

Spices Bibliography - 2004 (Part II)

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Spices - General

- Garg V K, Singh P K & Katiyar R S 2004 Yield, mineral composition and quality of coriander (*Coriandrum sativum*) and fennel (*Foeniculum vulgare*) grown in sodic soil. Indian Journal of Agricultural Sciences 74 (4) : 221-223.
- Palada M C, Davis A M, Crossman S M A, Robles C & Chichester E A 2004 Sustainable crop management practices for improving production of culinary herbs in the Virgin Islands. Acta Horticulturae No. 629 : 289-298.
- Rajalakshmi M, Sakthi A S, Gani A M F, Pradeeba L, Kumbagan R B & Saliha B B 2004 Rare homoeopathic herbs. Indian Journal of Arecanut, Spices and Medicinal Plants 6 (2) : 59-60.
- Selvan M T & Manojkumar K 2004 Spices production prospects in Meghalaya. Indian Journal of Arecanut, Spices and Medicinal Plants 6 (1) : 1-6.
- Umoetok S B A 2004 The control of damages caused by maize weevils (*Sitophilus oryzae* Motsc.) to stored maize grains using cardamon and black pepper. Journal of Food, Agriculture and Environment 2 (2) : 250-252.

Basil (*Ocimum basilicum* L.)

- Garibaldi A, Minuto G, Bertetti D & Gullino M L 2004 Seed transmission of *Peronospora* sp. of basil. Zeitschrift fur Pflanzenkrankheiten und Pflanzenschutz 111 (5) : 465-469.
- Guirado Moya M L, Aguilar M I, Blanco R, Kenig A, Gomez J & Tello J C 2004 *Fusarium* wilt on sweet basil: cause and sources in south eastern Spain. Phytoparasitica 32 (4) : 395-401
- Labra M, Miele M, Ledda B, Grassi F, Mazzei M & Sala F 2004 Morphological characterization, essential oil composition and DNA genotyping of *Ocimum basilicum* L. cultivars. Plant Science 167 (4) : 725-731.
- Lal R K, Khanuja S P S, Agnihotri A K, Shasany A K, Naqvi A A, Dwivedi S, Misra H O, Dhawan O P, Kalra A, Singh A, Bahl J R, Singh S, Patra D D, Agarwal S, Darokar M P, Gupta A K, Gupta M L & Chandra R 2004 An early, short duration, high essential oil, methyl chavicol and linalool yielding variety of Indian basil (*Ocimum basilicum*) 'CIM-Saumya'. Journal of Medicinal and Aromatic Plant Sciences 26 (1) : 77-78.

Black pepper (*Piper nigrum* L.)

- Dagade S B 2004 Anatomy of two *Piper* species with respect to *Phytophthora* foot rot disease. Journal of Maharashtra Agricultural Universities 29 (2) : 178-182.

- Gurdip S, Marimuthu P, Catalan C & de Lampasona M P 2004 Chemical, antioxidant and antifungal activities of volatile oil of black pepper and its acetone extract. *Journal of the Science of Food and Agriculture* 84 (14): 1878–1884.
- Sasikumar B, Haridas P, George J K, Saji K V & Parthasarathy V A 2004 Phenotypic stability for berry yield in black pepper (*Piper nigrum*). *Indian Journal of Agricultural Sciences* 74 (5) : 279–280.
- Siddiqui B S, Tahsin G, Sabira B & Farhana A 2004 Piptigrine, a new insecticidal amide from *Piper nigrum* Linn. *Natural Product Research* 18 (5) : 473–477.
- Scott I M, Jensen H, Nicol R, Lesage L, Bradbury R, Sanchez Vindas P, Poveda L, Arnason J T & Philogene B J R 2004 Efficacy of *Piper* (Piperaceae) extracts for control of common home and garden insect pests. *Journal of Economic Entomology* 97 (4): 1390–1403.

Celery (*Apium graveolens* L.)

- Baumann D T, Bastiaans L & Kropff M J 2004 Analysis and design of a leek-celery intercropping system using mechanistic and descriptive models. *Acta Horticulturae* No. 638 : 59–68.
- Bialobrzeski I & Markowski M 2004 Mass transfer in the celery slice: effects of temperature, moisture content, and density on water diffusivity. *Drying Technology* 22 (7) : 1777–1789.
- Dyduch J & Najda A 2004 The effect of soil mulching on yielding two cultivars of celery (*Apium graveolens* L. var. *dulce* Mill./Pers.). *Folia Universitatis Agriculturae Stetinensis Agricultura* 95 : 75–80.
- Gomez P A & Artes F 2004 Controlled atmospheres enhance postharvest green celery quality. *Post harvest Biology and Technology* 34 (2) : 203–209.
- Gomez P A & Artes F 2004 Keeping quality of green celery as affected by modified atmosphere packaging. *European Journal of Horticultural Science* 69 (5) : 215–219.
- Gupta R, Rath C C, Dash S K & Mishra R K 2004 *In vitro* antibacterial potential assessment of carrot (*Daucus carota*) and celery (*Apium graveolens*) seed essential oils against twenty one bacteria. *Journal of Essential Oil Bearing Plants* 7 (1) : 79–86.
- Kosugi T, Takahashi K & Suzuki N 2004 Reduction of fertilizer amount by use of release-controlled fertilizers to celery (*Apium graveolens* L.) grown in nursery bowl. *Japanese Journal of Soil Science and Plant Nutrition* 75 (3) : 373–376.
- Migahed H A, Ahmed A E & Abd El Ghany B F 2004 Effect of different bacterial strains as biofertilizer agents on growth, production and oil of *Apium graveolens* under calcareous soil. *Arab Universities Journal of Agricultural Sciences* 12 (2) : 511–525.
- Muminovic J, Melchinger A E & Lubberstedt T 2004 Prospects for celeriac (*Apium graveolens* var. *rapaceum*) improvement by using genetic resources of *Apium*, as determined by AFLP markers and morphological characterization. *Plant Genetic Resources: Characterization and Utilization* 2 (3) : 189–198.
- Najda A & Dyduch J 2004 Determination of quantitative composition of polyphenolic compounds occurring in leaf stalks of three celery cultivars (*Apium graveolens* L. var. *dulce* Mill./Pers.). *Folia Universitatis Agriculturae Stetinensis Agricultura* 95 : 259–264.
- Pan L Q, Kang T, Jia M M & Xin L Z 2004 Effects of O₃ water washing on the freshness keeping of celery. *Journal of Anhui Agricultural University* 31 (3) : 348–352.
- Yagar H 2004 Some biochemical properties of polyphenol oxidase from celery. *Preparative Biochemistry and Biotechnology* 34 (4) : 387–397.
- Yen S H, Wang T T & Tsao S J 2004 Germination characteristics of celery (*Apium graveolens* L. var. *secalinum*) in Taiwan. *Journal of the Chinese Society for Horticultural Science* 50 (3) : 283–294.

Chillies (*Capsicum* spp.)

- Adamczewska Sowinska K & Koota E 2004 The effect of weed control on pepper yielding. *Folia Universitatis Agriculturae Stetinensis, Agricultura* 95 : 13–16.
- Amita P, Ansari N A, Tewari J P & Srivastava G P 2004 Screening of chilli varieties against mosaic disease. *Journal of Living World* 11 (1) : 24–26.
- Amusa N A, Kehinde I A & Adegbite A A 2004 Pepper (*Capsicum frutescens*) fruit anthracnose in the humid forest region of south-western Nigeria. *Nutrition and Food Science* 34 (3–4) : 130–134.
- Antonious G F 2004 Residues and half-lives of pyrethrins on field-grown pepper and tomato. *Journal of Environmental Science and Health Part B, Pesticides, Food Contaminants, and Agricultural Wastes* 39 (4) : 491–503.
- Anu A, Babu K N & Peter K V 2004 Variations among somaclones and its seedling progeny in *Capsicum annuum*. *Plant Cell, Tissue and Organ Culture* 76 (3) : 261–267.
- Bagri R K, Choudhary S L & Rai P K 2004 Management of fruit rot of chilli with different plant products. *Indian Phytopathology* 57 (1) : 107–109.
- Baral J, Sy O & Bosland P W A 2004 Comparison between a detached leaf and a whole plant method for screening *Phytophthora* foliar blight resistance in chilli (*Capsicum annuum*). *Capsicum and Eggplant Newsletter* 23 : 125–128.
- Behera T K, Pal R K, Sen N & Singh M 2004 Effect of maturity at harvest on physicochemical attributes of sweet pepper (*Capsicum annuum* var. *grossum*) varieties. *Indian Journal of Agricultural Sciences* 74 (5) : 251–253.
- Benavides M A, Salazar Torres A M, Ramirez G F, Robledo T V, Ramirez R H & Maiti R 2004 Pepper seed treatment with salicylic and sulfosalicylic acid and response of seedlings to cold stress. *Terra* 22 (1) : 41–47.
- Bharathi R, Vivekananthan R, Harish S, Ramanathan A & Samiyappan R 2004 Rhizobacteria based bio-formulations for the management of fruit rot infection in chillies. *Crop Protection* 23 (9) : 835–843.
- Blum E, Mazourek M, O'Connell M, Curry J, Thorup T, Liu K, Jahn M & Paran I 2004 Molecular mapping of capsaicinoid biosynthesis genes and quantitative trait loci analysis for capsaicinoid content in *Capsicum*. *Theoretical and Applied Genetics* 108 (1) : 79–86.
- Borovsky Y, Oren S M, Ovadia R, Paran I & de Jong W 2004 The A locus that controls anthocyanin accumulation in pepper encodes a MYB transcription factor homologous to Anthocyanin 2 of Petunia. *Theoretical and Applied Genetics* 109 (1) : 23–29.
- Cabanero F J, Martinez V & Carvajal M 2004 Does calcium determine water uptake under saline conditions in pepper plants, or is it water flux which determines calcium uptake? *Plant Science* 166 (2) : 443–450.
- Canto Martin J C, Medina Peralta S & Morales Avelino D 2004 Effect of *Azospirillum* sp. inoculation in Habanero chilli plants (*Capsicum chinense* Jacquin). *Tropical and Subtropical Agroecosystems* 4 (1) : 21–27.
- Chakraborti S 2004 Sustainable management of apical leaf curling in chilli. *Journal of Applied Zoological Researches* 15 (1) : 34–36.
- Chatterton S, Sutton J C & Boland G J 2004 Timing *Pseudomonas chlororaphis* applications to control *Pythium aphanidermatum*, *Pythium dissotocum*, and root rot in hydroponic peppers. *Biological Control* 30 (2) : 360–373.
- Chellemi D O & Roskopf E N 2004 Yield potential and soil quality under alternative crop production practices for fresh market pepper. *Renewable Agriculture and Food Systems* 19 (3) : 168–175.

