589-600.
- Zelitch, I., Havir, E. A., Mc Gonigle, B., Mc Hale, N. A. and Nelson, T., (1991) Leaf catalase mRNA and catalase-protein levels in a high-catalase tobacco mutant with O₂-resistant photosynthesis. *Plant Physiol* 97, 1592-1595.