- Chong J L, Idris A B & Mohamad-Roff M N 2004 Effects of mixed cropping on the population abundance of *Aphis gossypii* Glover and coccinellids on chilli. *Plant Protection Quarterly* 19 (3) : 90–95.
- Coutts B A, Thomas Carroll M L & Jones R A C 2004 Patterns of spread of tomato spotted wilt virus in field crops of lettuce and pepper: spatial dynamics and validation of control measures. *Annals of Applied Biology* 145 (2) : 231–245.
- Deleito C S R, Fernandes M de, de S Abboud A C & do Carmo M G F 2004 Biofertilizer Agrobio: an alternative in the control of leaf spot in pepper seedlings (*Capsicum annuum* L.). *Ciencia Rural* 34 (4) : 1035–1038.
- Demir I & Okcu G 2004 Aerated hydration treatment for improved germination and seedling growth in aubergine (*Solanum melongena*) and pepper (*Capsicum annuum*). *Annals of Applied Biology* 144 (1) : 121–123.
- Do H, Lee S, Jung H, Sohn K & Hwang B 2004 Differential expression and *in situ* localization of a pepper defensin (CADEF1) gene in response to pathogen infection, abiotic elicitors and environmental stresses in *Capsicum annuum*. *Plant Science* 166 (5) : 1297–1305.
- Egea G C, Dickinson M J, Bilotti G & Candela M E 2003 Isolation of resistance gene analogs in pepper using modified AFLPs. *Biologia Plantarum* 47 (1) : 27–32.
- Espinosa Victoria D, Gonzalez Mendoza D, Placencia de la Parra J & Garcia Espinosa R 2004 Reduction of *Phytophthora capsici* Leon. incidence on *Glomus intraradices*-premycorrhized root system of chilli seedlings. *Terra* 22 (3) : 317–326.
- Fan Y, Liu Y & Yan L 2004 'Jiyan 8'-a pepper hybrid produced by male sterile lines. *Acta Horticulturae Sinica* 31 (3) : 422.
- Fiori M & Schiaffino A 2004 Bacterial stem rot in greenhouse pepper (*Capsicum annuum* L.) in Sardinia (Italy): occurrence of *Erwinia carotovora* subsp. *carotovora*. *Journal of Phytopathology* 152 (1) : 28–33.
- Fukumoto Y, Nishimura Y & Shimasaki K 2004 Effects of the fruit load on fruit set and bearing habit in sweet pepper (*Capsicum annuum* L.). *Journal of the Japanese Society for Horticultural Science* 73 (2) : 171–177.
- Fung R W M, Wang C Y, Smith D L, Gross K C, Tian M & Tian M S 2004 MeSA and MeJA increase steady-state transcript levels of alternative oxidase and resistance against chilling injury in sweet peppers (*Capsicum annuum* L.). *Plant Science* 166 (3) : 711–719.
- Garcia P E, Castro M E & Lozoya G E 2004 Gene expression and enzyme activity of pepper (*Capsicum annuum* L.) ascorbate oxidase during elicitor and wounding stress. *Plant Science* 166 (1) : 237–243.
- Garmendia I, Goicoechea N & Aguirreolea J 2004 Effectiveness of three *Glomus* species in protecting pepper (*Capsicum annuum* L.) against *Verticillium* wilt. *Biological Control* 31 (3) : 296–305.
- Gayoso C, Pomar F, Merino F & Bernal M A 2004 Oxidative metabolism and phenolic compounds in *Capsicum annuum* L. var. *annuum* infected by *Phytophthora capsici* Leon. *Scientia Horticulturae* 102 (1) : 1–13.
- Ge H L, Guo J H, Qi H Y, Guo Y H & Huang Y X 2004 Biological control of *Capsicum* bacterial wilt by compound bacterial mixture AR99. *Acta Phytopathologica Sinica* 34 (2) : 162–165.
- Gibbs H A A & O' Garro L W 2004 Capsaicin content of West Indies hot pepper cultivars using colorimetric and chromatographic techniques. *HortScience* 39 (1) : 132–135.
- Gilardi P, Garcia-Luque I & Serra M T 2004 The coat protein of tobamovirus acts as elicitor of both L2 and L4 gene-mediated resistance in *Capsicum*. *Journal of General Virology* 85 (7) : 2077–2085.
- Gilreath J P, Noling J W, & Santos B M 2004 Methyl bromide alternatives for bell pepper (*Capsicum annuum*) and cucumber (*Cucumis sativus*) rotations. *Crop Protection* 23 (4) : 347–351.

- Gilreath J P & Santos B M 2004 Herbicide dose and incorporation depth in combination with 1,3-dichloropropene plus chloropicrin for *Cyperus rotundus* control in tomato and pepper. *Crop Protection* 23 (3) : 205–210.
- Gilreath J P & Santos B M 2004 Efficacy of methyl bromide alternatives on purple nutsedge (*Cyperus rotundus*) control in tomato and pepper. *Weed Technology* 18 (2) : 341–345.
- Goicoechea N, Aguirreolea J & Garcia Mina J M 2004 Alleviation of *Verticillium* wilt in pepper (*Capsicum annuum* L.) by using the organic amendment COA H of natural origin. *Scientia Horticulturae* 101 (1–2) : 23–37.
- Gonzalez P R & Santin I 2004 Effects of early weed infestation on growth, yield, and nitrogen nutrition of pepper. *Journal of Plant Nutrition* 27 (4) : 651–661.
- Heredia Leon J C, Talamas A R, Mendoza G, V, Solis M F, Jimenez C J, Barnard J & Quintero R A 2004 Structural and physical properties of dried Anaheim chilli peppers modified by low-temperature blanching. *Journal of the Science of Food and Agriculture* 84 (1) : 59–65.
- Hill F & Wilson J 2004 Powdery mildew found on capsicums. *Biosecurity* 51 : 13.
- Hingole D G & Kurundkar B P 2004 Fungicidal evaluation and economics in controlling anthracnose of chilli. *Journal of Soils and Crops* 14 (1) : 175–180.
- Huang K, Liu M Y, Wu Q Y & Wen Q F 2004 A study on the correlation between the combined application of N, P and K and the quality of hot pepper. *Acta Agriculturae Universitatis Jiangxiensis* 26 (1) : 112–115.
- Idoia G, Nieves G & Jone A 2004 Plant phenology influences the effect of mycorrhizal fungi on the development of *Verticillium*-induced wilt in pepper. *European Journal of Plant Pathology* 110 (3) : 227–238.
- Ikegashira Y, Ohki T, Ichiki U T, Higashi T, Hagiwara K, Omura T, Honda Y & Tsuda S 2004 An immunological system for the detection of pepper mild mottle virus in soil from green pepper fields. *Plant Disease* 88 (6) : 650–656.
- Ishikawa K, Sasaki S, Matsufuji H & Nunomura O 2004 High beta-carotene and capsaicinoid contents in seedless fruits of 'Shishitoh' pepper. *HortScience* 39 (1) : 153–155.
- Jadczak D & Grzeszczuk M 2004 Determination of content of mineral components in fruits of hot and semi-hot pepper cultivars *Capsicum annuum* L. *Journal of Elementology* 9 (1) : 15–23.
- Jadhav M S, Gawade B J, Nimbalkar C A & Kale R H 2004 Studies on dehydration characteristics of chillies grown in *kharif* season. *Journal of Soils and Crops* 14 (1) : 187–191.
- Jang S, Ishihara A, Back K, Jang S M & Back K W 2004 Production of coumaroylserotonin and feruloylserotonin in transgenic rice expressing pepper hydroxycinnamoyl-coenzyme A:serotonin N-(hydroxycinnamoyl)transferase. *Plant Physiology* 135 (1) : 346–356.
- Jeon H, Kim H, Yang C, Cho M, Yiem M & Choo H 2004 Development of simple monitoring techniques of fungus gnats, *Bradysia agrestis* (Diptera: Sciaridae) larva and adult in sweet pepper greenhouse. *Korean Journal of Applied Entomology* 43 (2) : 129–134.
- Joi M B, Deshmukh D P & Khadatare R M 2004 Efficacy of RIL 006/C1, a new fungicide for the control of anthracnose and fruit rot of chilli. *Annals of Plant Protection Sciences* 12 (2) : 463–464.
- Joo G J, Kim Y M, Lee I J, Song K S & Rhee I K 2004 Growth promotion of red pepper plug seedlings and the production of gibberellins by *Bacillus cereus*, *Bacillus macroides* and *Bacillus pumilus*. *Biotechnology Letters* 26 (6) : 487–491.
- Jovicich E & Cantliffe D J 2004 Salts deposited on the lower stem of bell pepper contribute to a basal stem disorder in soilless, greenhouse-grown plants. *HortScience* 39 (1) : 36–39.
- Jung E, Jung H, Lee S, Han S, Heu S & Hwang B 2004 Identification of a novel pathogen-induced gene encoding a leucine-rich repeat protein expressed in phloem cells of *Capsicum annuum*. *Biochimica et Biophysica Acta, Gene Structure and Expression* 1676 (3) : 211–222.

- Jung W, Jin Y, Kim Y, Kim K, Park R & Kim T 2004 Inoculation of *Paenibacillus illinoisensis* alleviates root mortality, activates of lignification-related enzymes, and induction of the isozymes in pepper plants infected by *Phytophthora capsici*. *Biological Control* 30 (3) : 645-652.
- Kaleemullah S & Kailappan R 2004 Moisture sorption isotherms of red chillies. *Biosystems Engineering* 88 (1) : 95-104.
- Katoh N, Yui M, Sato S, Shirai T, Yuasa H & Hagimori M 2004 Production of virus-free plants from virus-infected sweet pepper by *in vitro* grafting. *Scientia Horticulturae* 100 (1-4) : 1-6.
- Kim B, Han J, Joo Y & Kim J 2004 Genotyping of the sources of resistance to bacterial wilt in pepper (*Capsicum annuum* L.) with respect to fertility-restoring gene interacting with male sterile cytoplasm. *Journal of the Korean Society for Horticultural Science* 45 (1) : 27-30.
- Kim C H, Kim Y Y, Park S B & Eom T J 2004 Chemical composition and alkaline pulping of a stem of red pepper (*Capsicum annuum* L.). *Mokchae Konghak = Journal of the Korean Wood Science and Technology* 32 (2) : 26-32.
- Kim J H, Baek M H, Chung B Y, Lee Y B & Kim J S 2004 Comparison of sensitivity to photoinhibition and UV-B stress between developing and mature leaves of red pepper (*Capsicum annuum* L.) plants from control and gamma-irradiated seeds. *Journal of the Korean Society for Horticultural Science* 45 (2) : 66-73.
- Kim K T, Choi H S, Chae Y, Oh D G & Kim B D 2004 Mapping QTL associated with *Phytophthora* root rot resistance in chilli (*Capsicum annuum*). *Acta Horticulturae* 637 : 251-255.
- Kim S, Park J & Hwang I K 2004 Composition of main carotenoids in Korean red pepper (*Capsicum annuum*, L.) and changes of pigment stability during the drying and storage process. *Journal of Food Science* 69 (1) : T39-T44.
- Lang Y Q, Yanagawa S, Sasanuma T & Sasakuma T 2004 Orange fruit color in *Capsicum* due to deletion of capsanthin-capsorubin synthesis gene. *Breeding Science* 54 (1) : 33-39.
- Lee J M, Nahm S H, Kim Y M & Kim B D 2004 Characterization and molecular genetic mapping of microsatellite loci in pepper. *Theoretical and Applied Genetics* 108 (4) : 619-627.
- Lee S, Kim S, Chung E, Joung Y, Pai H, Hur C & Choi D 2004 EST and microarray analyses of pathogen-responsive genes in hot pepper (*Capsicum annuum* L.) non-host resistance against soybean pustule pathogen (*Xanthomonas axonopodis* pv. *glycines*). *Functional and Integrative Genomics* 4 (3) : 196-205.
- Li G, Zhang W, Benoit F & Ceustermans N 2004 Effects of environment factors on the growth and incidence of blossom-end rot in soilless *Capsicum frutescens* var. *grossum*. *Acta Horticulturae* 633 : 381-389.
- Liu X, Zhou Y, Li L & Pan Z 2004 Effect of inoculum density, soil water matric potential and soil temperature on mortality of pepper caused by *Phytophthora capsici*. *Acta Phytopathologica Sinica* 34 (3) : 254-260.
- Lozano G, Moriones E & Navas Castillo J 2004 First report of sweet pepper (*Capsicum annuum*) as a natural host plant for tomato chlorosis virus. *Plant Disease* 88 (2) : 224.
- Lucas Garcia J A, Probanza A, Ramos B, Ruiz Palomino M & Gutierrez Manero F J 2004 Effect of inoculation of *Bacillus licheniformis* on tomato and pepper. *Agronomie* 24 (4) : 169-176.
- Lupito A E, Maiti R K, Verde S J & Hernandez Pinero J L 2004 Variation in nutritional quality of wild chilli, "Chile piquin" (*Capsicum annuum* var. *aviculare* Dierb) at different stages of fruit maturity: a preliminary study. *Crop Research, Hisar* 27 (1) : 113-115.
- Maalekuu K, Elkind Y, Tuvia Alkalai S, Shalom Y & Fallik E 2004 The influence of harvest season and cultivar type on several quality traits and quality stability in three commercial sweet bell peppers during the harvest period. *Advances in Horticultural Science* 18 (1) : 21-25.
- Malathi G & Veeraragavathatham D 2004 Per se performance and heterosis of two hybrids of chillies (*Capsicum annuum* L.) for qualitative traits in three different seasons. *Capsicum and Eggplant Newsletter* 23 : 65-68.

- Maoka T, Akimoto N, Fujiwara Y & Hashimoto K 2004 Structure of new carotenoids with the 6-oxo-kappa end group from the fruits of paprika, *Capsicum annuum*. *Journal of Natural Products* 67 (1) : 115-117.
- Marcussi F F N, Boas R L V, Goto R & de Godoy L J G 2004 Macronutrient accumulation and partitioning in fertigated sweet pepper plants. *Scientia Agricola* 61 (1) : 62-68.
- Martin C A & Stutz J C 2004 Interactive effects of temperature and arbuscular mycorrhizal fungi on growth, P uptake and root respiration of *Capsicum annuum* L. *Mycorrhiza* 14 (4) : 241-244.
- Martin H L, Hamilton V A & Kopittke R A 2004 Copper tolerance in Australian populations of *Xanthomonas campestris* pv. *vesicatoria* contributes to poor field control of bacterial spot of pepper. *Plant Disease* 88 (9) : 921-924.
- Mayak S, Tirosh T & Glick B R 2004 Plant growth-promoting bacteria that confer resistance to water stress in tomatoes and peppers. *Plant Science* 166 (2) : 525-530.
- Min T, Yoon H, Min T G & Yoon H J 2004 Effect of controlled hydration on germination of pepper (*Capsicum annuum*) seeds. *Journal of the Korean Society for Horticultural Science* 45 (1) : 5-8.
- Mini S & Khader K M A 2004 Variability, heritability and genetic advance in wax type chilli (*Capsicum annuum* L.). *Capsicum and Eggplant Newsletter* 23 : 49-52.
- Mongkolporn O, Dokmaihom Y, Kanchana U C & Pakdeevaporn P 2004 Genetic purity test of F1 hybrid *Capsicum* using molecular analysis. *Journal of Horticultural Science and Biotechnology* 79 (3) : 449-451.
- Motis T N, Locascio S J & Gilreath J P 2004 Critical yellow nutsedge-free period for polyethylene-mulched bell pepper. *HortScience* 39 (5) : 1045-1049.
- Moury B, Morel C, Johansen E, Guilbaud L, Souche S, Ayme V, Caranta C, Palloix A & Jacquemond M 2004 Mutations in Potato virus Y genome-linked protein determine virulence toward recessive resistances in *Capsicum annuum* and *Lycopersicon hirsutum*. *Molecular Plant Microbe Interactions* 17 (3) : 322-329.
- Nagaraju D K, Viraktamath C A & Kumar N K K 2004 New report of two phytophagous hymenoptera on flower of bell pepper and brinjal from South India. *Insect Environment* 10 (1) : 25-26.
- Nisha C & Chopra N K 2004 Effect of soil solarization on weeds and nurseries of brinjal and chilli. *Indian Journal of Weed Science* 36 (1-2) : 150-152.
- Noor A 2004 Management of early season pests of chilli (*Capsicum annuum* L.) by different insecticidal application methods in arid Western Rajasthan. *Scientific Horticulture* 9 : 101-109.
- Nowak J, Sharma V K, A' Hearn E, Nicola S & Vavrina C S 2004 Endophyte enhancement of transplant performance in tomato, cucumber and sweet pepper. *Acta Horticulturae* No. 631 : 253-263.
- Nyla J & Bushra M 2004 Ethyl methanesulfonate induces morphological mutations in *Capsicum annuum*. *International Journal of Agriculture and Biology* 6 (2) : 340-345.
- Obradovic A, Mavridis A, Rudolph K, Janse J D, Arsenijevic M, Jones J B, Minsavage G V & Wang J 2004 Characterization and PCR-based typing of *Xanthomonas campestris* pv. *vesicatoria* from peppers and tomatoes in Serbia. *European Journal of Plant Pathology* 110 (3) : 285-292.
- Oka Y, Offenbach R & Pivonia S 2004 Pepper rootstock graft compatibility and response to *Meloidogyne javanica* and *M. incognita*. *Journal of Nematology* 36 (2) : 137-141.
- Onus A N & Pickersgill B 2004 Segregation of morphological and isozyme markers in a cross of *Capsicum baccatum* and *Capsicum cardenasii*. *Israel Journal of Plant Sciences* 52 (1) : 37-44.
- Patel J A, Patel M J, Acharya R R, Bhanvadia A S & Bhalala M K 2004 Hybrid vigour, gene action and combining ability in chilli (*Capsicum annuum* L.) hybrids involving male sterile lines. *Indian Journal of Genetics and Plant Breeding* 64 (1) : 81-82.

- Patel K K 2004 Effect of chilli mosaic virus disease on protein and carbohydrate content of chilli varieties Faizabadi and Patna Red in Eastern (U.P.) India. *Journal of Living World* 11 (1) : 27-29.
- Paran I, van de Voort J R, Lefebvre V, Jahn M, Landry L, Tanyolac B, Caranta C, Chaim A B, Livingstone K, Palloix A, Peleman J & van Schriek M 2004 An integrated genetic linkage map of pepper (*Capsicum* spp.). *Molecular Breeding* 13 (3) : 251-261.
- Park C J, Kim K J, Shin R, Park J M, Shin Y C & Paek K H 2004 Pathogenesis-related protein 10 isolated from hot pepper functions as a ribonuclease in an antiviral pathway. *Plant Journal* 37 (2) : 186-198.
- Peddaboina V, Christopher T & Subhash K 2004 Selection and characterization of sodium chloride and mannitol tolerant callus lines of red pepper (*Capsicum annuum* L.). *Indian Journal of Plant Physiology* 9 (2) : 158-163.
- Perez G M, Gonzalez H, V, Mendoza Castillo M C, Pena V C, Pena L A & Sahagun C J 2004 Physiological characterization of manzano hot pepper (*Capsicum pubescens* R & P) landraces. *Journal of the American Society for Horticultural Science* 129 (1) : 88-92.
- Pordesimo L O, Li H, Lee J H & Reddick B B 2004 Effects of drying procedure, cultivar, and harvest number on capsaicin levels in dried jalapeno peppers. *Applied Engineering in Agriculture* 20 (1) : 35-38.
- Portis E, Acquadro A, Comino C & Lanteri S 2004 Analysis of DNA methylation during germination of pepper (*Capsicum annuum* L.) seeds using methylation-sensitive amplification polymorphism (MSAP). *Plant Science* 166 (1) : 169-178.
- Portis E, Acquadro A, Comino C & Lanteri S 2004 Effect of farmers' seed selection on genetic variation of a landrace population of pepper (*Capsicum annuum* L.), grown in North-West Italy. *Genetic Resources and Crop Evolution* 51 (6) : 581-590.
- Qiao J, Sasao A, Shibusawa S, Kondo N, Morimoto E & Qiao J 2004 Mobile fruit grading robot (Part 1) - development of a robotic system for grading sweet peppers. *Journal of the Japanese Society of Agricultural Machinery* 66 (2) : 113-122.
- Qiu S, He H, Ruan H, Guan X & Hu F 2004 Biological control of pepper *Phytophthora* blight by endophytic TB2 (*Bacillus* sp.). *Acta Phytopathologica Sinica* 34 (2) : 173-179.
- Rahman M K, Islam M R & Hossain I 2004 Effect of Bion, Amistar and Vitavax on anthracnose of chilli. *Journal of Food, Agriculture and Environment* 2 (2) : 210-217.
- Reiner H & Palme W 2004 Paprika, pfefferoni and chilli (*Capsicum* sp.) and its traditional processed vegetable products and spices in Austria. *Ernahrung* 28 (9) : 369-374.
- Rodriguez Y, Rangel E, Centeno F, Mendoza O & Parra A 2004 Detection of viral diseases affecting sweet pepper in Counties Iribarren, Jimenez and Torres of Lara State, Venezuela, using ELISA technique. *Revista de la Facultad de Agronomia, Universidad del Zulia* 21 (2) : 105-115.
- Ruffel S, Caranta C, Palloix A, Lefebvre V, Caboche M & Bendahmane A 2004 Structural analysis of the eukaryotic initiation factor 4E gene controlling potyvirus resistance in pepper: exploitation of a BAC library. *Gene* 338 (2) : 209-216.
- Sanogo S 2004 Response of chilly pepper to *Phytophthora capsici* in relation to soil salinity. *Plant Disease* 88 (2) : 205-209.
- Santos H S & Goto R 2004 Sweet pepper grafting to control *Phytophthora* blight under protected cultivation. *Horticultura Brasileira* 22 (1) : 45-49.
- Schnitzler W H, Sharma A K, Gruda N S & Heuberger H T 2004 A low-tech hydroponic system for bell pepper (*Capsicum annuum* L.) production. *Acta Horticulturae* No. 644 : 47-53.
- Schroeder J, Thomas S H & Murray L W 2004 Root-knot nematodes affect annual and perennial weed interactions with chilly pepper. *Weed Science* 52 (1) : 28-46.

- Sharfun N, Muhammad M & Pathan I H 2004 Seedborne mycoflora of *Capsicum annuum* imported from India. *Pakistan Journal of Botany* 36 (1) : 191-197.
- Shinde P P, Chavan M G, More V G & Mane M J 2004 Effect of micro-irrigation systems and nitrogen levels on growth and yield of chilli under lateritic soils of Konkan. *Journal of Maharashtra Agricultural Universities* 29 (1) : 25-26.
- Shirai T & Hagimori M 2004 A multiplication method of sweet pepper (*Capsicum annuum* L.) by vegetative propagation. *Journal of the Japanese Society for Horticultural Science* 73 (3) : 259-265.
- Shirai T & Hagimori M 2004 Multiplication method of *Capsicum annuum* L. by soilless culture: effects of planting density of mother plants and the substrates on yield of shoots. *Journal of the Japanese Society for Horticultural Science* 73 (4) : 374-379.
- Shirai T & Hagimori M 2004 Studies in establishment of transplant production method of sweet pepper (*Capsicum annuum* L.) by grafting shoots harvested from mother plants: effects of healing conditions of grafts on the rate and quality of successful union. *Journal of the Japanese Society for Horticultural Science* 73 (4) : 380-385.
- Si Y B, Zhou J, Zhou D M & Chen H M 2004 Soil manganese and iron released due to calcium salts: bioavailability to pepper (*Capsicum frutescens* L.). *Pedosphere* 14 (1) : 111-116.
- Sid A, Ezziyyani M, Egea Gilabert C & Candela M E 2003 Selecting bacterial strains for use in the biocontrol of diseases caused by *Phytophthora capsici* and *Alternaria alternata* in sweet pepper plants. *Biologia Plantarum* 47 (4) : 569-574.
- Singh D K & Jain S K 2004 Interaction effect of nitrogen and phosphorus on yield and economics of chilli (*Capsicum annuum* L.), cv. Pant C-1. *Scientific Horticulture* 9 : 97-100.
- Soniya E V & Nair G M 2004 Multiple shoot regeneration and indirect organogenesis in chilli pepper (*Capsicum annuum* L.). *Capsicum and Eggplant Newsletter* 23 : 93-96.
- Stirling G R, Eden L M, & Ashley M G 2004 Sudden wilt of *Capsicum* in tropical and subtropical Australia: a severe form of *Pythium* root rot exacerbated by high soil temperatures. *Australasian Plant Pathology* 33 (3) : 357-366.
- Stommel J R & Griesbach R J 2004 *Capsicum annuum* L. 'Tangerine Dream'. *HortScience* 39 (2) : 448-449.
- Sugita T, Yamaguchi K, Sugimura Y, Nagata R, Yuji K, Kinoshita T & Todoroki A 2004 Development of SCAR markers linked to L3 gene in *Capsicum*. *Breeding Science* 54 (2) : 111-115.
- Thabuis A, Lefebvre V, Bernard G, Daubeze A M, Phaly T, Pochard E & Palloix A 2004 Phenotypic and molecular evaluation of a recurrent selection program for a polygenic resistance to *Phytophthora capsici* in pepper. *Theoretical and Applied Genetics* 109 (2) : 342-351.
- Thabuis A, Palloix A, Servin B, Daubeze A M, Signoret P, Hospital F & Lefebvre V 2004 Marker-assisted introgression of 4 *Phytophthora capsici* resistance QTL alleles into a bell pepper line: validation of additive and epistatic effects. *Molecular Breeding* 14 (1) : 9-20.
- Thies J A, Davis R F, Mueller J D, Fery R L, Langston D B & Miller G 2004 Double-cropping cucumbers and squash after resistant bell pepper for root-knot nematode management. *Plant Disease* 88 (6) : 589-593.
- Tian M, Gupta D, Lei X Y, Prakash S, Xu C & Fung R W M 2004 Effects of low temperature and ethylene on alternative oxidase in green pepper (*Capsicum annuum* L.). *Journal of Horticultural Science and Biotechnology* 79 (3) : 493-499.
- Toivonen P M A & Stan S 2004 The effect of washing on physicochemical changes in packaged, sliced green peppers. *International Journal of Food Science and Technology* 39 (1) : 43-51.
- Topuz A & Ozdemir F 2004 Influences of gamma irradiation and storage on the capsaicinoids of sun-dried and dehydrated paprika. *Food Chemistry* 86 (4) : 509-515.

- Toyoda K, Hikichi Y, Takeuchi S, Kuroda T, Okumura A, Nasu Y, Okuno T & Suzuki K 2004 Epidemiological aspects of the Japanese tobamovirus strain, pepper mild mottle virus (PMMoV) infecting the L2 resistance genotype of green pepper (*Capsicum annuum* L.). Scientific Reports of the Faculty of Agriculture, Okayama University 93 : 19-7.
- Toyoda K, Hikichi Y, Takeuchi S, Okumura A, Nasu Y, Okuno T & Suzuki K 2004 Efficient inactivation of Pepper mild mottle virus (PMMoV) in harvested seeds of green pepper (*Capsicum annuum* L.) assessed by a reverse transcription and polymerase chain reaction (RT-PCR)-based amplification. Scientific Reports of the Faculty of Agriculture, Okayama University 93 : 29-32.
- Tsai Y L, Chen M J, Hsu S T, Tzeng D D S & Tzeng K C 2004 Control potential of foliar *Pseudomonas putida* YLFP14 against bacterial spot of sweet pepper. Plant Pathology Bulletin 13 (3) : 191-200.
- Tsai Y L, Lin Y C, Hsu S T & Tzeng K C 2004 The relation of antibiosis to the biocontrol of bacterial spot of sweet pepper by *Pseudomonas putida* YLFP14. Plant Pathology Bulletin 13 (3) : 201-210.
- Uquiche E, Valle J d, Ortiz J & del Valle J M 2004 Supercritical carbon dioxide extraction of red pepper (*Capsicum annuum* L.) oleoresin. Journal of Food Engineering 65 (1) : 55-66.
- Votava E J & Bosland P W 2004 'NuMex Suave Red' and 'NuMex Suave Orange' mild *Capsicum chinense* cultivars. HortScience 39 (3) : 627-628.
- Wadaskar R M, Deotale V Y & Sharnagat B K 2004 Evaluation of *Chrysoperla* releases along with insecticides against pests of chilli. Journal of Soils and Crops 14 (1) : 62-65.
- Wagner A 2004 Fungal communities colonising stems of hot pepper (*Capsicum annuum*). Phytopathologia Polonica 33 : 23-29.
- Walunj A R & Pawar S A 2004 An evaluation of thiacloprid against pests of chilli. Tests of Agrochemicals and Cultivars 25 : 6-7.
- Zewdie Y, Tong N K & Bosland P 2004 Establishing a core collection of *Capsicum* using a cluster analysis with enlightened selection of accessions. Genetic Resources and Crop Evolution 51 (2) : 147-151.
- Zhou Q, Zhu Y X, Chiang H, Yagiz K, Morre D J, Morre D M, Janle E & Kissinger P T 2004 Identification of the major vanilloid component in *Capsicum* extract by HPLC-EC and HPLC-MS. Phytochemical Analysis 15 (2) : 117-120.
- Zhu J H, Li X L, Zhang F S, Christie P & Li J L 2004 Responses of greenhouse tomato and pepper yields and nitrogen dynamics to applied compound fertilizers. Pedosphere 14 (2) : 213-222.
- Zou X X, Hou X L, Dai X Z, Ma Y Q, Zhou Q C, Li X F, Zhang Z Q, Liu R Y, & Chen W C 2004 Principal component analysis and numeric taxonomy of the local varieties in *Capsicum* genus. Journal of Hunan Agricultural University 30 (3) : 243-246.
- Zuniga E L, Martinez Hernandez J de, Baca Castillo G A, Martinez G A, Tirado Torres J L & Kohashi S J 2004 Bell pepper production in two irrigation systems under hydroponics conditions. Agrociencia Montecillo 38 (2) : 207-218
- Clove (*Syzygium aromaticum* L. Merr. & Perry)**
- Kong Q, Song Y, Zhang L, Chen L & Li Q 2004 Natural antifungal compounds from *Syzygium aromaticum* (L.) Merr. et Perry. Acta Agriculturae, Shanghai 20 (3) : 68-72.
- Pathak S B, Niranjana K, Padh H & Rajani M 2004 TLC densitometric method for the quantification of eugenol and gallic acid in clove. Chromatographia 60 (3/4) : 241-244.

Coriander (*Coriandrum sativum* L.)

- Davila J H, Torres V R, Mendoza A B, Bracho J d, Villa V-M Z, Rivera A-F R, Morales J R & Maiti R K 2004 Regression, correlation and path analysis for predicting flowering in coriander (*Coriandrum sativum* L.). Crop Research, Hisar 27 (2/3) : 300-308.
- Lok N, Singh A K & Singh H M 2004 Relative resistance of coriander (*Coriandrum sativum* L.) germplasm against aphid *Hyadaphis coriandri*. Shashpa 11 (1) : 87-88.
- Patel R H, Jagruti S, Usadadia V P & Shah S N 2004 Influence of nitrogen and weed management practices on weeds and coriander. Indian Journal of Weed Science 36 (1-2) : 86-88
- Rao V K, Roy T K, Shivashankara K S & Varalakshmi B 2004 A comparative study of whole herb and leaf essential oils of coriander. Journal of Essential Oil Bearing Plants 7 (1) : 49-55.
- Seema K & Yadav R P 2004 Resurgence in aphid, *Hyadaphis coriandri* (Das) as influenced by insecticidal soil dressing in coriander crop. Journal of Applied Zoological Researches 15 (1) : 68-69.
- Wangensteen H, Samuelsen A B & Malterud K E 2004 Antioxidant activity in extracts from coriander. Food Chemistry 88 (2) : 293-297.

Cumin (*Cuminum cyminum* L.)

- Ghasolia R P & Jain S C 2004 Present status of mycoflora of cumin seeds and their effect on seedling health. Annals of Agri Bio Research 9 (2) : 223-228.
- Jasvir S & Selvan M T 2004 Integrated pest management (IPM) package for cumin. Indian Journal of Arecanut, Spices and Medicinal Plants 6 (2) : 67-69.
- Li R, Jiang Z, Li R & Jiang Z T 2004 Chemical composition of the essential oil of *Cuminum cyminum* L. from China. Flavour and Fragrance Journal 19 (4) : 311-313.
- Sunil I & Satish L 2004 Factors influencing population dynamics of *Fusarium oxysporum* f. sp. *cumini* in the presence and absence of cumin crop in arid soils. Phytopathologia Mediterranea 43 (1) : 3-13.
- Yadav R S, Sharma S K, Poonia B L & Dahama A K 2004 Selectivity and phytotoxicity of oxadiargyl on cumin and weeds and its residual effect on succeeding mothbean and pearl millet. Indian Journal of Weed Science 36 (1-2) : 83-85.

Dill (*Anethum graveolens* L.)

- Sharma R K, Wakhlu A K & Boleria M 2004 Micropropagation of *Anethum graveolens* L. through axillary shoot proliferation. Journal of Plant Biochemistry and Biotechnology 13 (2) : 157-159.

Fennel (*Foeniculum vulgare* Miller)

- Ashraf M & Akhtar N 2004 Influence of salt stress on growth, ion accumulation and seed oil content in sweet fennel. Biologia Plantarum 48 (3) : 461-464.
- Dobromilska R 2004 The influence of seedling production method and earthing up of plant on the yielding of fennel in unheated greenhouse. Folia Universitatis Agriculturae Stetinensis, Agricultura 93 : 69-73.
- Ostad S N, Khakinegad B & Sabzevari O 2004 Evaluation of the teratogenicity of fennel essential oil (FEO) on the rat embryo limb buds culture. Toxicology in Vitro 18 (5) : 623-627.

Fenugreek (*Trigonella foenum-graecum* L.)

- Abolhassan A, Abdolhossein R, Mahmonir K & Mohammad K 2004 Volatile constituents from the oil of *Trigonella foenum graecum* L. Journal of Essential Oil Research 16 (4) : 356-357.

- Alireza P, Abolhassan A & Mohammad K 2004 Spinal serotonergic system is partially involved in antinociception induced by *Trigonella foenum graecum* (TFG) leaf extract. *Journal of Ethnopharmacology* 95 (1) : 13–17
- Flammang A M, Cifone M A, Erexson G L & Stankowski L F, Jr. 2004 Genotoxicity testing of a fenugreek extract. *Food and Chemical Toxicology* 42 (11) : 1769–1775.
- Fogg M L, Reedy R M, Kobayashi D Y, Johnston S A & Kline W L 2004 Occurrence of bacterial blight of fenugreek caused by *Pseudomonas syringae* pv. *syringae* and isolation of the pathogen from infested seed. *Canadian Journal of Plant Pathology* 26 (2) : 129–133.
- Kalra V K, Sharma S S & Thakral K K 2004 Population dynamics of the insect pests attacking fenugreek, *Trigonella foenum-graecum* crop. *Journal of Medicinal and Aromatic Plant Sciences* 26 (1) : 31–33.
- Khawar K M, Gulbitti Onarici S, Cocu S, Erisen S, Sancak C & Ozcan S 2004 *In vitro* crown galls induced by *Agrobacterium tumefaciens* strain A281 (pTiBo542) in *Trigonella foenum graecum*. *Biologia Plantarum* 48 (3) : 441–444.
- Mazhar A, Khan M M, Iqbal M J & Khan R W 2004 Effects of artificial ageing on viability and leachate exudation in fenugreek (*Trigonella foenum graecum* L.) seeds. *Journal of the Korean Society for Horticultural Science* 45 (5) : 238–242.
- Raju J, Patlolla J M R, Swamy M V & Rao C V 2004 Diosgenin, a steroid saponin of *Trigonella foenum graecum* (fenugreek), inhibits azoxymethane-induced aberrant crypt foci formation in F344 rats and induces apoptosis in HT-29 human colon cancer cells. *Cancer Epidemiology, Biomarkers and Prevention* 13 (8) : 1392–1398.
- Saxena V K & Shalem A 2004 Yamogenin-3-O-B-D-glucopyranosyl-(1 → 4)-O- α -D-xylopyranoside from the seeds of *Trigonella foenum graecum*. *Journal of Chemical Sciences* 116 (2) : 79–82.
- Vats V, Yadav S P, Biswas N R & Grover J K 2004 Anti-cataract activity of *Pterocarpus marsupium* bark and *Trigonella foenum graecum* seeds extract in alloxan diabetic rats. *Journal of Ethnopharmacology* 93 (2/3) : 289–294.

Garcinia (*Garcinia* spp.)

- Abe F, Nagafuji S, Okabe H, Akahane H, Estrada M E, Huerta R M & Reyes C R 2004 Trypanocidal constituents in plants. 3. Leaves of *Garcinia intermedia* and heartwood of *Calophyllum brasiliense*. *Biological and Pharmaceutical Bulletin* 27 (1) : 141–143.
- Gawankar M S, Shingre D V, Sagvekar V V & Patil B P 2004 Evaluation of early performing Kokum (*Garcinia indica* Choisy) genotypes. *Indian Journal of Arecanut, Spices and Medicinal Plants* 6 (1) : 13–15.
- Mathew P A, Rema J & Krishnamurthy B 2004 A note on interspecific grafting in garcinias. *Indian Journal of Arecanut, Spices and Medicinal Plants* 6 (2) : 55–58.
- Onunkwo G C, Egeonu H C, Adikwu M U, Ojile J E & Olowosulu A K 2004 Some physical properties of tabletted seed of *Garcinia kola* (Heckel). *Chemical and Pharmaceutical Bulletin* 52 (6) : 649–653.

Garlic (*Allium sativum* L.)

- Anikster Y, Szabo L J, Eilam T, Manisterski J, Koike S T & Bushnell W R 2004 Morphology, life cycle biology, and DNA sequence analysis of rust fungi on garlic and chives from California. *Phytopathology* 94 (6) : 569–577.
- Bae R, Yun S & Mok I 2004 Plant growth and pyruvic acid contents of garlic (*Allium sativum* L.) stored at different CA conditions. *Korean Journal of Horticultural Science and Technology* 22 (2) : 169–172.
- Bekheet S A 2004 Micropropagation of garlic (*Allium sativum* L.). *Annals of Agricultural Science, Cairo* 49 (1) : 223–232.

- Bhonde S R, Chaugule R R & Pandey U B 2004 Studies on assessment of post harvest losses in garlic. *Newsletter, National Horticultural Research and Development Foundation* 24 (1) : 17–21.
- Bloem E, Haneklaus S & Schnug E 2004 Influence of nitrogen and sulfur fertilization on the alliin content of onions and garlic. *Journal of Plant Nutrition* 27 (10) : 1827–1839.
- Chou W, Wo Y & Chu M 2004 RAPD analysis on the genetic diversity among germplasm of Taiwan soft-stem garlic (*Allium sativum*). *Crop Environment and Bioinformatics* 1 (3) : 163–170.
- Cutrubinis M, Delincee H, Bayram G & Villavicencio A L C H 2004 Germination test for identification of irradiated garlic. *European Food Research and Technology* 219 (2) : 178–183.
- Deepika C, Tomar D K & Sachin P 2004 Effect of sodium fluoride on the biomass of garlic, *Allium sativum*. *Bionotes* 6 (3) : 76.
- Dietz D M, Varcelotti J R & Stahlfeld K R 2004 Garlic burns: a not so rare complication of a naturopathic remedy? *Burns* 30 (6) : 612–613.
- Erard P & Jacques M A 2004 Garlic “cafe au lait” disease: results of a field survey for possible experimental strategies. *Infos Ctifl* 206 : 21–25.
- Jenderek M M 2004 Development of S1 families in garlic. *Acta Horticulturae* 637 : 203–206.
- Jones M G, Hughes J, Tregova A, Milne J, Tomsett A B & Collin H A 2004 Biosynthesis of the flavour precursors of onion and garlic. *Journal of Experimental Botany* 55 (404) : 1903–1918.
- Kamenetsky R, Shafir I L, Baizerman M, Khassanov F, Kik C & Rabinowitch H D 2004 Garlic (*Allium sativum* L.) and its wild relatives from Central Asia: evaluation for fertility potential. *Acta Horticulturae* 637 : 83–91.
- Khar A, Asha D, Mahajan V & Lawande K E 2004 Performance studies of some promising garlic accessions under Rajgurunagar conditions. *Journal of Maharashtra Agricultural Universities* 29 (2) : 214–216.
- Kim E K, Hahn E J, Murthy H N & Paek K Y 2004 Enhanced shoot and bulblet proliferation of garlic (*Allium sativum* L.) in bioreactor systems. *Journal of Horticultural Science and Biotechnology* 79 (5) : 818–822.
- Koleva K 2004 Variety of species and spread of fungi of genus *Fusarium* related to rotting of garlic. *Bulgarian Journal of Agricultural Science* 10 (2) : 177–180.
- Liu D, Jiang W & Gao X 2003 Effects of cadmium on root growth, cell division and nucleoli in root tip cells of garlic. *Biologia Plantarum* 47 (1) : 79–83.
- Masoumi A, Rajabipoor A & Akram A 2004 Some physical properties of garlic (*Allium sativum* L.). *Journal of Agricultural Sciences Islamic Azad University* 10 (1) : 119–130.
- Nikolic V, Stankovic M, Nikolic L & Cvetkovic D 2004 Mechanism and kinetics of synthesis of *allicin*. *Pharmazie* 59 (1) : 10–14.
- Pardo Roldan A & Marin R 2003 Characterization of garlic cultivars in Cubiro, Lara State. *Agronomia Tropical Maracay* 53 (4) : 381–395.
- Pardo Roldan A & Marin R 2003 Classification of garlic cultivars by multivariate analysis methods. *Agronomia Tropical Maracay* 53 (4) : 397–416.
- Ricci A 2004 Rosso di Sulmona garlic - a cultivar for re-launching. *Colture Protette* 33 (6) : 49–52.
- Robledo Paz A, Cabrera Ponce J L, Villalobos Arambula V M, Herrera Estrella L & Jofre Garfias A E 2004 Genetic transformation of garlic (*Allium sativum* L.) by particle bombardment. *HortScience* 39 (6) : 1208–1211.
- Shadkchan Y, Shemesh E, Mirelman D, Miron T, Rabinkov A, Wilchek M & Osherov N 2004 Efficacy of allicin, the reactive molecule of garlic, in inhibiting *Aspergillus* spp. *in vitro*, and in a murine model of disseminated aspergillosis. *Journal of Antimicrobial Chemotherapy* 53 (5) : 832–836.

- Singh S K & Singh R K 2004 Interaction effect of nitrogen, planting time and spacing on the performance of garlic, *Allium sativum* Linn. cv. Yamuna Safed (G-1). *Biochemical and Cellular Archives* 4 (2) : 123-128.
- Song W, Li B & Liu K 2004 Advances in research on chemical components in garlic (*Allium sativum*) and mechanism of their inhibitory reaction with pathogens in plants. *Acta Horticulturae Sinica* 31 (2) : 263-268.
- Tabor G, Getahun D & Zelleke A 2004 Influence of storage duration on field sprouting, maturity and yield of some garlic (*Allium sativum* L.) cultivars at Debre Zeit, Ethiopia. *Journal of Horticultural Science and Biotechnology* 79 (6) : 871-876.
- Volk G M, Henk A D & Richards C M 2004 Genetic diversity among US garlic clones as detected using AFLP methods. *Journal of the American Society for Horticultural Science* 129 (4) : 559-569.
- Volk G M, Maness N & Rotindo K 2004 Cryopreservation of garlic (*Allium sativum* L.) using plant vitrification solution 2. *CryoLetters* 25 (3) : 219-226.
- Wang C, Li B & Li H 2004 The effect of Selenium-Sulphur cooperated spraying on the nutrition quality of garlic (*Allium sativum* L.). *Acta Horticulturae Sinica* 31 (4) : 461-466.
- Wani M A, Gincy D & Kuruchev V 2004 Effect of paddy seed treatment with natural products on inoculated fungal spores of *Aspergillus niger* and *A. flavus* under different storage structures. *Environment and Ecology* 22 (2) : 287-292.
- Yuzbasoglu D & Unal F 2004 Karyotyping, C- and NOR banding of *Allium sativum* L. (Liliaceae) cultivated in Turkey. *Pakistan Journal of Botany* 36 (2) : 343-349.

Ginger (*Zingiber officinale* Rosc.)

- Amani N G G, Tetchi F A & Coulibaly A 2004 Physico-chemical properties of starch from ginger rhizome (*Zingiber officinale* Roscoe) of Ivory Coast. *Tropicicultura* 22 (2) : 77-83.
- Guo Y, Xu K, Wang X, Zhang G & Su B 2004 Pathogen identification and occurrence law of ginger root-knot nematode disease. *Acta Phytopythologica Sinica* 31 (3) : 241-246.
- Jolad S D, Lantz R C, Solyom A M, Chen G J, Bates R B & Timmermann B N 2004 Fresh organically grown ginger (*Zingiber officinale*): composition and effects on LPS-induced PGE2 production. *Phytochemistry* 65 (13) : 1937-1954.
- Kumar A & Sarma Y R 2004 Characterization of *Ralstonia solanacearum* causing bacterial wilt in ginger. *Indian Phytopathology* 57 (1) : 12-17.
- Mohan P M K, Borkar G M, Raut N K & Dharmik Y B 2004 Management of rhizome rot of ginger caused by *Fusarium oxysporium* f. sp. *zingiberi*. *Journal of Soils and Crops* 14 (1) : 87-90.
- Shanmugam V, Kumar A & Sarma Y R 2004 Survival of *Ralstonia solanacearum* in ginger rhizomes stored at different temperatures. *Plant Disease Research, Ludhiana* 19 (1) : 40-43.
- Shelly T E, McInnis D O, Pahio E & Edu J 2004 Aromatherapy in the Mediterranean fruit fly (Diptera: Tephritidae): sterile males exposed to ginger root oil in prerelease storage boxes display increased mating competitiveness in field-cage trials. *Journal of Economic Entomology* 97 (3) : 846-853.
- Stirling A M 2004 The causes of poor establishment of ginger (*Zingiber officinale*) in Queensland, Australia. *Australasian Plant Pathology* 33 (2) : 203-210.
- Zhang W, McAuslane H J & Schuster D J 2004 Repellency of ginger oil to *Bemisia argentifolii* (Homoptera: Aleyrodidae) on tomato. *Journal of Economic Entomology* 97 (4) : 1310-1318.

Large cardamom (*Amomum subulatum* Roxb.)

- Naik, J P, Rao L J M, Kumar T M M & Sampathu S R 2004 Chemical composition of the volatile oil from the pericarp (husk) of large cardamom (*Amomum subulatum* Roxb.). *Flavour and Fragrance Journal* 19 (5) : 441-444.

Mustard (*Brassica* spp.)

- Aluko R E & McIntosh T 2004 Electrophoretic and functional properties of mustard seed meals and protein concentrates. *Journal of the American Oil Chemists' Society* 81 (7) : 679-683.
- Angadi S V, Cutforth H W, McConkey B G & Gan Y 2004 Early seeding improves the sustainability of canola and mustard production on the Canadian semiarid prairie. *Canadian Journal of Plant Science* 84 (3) : 705-711.
- Anil K 2004 Build-up of *Lipaphis erysimi* (Kalt.) on mustard crop. *Insect Environment* 10 (1) : 21-22.
- Atwal A K, Ramandeep, Munshi S K & Mann A P S 2004 Biochemical changes in relation to *Alternaria* leaf blight in Indian mustard. *Plant Disease Research, Ludhiana* 19 (1) : 57-59.
- Balwant S, Gupta S K & Kotwal D R 2004 Screening of some *Brassica* species and their strains for resistance to mustard aphid based on aphid infestation. *Environment and Ecology* 22(3) : 565-568.
- Bhat G N, Wani A R & Ansari I A 2004 Screening of mustard *Brassica campestris* L. varieties against mustard aphid, *Lipaphis erysimi* (Kalt.) (Homoptera: Aphididae). *Shashpa* 11 (1) : 79-81.
- Birbal S, Vivek K & Nema M L 2004 Response of mustard, *Brassica juncea* (L.) Czern and Coss. to phosphorus and sulphur levels in rice lowlands. *Journal of Oilseeds Research* 21 (1) : 181-182.
- Bisht N C, Burma P K & Deepak P 2004 Development of 2,4-D-resistant transgenics in Indian oilseed mustard (*Brassica juncea*). *Current Science* 87 (3) : 367-370.
- Boyd N S & van Acker R C 2004 Imbibition response of green foxtail, canola, wild mustard, and wild oat seeds to different osmotic potentials. *Canadian Journal of Botany* 82 (6) : 801-806.
- Charu V, Manju T & Bhatnagar A K 2004 Phenology, seed morphology and analysis of oil samples in *Brassica juncea* and *Argemone mexicana* to evaluate the possibility of field contamination of mustard oilseed and oil. *Brassica* 6 (1/2) : 61-65.
- Chauhan J S, Tyagi M K, Kumar S, Poonam T, Nawaz K, Yadav S K & Singh N B 2004 Development and characterization of low erucic acid/low glucosinolate lines in Indian mustard, *Brassica juncea* (L.) Czern & Coss. *Journal of Oilseeds Research* 21 (1) : 28-33.
- Cui Y, Wang Q, Dong Y, Li H & Christie P 2004 Enhanced uptake of soil Pb and Zn by Indian mustard and winter wheat following combined soil application of elemental sulphur and EDTA. *Plant and Soil* 261 (1/2) : 181-188.
- Dastidar K K G & Patra M M 2004 Character association for seed yield components in Indian mustard (*Brassica juncea* L. Czern and 2 Coss). *Journal of Interacademia* 8 (2) : 155-160.
- Desai A G, Chattopadhyay C, Ranjana A, Kumar A, Meena R L, Meena P D, Sharma K C, Rao M S, Prasad Y G & Ramakrishna Y S 2004 *Brassica juncea* powdery mildew epidemiology and weather-based forecasting models for India-a case study. *Zeitschrift fur Pflanzenkrankheiten und Pflanzenschutz* 111 (5) : 429-438.
- Dhaliwal L K & Hundal S S 2004 Growth dynamics and radiation interception in Indian mustard (*Brassica juncea*). *Indian Journal of Agricultural Sciences* 74 (6) : 321-323.
- Dharam P & Phogat V K 2004 Effect of deep tillage and gypsum application on response of mustard in soil with plough sole. *Journal of the Indian Society of Soil Science* 52 (2) : 202-205.
- Gan Y, Angadi S V, Cutforth H, Potts D, Angadi V V & McDonald C L 2004 Canola and mustard response to short periods of temperature and water stress at different developmental stages. *Canadian Journal of Plant Science* 84 (3) : 697-704.
- Gaurav & Udeaan A S 2004 Comparative efficacy of contact and systemic insecticides against mustard aphid, *Lipaphis erysimi* (Kaltenbach), over the past 14 years in Punjab. *Annals of Biology* 20 (1) : 47-50.
- Ghasolia R P, Asha S & Bhargava A K 2004 *Sclerotinia* rot of Indian mustard in Rajasthan. *Indian Phytopathology* 57 (1) : 76-79.

- Ghosh S, Bhattacharya D & Verma N K 2004 Mustard (*Brassica campestris* L.) cultivation reduces the vesicular-arbuscular mycorrhizal advantage of successive crops. *Mycorrhiza News* 16 (2) : 12-14
- Gong H & Pua E 2004 Identification and expression of genes associated with shoot regeneration from leaf disc explants of mustard (*Brassica juncea*) *in vitro*. *Plant Science* 167 (6) : 1191-1201.
- Goswami P K, Thakral N K, Behl R K & Ramesh K 2004 Heterosis breeding in Indian mustard (*Brassica juncea* L. Czern & Coss.). *Brassica* 6 (1/2) : 47-51.
- Hanur V S, Kirti P B & Chopra V L 2004 The seed-specific oleoresin promoter of *Brassica juncea*: cloning, characterization and identification of the novel and divergent antisense open reading frame. *Journal of Plant Biochemistry and Biotechnology* 13 (2) : 119-122.
- Hingole D G & Mayee C D 2004 Estimation of yield losses due to white rust and powdery mildew diseases of rapeseed mustard. *Journal of Soils and Crops* 14 (1) : 116-120.
- Hussain S, Hazarika G N & Barua P K 2004 Selection indices in Indian rapeseed, *Brassica campestris* L. and mustard, *Brassica juncea* (L.) Czern and Coss. *Journal of Oilseeds Research* 21 (1) : 143-145.
- Indira S, Neelakantan A, Sodhi Y S, Vibha G, Arundhati M, Pradhan A K, Burma P K & Deepak P 2004 Development of high oleic and low linoleic acid transgenics in a zero erucic acid *Brassica juncea* L. (Indian mustard) line by antisense suppression of the *fad2* gene. *Molecular Breeding* 13 (4) : 365-375.
- Ivantsova E A 2004 A biological control agent against pests of mustard. *Zashchita i Karantin Rastenii* 6) : 36.
- Jena D, Jena M K, Pattanayak S K, Sahu D & Mitra G N 2004 Evaluation of compacted phosphate rocks for maize-mustard cropping sequence in a *Typic Haplaquept* of North Eastern Ghat zone. *Journal of the Indian Society of Soil Science* 52 (1) : 80-84.
- Jiang X J, Luo Y M, Liu Q, Liu S L & Zhao Q G 2004 Effects of cadmium on nutrient uptake and translocation by Indian mustard. *Environmental Geochemistry and Health* 26 (2) : 319-324.
- Jyoti G & Saxena M K 2004 Allelopathic interactions of terrestrial plants on mustard seed germination and seedling growth. *Advances in Plant Sciences* 17 (1) : 199-201.
- Kahakachchi C, Boakye H T, Uden P C & Tyson J F 2004 Chromatographic speciation of anionic and neutral selenium compounds in Se-accumulating *Brassica juncea* (Indian mustard) and in selenized yeast. *Journal of Chromatography A* 1054 (1/2) : 303-312.
- Khalid K A 2004 Response of white mustard (*Sinapis alba* L.) plants to calcium superphosphate and phosphorene under calcareous soil conditions. *Arab Universities Journal of Agricultural Sciences* 12 (2) : 735-747.
- Kishwar A, Santha I M, Rajarani & Lodha M L 2004 Cloning of acetyl-CoA carboxylase gene from *Brassica juncea* cv. Pusa Bold. *Indian Journal of Plant Physiology* 9 (2) : 101-104.
- Krishna R, Arun J, Gangwani S A, Burma P K & Deepak P 2004 Mutant acetolactate synthase gene is an efficient *in vitro* selectable marker for the genetic transformation of *Brassica juncea* (oilseed mustard). *Journal of Plant Physiology* 161 (9) : 1079-1083.
- Kumar B V, Rao V P & Reddy B N 2004 Moisture sensitive growth periods and optimal sequencing of evapotranspiration deficits in Indian mustard, *Brassica juncea* (L.) Czern & Coss. *Journal of Oilseeds Research* 21 (1) : 50-54.
- Kumar D & Neetu R 2004 Comparative studies on combining ability and heterosis for yield and yield components in Indian mustard, *Brassica juncea* (L.) Czern & Coss. on normal and saline soils. *Journal of Oilseeds Research* 21 (1) : 24-27.
- Kumar R V, Gupta V K, Ahlawat S P & Datta A 2004 Effect of neem trees on yield of mustard varieties. *Progressive Agriculture* 4 (1) : 13-15.

- Kumari C R, Rao D S K & Obulamma U 2004 Response of mustard, *Brassica juncea* (L.) Czern & Coss. to different land treatments and dates of sowing in sandy clay loam soils. *Journal of Oilseeds Research* 21 (1) : 178-179.
- Lionneton E, Aubert G, Ochatt S & Merah O 2004 Genetic analysis of agronomic and quality traits in mustard (*Brassica juncea*). *Theoretical and Applied Genetics* 109 (4) : 792-799.
- Mahak S & Lallu 2004 Heterosis in relation to combining ability for seed yield and its contributing traits in Indian mustard, *Brassica juncea* (L.) Czern and Coss. *Journal of Oilseeds Research* 21 (1) : 140-142.
- Mankar S M, Deotale R D, Wandile R M & Dighe R S 2004 Post harvest studies in mustard as influenced by foliar application of zinc sulphate. *Journal of Soils and Crops* 14 (1) : 83-86.
- Martynov V V & Khavkin E E 2004 Two homologs of the FLOWERING LOCUS C gene from leaf mustard (*Brassica juncea*). *Russian Journal of Plant Physiology* 51 (2) : 234-240.
- Meena P D, Meena R L, Chattopadhyay C & Kumar A 2004 Identification of critical stage for disease development and biocontrol of *Alternaria* blight of Indian mustard (*Brassica juncea*). *Journal of Phytopathology* 152 (4) : 204-209.
- Nagegowda D A, Bach T J & Chye M 2004 *Brassica juncea* 3-hydroxy-3-methylglutaryl (HMG)-CoA synthase 1: expression and characterization of recombinant wild-type and mutant enzymes. *Biochemical Journal* 383 (3) : 517-527.
- Patel S R, Awasthi A K & Tomar R K S 2004 Assessment of yield losses in mustard (*Brassica juncea* L.) due to mustard aphid (*Lipaphis erysimi* Kalt.) under different thermal environments in Eastern Central India. *Applied Ecology and Environmental Research* 2 (1) : 1-15.
- Pragya S & Renu D 2004 Detection and characterization of calcineurin-like activity in *Brassica juncea* and its activation by low temperature. *Plant Physiology and Biochemistry* 42 (7/8) : 579-584.
- Prasad S K 2004 Modified telescopic adhesive traps for catching alate mustard aphids. *Annals of Plant Protection Sciences* 12 (1) : 211-213.
- Premi O P, Arvind K, Manoj K & Sinsinwar B S 2004 Effect of organics on Indian mustard, *Brassica juncea* Czern & Coss. *Journal of Oilseeds Research* 21 (1) : 180.
- Qadir S, Qureshi M I, Javed S & Abidin M Z 2004 Genotypic variation in phytoremediation potential of *Brassica juncea* cultivars exposed to Cd stress. *Plant Science* 167 (5) : 1171-1181.
- Rajbir Y & Pankaj S 2004 Genetic diversity for white rust (*Albugo candida*) resistance in rapeseed-mustard. *Indian Journal of Agricultural Sciences* 74 (5) : 281-283.
- Rajeev G & Monika T 2004 Effect of intercropping on the incidence of *Lipaphis erysimi* in mustard. *Annals of Plant Protection Sciences* 12 (2) : 435-436.
- Rashid M A & Anwar M M 2004 Profitability and resource use efficiency of mustard crop in selected areas of Bangladesh. *Economic Affairs Calcutta* 49 (2) : 87-93.
- Reza M W, Biswas A K & Roy K 2004 Seasonal abundance of *Lipaphis erysimi* (Kalt.) population on mustard. *Uttar Pradesh Journal of Zoology* 24 (2) : 129-132.
- Rup P J, Sohal S K, Kaur G & Pal S 2004 Evaluation of the possible role of five enzymes in the metabolism of IBA in mustard aphid, *Lipaphis erysimi* (Kalt.). *Journal of Environmental Biology* 25 (2) : 167-171.
- Sharma S P, Sharma G S & Ranwah B R 2004 Combining ability analysis in Indian mustard, *Brassica juncea* (L.) Czern and Coss. *Journal of Oilseeds Research* 21 (1) : 137-139.
- Singh B P, Om P & Rajesh K 2000 Intercropping of lentil (*Lens culinaris* Medik) with Indian mustard (*Brassica juncea* L.) and safflower (*Carthamus tinctorius* L.) under dryland conditions. *Indian Journal of Soil Conservation* 28 (2) : 126-130.

- Singh D P 2004 The effect of inorganic fertilizers and weather parameters on *Alternaria* blight of rapeseed-mustard under screen house conditions. *Annals of Agri Bio Research* 9 (2) : 229-234.
- Singh D P 2004 Correlation matrix and regression equation for *Alternaria* blight progression (lesion size) on rapeseed-mustard under screen house and field conditions. *Annals of Agri Bio Research* 9 (2) : 235-238.
- Sinsinwar B S, Arvind K, Premi O P & Fateh S 2004 Production potential and nitrogen requirement of Indian mustard, *Brassica juncea* (L.) Czern & Coss. in different crop sequences under brackish water. *Journal of Oilseeds Research* 21 (1) : 175-177.
- Smith H J, Gray F A & Koch D W 2004 Reproduction of *Heterodera schachtii* Schmidt on resistant mustard, radish, and sugar beet cultivars. *Journal of Nematology* 36 (2) : 123-130.
- Subash C, Tripathi H N & Tripathi A K 2004 Phosphorus requirement of gram (*Cicer arietinum*)-Indian mustard (*Brassica juncea*) intercropping system under irrigated conditions. *Indian Journal of Agricultural Sciences* 74 (4) : 207-209.
- Sudan R S, Singh S P & Kashyap S C 2004 Path analysis of yield and its components in Indian mustard [*Brassica juncea* (L.) Czern and Coss]. *Annals of Agri Bio Research* 9 (2) : 119-122.
- Varshney J G & Arya R L 2004 Effect of integrated nutrients use and weed-control methods on sole gram (*Cicer arietinum*) and gram + Indian mustard (*Brassica juncea*) intercropping system. *Indian Journal of Agricultural Sciences* 74 (3) : 121-125.
- Vikrant, Verma B S, Vishwas R, Singh R P & Singh B P 2004 Influence of genotypes and nitrogen on the comparative economic analysis of mustard seed and its products. *National Journal of Plant Improvement* 6 (1) : 7-8.
- Vinod K, Arvind K, Premi O P & Manoj K 2004 An expert tool for fertilizer management of rapeseed-mustard. *Journal of Oilseeds Research* 21 (1) : 130-133.
- Wang S, Yang Z, Yang H, Lu B, Li S & Lu Y 2004 Copper-induced stress and antioxidative responses in roots of *Brassica juncea* L. *Botanical Bulletin of Academia Sinica* 45 (3) : 203-212.
- Wu L H, Li H, Luo Y M & Christie P 2004 Nutrients can enhance phytoremediation of copper-polluted soil by Indian mustard. *Environmental Geochemistry and Health* 26 (2) : 331-335.
- Yadav C B, Chauhan Y S & Kumar K 2004 Heterosis for seed yield and its components in Indian mustard (*Brassica juncea* L. Czern & Coss). *Journal of Maharashtra Agricultural Universities* 29 (2) : 217-218.
- Yanai J, Mabuchi N, Moritsuka N & Kosaki T 2004 Distribution and forms of cadmium in the rhizosphere of *Brassica juncea* in Cd-contaminated soils and implications for phytoremediation. *Soil Science and Plant Nutrition* 50 (3) : 423-430.
- Nutmeg (*Myristica fragrans* Houtt.)**
- Haldankar P M, Joshi G D, Jamadagni B M & Patil B P 2004 Non destructive estimation of leaf area in nutmeg (*Myristica fragrans* Houtt.). *Journal of Maharashtra Agricultural Universities* 29 (2) : 146-148.
- Haldankar P M, Joshi G D, Jamadani B M & Patil B P 2004 Association of tree architectural characters with yield in nutmeg (*Myristica fragrans* Houtt.). *Journal of Maharashtra Agricultural Universities* 29 (2) : 148-151.
- Haldankar P M, Joshi G D, Patil B P & Haldavnekar P C 2004 Studies on variability of fruit characters in nutmeg (*Myristica fragrans* Houtt.). *Journal of Maharashtra Agricultural Universities* 29 (2) : 152-154.

Parsley (*Petroselinum crispum* Miller)

- Petropoulos S A, Daferera D, Akoumianakis C A, Passam H C & Polissiou M G 2004 The effect of sowing date and growth stage on the essential oil composition of three types of parsley (*Petroselinum crispum*). *Journal of the Science of Food and Agriculture* 84 (12) : 1606-1610.
- Turck F, Zhou A & Somssich I E 2004 Stimulus-dependent, promoter-specific binding of transcription factor WRKY1 to its native promoter and the defense-related gene PcPR1-1 in parsley. *Plant Cell* 16 (10) : 2573-2585.
- Winiarska S & Koota E 2004 The influence of the method of transplant production and plant spacing on yielding of leafy type of parsley. *Folia Universitatis Agriculturae Stetinensis, Agricultura* 95 : 419-423.

Rosemary (*Rosemarinus officinalis* L.)

- Abutbul S, Golan-Goldhirsh A, Barazani O & Zilberg D 2004 Use of *Rosmarinus officinalis* as a treatment against *Streptococcus iniae* in tilapia (*Oreochromis* sp.). *Aquaculture* 238 (1/4) : 97-105.
- Luis Crego A, Ibanez E, Garcia E, Rodriguez de Pablos R, Javier Senorans F, Reglero G & Cifuentes A 2004 Capillary electrophoresis separation of rosemary antioxidants from subcritical water extracts. *European Food Research and Technology* 219 (5) : 549-555.
- Marcincak S, Nagy J, Popelka P & Hussein K 2004 Effect of rosemary and vitamin E supplementation in diet on growth and meat quality of broiler chickens. *Slovensky Veterinarsky Casopis* 29 (3) : 37-39.
- Saito Y, Shiga A, Yoshida Y, Furuhashi T, Fujita Y & Niki E 2004 Effects of a novel gaseous antioxidative system containing a rosemary extract on the oxidation induced by nitrogen dioxide and ultraviolet radiation. *Bioscience, Biotechnology and Biochemistry* 68 (4) : 781-786.
- Sanchez Blanco M J, Ferrandez T, Navarro A, Banon S & Alarcon J J 2004 Effects of irrigation and air humidity preconditioning on water relations, growth and survival of *Rosmarinus officinalis* plants during and after transplanting. *Journal of Plant Physiology* 161 (10) : 1133-1142.
- Wang H, Provan G J & Helliwell K 2004 Determination of rosmarinic acid and caffeic acid in aromatic herbs by HPLC. *Food Chemistry* 87 (2) : 307-311.

Saffron (*Crocus sativus* L.)

- Abdollah M 2004 Experimental findings of production and ecophysiological aspects of saffron (*Crocus sativus* L.). *Acta Horticulturae* 650 : 195-200.
- Abdollah M 2004 Evaluation of saffron (*Crocus sativus* L.) yield components. *Acta Horticulturae* 650 : 211-214.
- Abdullaev F I 2004 Antitumor effect of saffron (*Crocus sativus* L.): overview and perspectives. *Acta Horticulturae* 650 : 491-499.
- Alvarez Orti M, Gomez Gomez L, Rubio A, Escibano J, Pardo J, Jimenez F & Fernandez J A 2004 Development and gene expression in saffron corms. *Acta Horticulturae* 650 : 141-153.
- Alvarez Orti M, Schwarzacher T, Rubio A, Blazquez S, Piqueras A, Fernandez J A & Heslop Harrison P 2004 Studies on expression of genes involved in somatic embryogenesis and storage protein accumulation in saffron crocus (*Crocus sativus* L.). *Acta Horticulturae* 650 : 155-163.
- Behboodi B S & Leili S 2004 The morphological study of amyloplast distribution in *Crocus sativus* L. fibrous roots. *Acta Horticulturae* 650 : 49-54.

- Blazquez S, Olmos E, Hernandez J A, Hellin E, Fernandez J A & Piqueras A 2004 Somatic embryogenesis in saffron (*Crocus sativus* L.): morphological differentiation and the role of the antioxidant enzymatic system. *Acta Horticulturae* 650 : 261-267.
- Blazquez S, Piqueras A, Serna M D, Casas J L & Fernandez J A 2004 Somatic embryogenesis in saffron: optimisation through temporary immersion and polyamine metabolism. *Acta Horticulturae* 650 : 269-276.
- Caballero Ortega H, Pereda Miranda R, Riveron Negrete L, Hernandez J M, Medecigo Rios M, Castillo Villanueva A & Abdullaev F I 2004 Chemical composition of saffron (*Crocus sativus* L.) from four countries. *Acta Horticulturae* 650 : 321-326.
- Caiola M G 2004 Saffron reproductive biology. *Acta Horticulturae* 650 : 25-37.
- Caiola M G, Caputo P & Zanier R 2004 RAPD analysis in *Crocus sativus* L. accessions and related *Crocus* species. *Biologia Plantarum* 48 (3) : 375-380.
- Carmona M & Alonso G L 2004 A new look at saffron: mistaken beliefs. *Acta Horticulturae* 650 : 373-391.
- Carmona M, Zalacain A, Llanos Rodriguez M, Rosario Salinas M & Alonso G L 2004 Comparison of different extraction procedures and HPLC methods to detect crocins in saffron. *Acta Horticulturae* 650 : 303-306.
- Castillo R, Gomez Gomez L & Fernandez J A 2004 Characterization of a class I chitinase from saffron (*Crocus sativus* L.). *Acta Horticulturae* 650 : 165-171.
- Cuko L, Mitsopoulou T & Tsimidou M Z 2004 A rapid procedure for the evaluation of saffron colouring strength using tristimulus colorimetry. *Acta Horticulturae* 650 : 297-301.
- Ezzatollah K, Keyhani J, Mahnaz H, Lila G & Farnoosh A 2004 Cultivation techniques, morphology and enzymatic properties of *Crocus sativus* L. *Acta Horticulturae* 650 : 227-246.
- Fekrat H 2004 The application of crocin and saffron ethanol extractable components in formulation of health care and beauty care products. *Acta Horticulturae* 650 : 365-368.
- Fernandez J A & Abdullaev F 2004 Proceedings of the 1st International Symposium on Saffron Biology and Biotechnology, Albacete, Spain, 22-25 October 2003. *Acta Horticulturae* 650 : 499.
- Ferrara L, Montesano D & Naviglio D 2004 Extraction and biological activity of *Isatis tinctoria* and *Crocus sativus*. *Ingredienti Alimentari* 3 (4) : 14-18.
- Ghamsari L & Ezzatollah K 2004 The distinctive features of ascorbate peroxidase in dormant *Crocus sativus* L. corm. *Acta Horticulturae* 650 : 119-125.
- Ghoddsi H B & Glatz B 2004 Decontamination of saffron (*Crocus sativus* L.) by electron beam irradiation. *Acta Horticulturae* 650 : 339-344.
- Gul Z, Wani S A, Talat A & Zeerak N A 2004 Colchicine induced variability in saffron. *Acta Horticulturae* 650 : 277-280.
- Helfer S 2004 How can anthropology contribute to the expansion of saffron production? *Acta Horticulturae* 650 : 393-396.
- Hernandez J M, Abdullaev F I, Caballero Ortega H, Riveron Negrete L, Perez Lopez I, Medecigo Rios M, Castillo Villanueva A & Espinosa Aguirre J J 2004 Evaluation of the mutagenic and antimutagenic activities of saffron. *Acta Horticulturae* 650 : 471-475.
- Keyhani J, Ezzatollah K & Naghmeh S 2004 Expression of L lactate dehydrogenase isoenzymes during root development in *Crocus sativus* L. corm. *Acta Horticulturae* 650 : 109-117.
- Khan I A 2004 Induced mutagenic variability in saffron (*Crocus sativus* L.). *Acta Horticulturae* 650 : 281-283.
- Koocheki A A 2004 Indigenous knowledge in agriculture with particular reference to saffron production in Iran. *Acta Horticulturae* 650 : 175-182.

- Mahnaz H & Ezzatollah K 2004 Detection and kinetic properties of alcohol dehydrogenase in dormant corm of *Crocus sativus* L. *Acta Horticulturae* 650 : 127-139.
- Maryam K, Behboodi B S & Hassan E 2004 Development and contraction of contractile roots in *Crocus sativus*. *Acta Horticulturae* 650 : 55-58.
- Maryam K, Behboodi B S & Hassan E 2004 Modality of the contractile root formation in cultivated saffron, in field condition and in tissue culture. *Acta Horticulturae* 650 : 247-251.
- Mitsopoulou T & Tsimidou M Z 2004 Morphological characteristics of Greek saffron stigmas from Kozani Region. *Acta Horticulturae* 650 : 189-193.
- Mohammad H, Behzad S & Aghamiri S A 2004 Influence of foliar fertilization on yield of saffron (*Crocus sativus* L.). *Acta Horticulturae* 650 : 207-209.
- Molina R V, Garcia Luis A, Coll V, Ferrer C, Valero M, Navarro Y & Guardiola J L 2004 Flower formation in the saffron crocus (*Crocus sativus* L.). The role of temperature. *Acta Horticulturae* 650 : 39-47.
- Molina R V, Garcia Luis A, Valero M, Navarro Y & Guardiola J L 2004 Extending the harvest period of saffron. *Acta Horticulturae* 650 : 219-225.
- Nejad M H 2004 Evaluation of quality characteristics and microbial contamination of saffron samples dried by microwave. *Acta Horticulturae* 650 : 345-353.
- Ordoudi S A & Tsimidou M Z 2004 Detection of artificial red colorants in saffron using UV Vis spectrometry and tristimulus colorimetry. *Acta Horticulturae* 650 : 331-338.
- Pardo J, Fernandez J A & Gomez G 2004 Development of molecular markers for origin determination in saffron. *Acta Horticulturae* 650 : 95-98.
- Parviz E, Yadollahi A A & Maibodi A M M 2004 Productivity, growth and quality attributes of 10 Iranian saffron accessions under climatic conditions of Chahar Mahal Bakhtiari, Central Iran. *Acta Horticulturae* 650 : 183-188.
- Pulido L, Gattuso S & Gattuso M 2004 Comparative morphoanatomical study of three species pertaining to the *Crocus* genus: *C. nevadensis*, *C. nudiflorus* and *C. sativus*. Differentiating characteristics. *Acta Horticulturae* 650 : 59-64.
- Qadir R, Reza M & Ali S 2004 Extraction and evaluation of saffron oleoresin. *Acta Horticulturae* 650 : 361-364.
- Riveron Negrete L, Camacho Carranza R, Caballero Ortega H, Hernandez J M, Medecigo Rios M, Castillo Villanueva A, Perez Lopez I, Espinosa Aguirre J J & Abdullaev F I 2004 Additive inhibitory effect of saffron in combination with sodium selenite on tumor cells. *Acta Horticulturae* 650 : 477-484.
- Rohmeder J 2004 Saffron needs marketing. *Acta Horticulturae* 650 : 397-398.
- Rosario Haro M d, Escolar D, Bueno C & Ayuso J 2004 Kinetic study of the photodecoloration of the saffron. *Acta Horticulturae* 650 : 313-319.
- Roya K 2004 Plantlet regeneration *via* somatic embryogenesis in four species of *Crocus*. *Acta Horticulturae* 650 : 253-259.
- Rubio A, Fernandez J A & Gomez G 2004 Biosynthesis of carotenoids in saffron. *Acta Horticulturae* 650 : 99-107.
- Rubio A, Fernandez Nohales P, Gerwig G J, Escibano J, Kamerling J P & Fernandez J A 2004 Presence of bioactive glycoconjugates on different stages of saffron corm. *Acta Horticulturae* 650 : 485-489.
- Rubio Moraga A, Fernandez Nohales P, Fernandez Perez J A & Gomez G 2004 Glucosylation of the saffron apocarotenoid crocetin by a glucosyltransferase isolated from *Crocus sativus* stigmas. *Planta* 219 (6) : 955-966.
- Saeed R & Majid F 2004 The effect of nitrogen fertilizers (urea, sulfur coated urea) with manure on the saffron yield. *Acta Horticulturae* 650 : 201-205.

- Saito H 2004 The therapeutic and prophylactic effects of *Crocus sativus* L. (saffron) in Senile Dementia. *Acta Horticulturae* 650 : 407-422.
- Shariati Moghaddam A 2004 New saffron products and food technology. *Acta Horticulturae* 650 : 369-371.
- Tang L, Xu Y, Zhao T, Yan F, Xu S & Chen F 2004 Transient expression of gus gene via particle bombardment in *Crocus sativus* L. *Journal of Beijing Forestry University* 26 (4) : 35-38.
- Tarantilis P A & Polissiou M G 2004 Chemical analysis and antitumor activity of natural and semi natural carotenoids of saffron. *Acta Horticulturae* 650 : 447-461.
- Thiercelin J M 2004 Room table: industrial perspectives for saffron. *Acta Horticulturae* 650 : 399-404.
- Trujillo Jimenez F, Garcia Lopez P, Garcia Carranca A & Abdullaev F I 2004 Effect of saffron on the viability of normal and malignant human cells *in vitro*. *Acta Horticulturae* 650 : 463-469.
- Tsimidou M Z 2004 Saffron: on the contribution of colorants to its commercial quality. *Acta Horticulturae* 650 : 293-295.
- Vurdu H 2004 Room table: agronomical and biotechnological approaches for saffron improvement. *Acta Horticulturae* 650 : 285-290.
- Zalacain A, Blazquez I, Diaz Plaza E M, Carmona M & Alonso G L 2004 Improved conditions to extract exogenous yellow water soluble colorants added to saffron avoiding crocetin esters interferences. *Acta Horticulturae* 650 : 307-311.
- Zalacain A, Diaz Plaza E M, Blazquez I, Carmona M & Alonso G L 2004 FT NIR spectrometry approach for determining saffron origin. *Acta Horticulturae* 650 : 327-329.
- Zubor A A, Suranyi G, Gyori Z, Borbely G & Prokisch J 2004 Molecular biological approach of the systematics of *Crocus sativus* L. and its allies. *Acta Horticulturae* 650 : 85-93.

Tamarind (*Tamarindus indica* L.)

- El Siddig K, Inanaga S, Ali A M, An P, Gebauer J & Ebert G 2004 Response of *Tamarindus indica* L. to iso-osmotic solutions of NaCl and PEG during germination. *Journal of Applied Botany and Food Quality* 78 (1) : 1-4.
- Parvez S S, Parvez M M, Fujii Y & Gemma H 2004 Differential allelopathic expression of bark and seed of *Tamarindus indica* L. *Plant Growth Regulation* 42 (3) : 245-252.
- Pino J A, Marbot R & Vazquez C 2004 Volatile components of tamarind (*Tamarindus indica* L.) grown in Cuba. *Journal of Essential Oil Research* 16 (4) : 318-320.
- Treewannakul P, Chumjai P, Rangsi-path S, Udomsade J, Ponortong S, Keowsonthi C, Choeysonbut M & Sangtaewtim S 2004 Knowledge transfer: sweet tamarind production and community business of sweet tamarind. In: *Proceedings of the 42nd Kasetsart University Annual Conference, Kasetsart, Thailand, 3-6 February 2004* : 611-618.

Thyme (*Thymus vulgaris* L.)

- Atti Santos A C, Pansera M R, Paroul N, Atti Serafini L & Moyna P 2004 Seasonal variation of essential oil yield and composition of *Thymus vulgaris* L. (Lamiaceae) from South Brazil. *Journal of Essential Oil Research* 16 (4) : 294-295.
- Gonzalez Benito M E, Albert M J, Iriondo J M, Varela F & Perez Garcia F 2004 Seed germination of four thyme species after short term storage at low temperatures at several moisture contents. *Seed Science and Technology* 32 (1) : 247-254.
- Kitajima J, Ishikawa T & Urabe A 2004 A new hydroxyjasnone glucoside and its related compounds from the leaf of thyme. *Chemical and Pharmaceutical Bulletin* 52 (8) : 1013-1014.

- Machowicz Stefaniak Z, Zalewska E & Zimowska B 2004 Fungi colonizing above-ground parts of lemon balm (*Melissa officinalis* L.) and thyme (*Thymus vulgaris* L.) cultivated in the Lublin Region. *Folia Universitatis Agriculturae Stetinensis, Agricultura* 95 : 229-232.
- Minuto A, Pensa P, Minuto G & Garibaldi A 2004 *Sclerotinia sclerotiorum* agent of stem rot on thyme (*Thymus x Citriodorus*) and common sage (*Salvia officinalis*). *Informatore Fitopatologico* 54 (7/8) : 36-39.

Turmeric (*Curcuma longa* L.)

- Ali A, Munawar A & Siddiqui F A 2004 *In vitro* propagation of turmeric, *Curcuma longa* L. *International Journal of Biology and Biotechnology* 1 (4) : 511-518.
- Bisht J K, Chandra S & Singh R D 2004 Performance of taro (*Colocasia esculenta*) and turmeric (*Curcuma longa*) under fodder trees in a agri-silvi-horti system of western Himalaya. *Indian Journal of Agricultural Sciences* 74 (6) : 291-294.
- Daniel S, Limson J L, Dairam A, Watkins G M & Daya S 2004 Through metal binding, curcumin protects against lead and cadmium induced lipid peroxidation in rat brain homogenates and against lead induced tissue damage in rat brain. *Journal of Inorganic Biochemistry* 98 (2) : 266-275.
- Hans B S & Bhandari K S 2004 Biological activities of *Curcuma longa* L. *Pashudhan* 19 (1) : 8.
- Kumar P S S, Geetha S A, Rajarajan A, Savithri P & Raj S A 2004 Evaluation of Zn use efficiency of Zn enriched organic manures and zinc solubilizing bacteria in turmeric crop and distribution of applied Zn among various Zn fractions of the soil using ⁶⁵Zn radiotracer technique. *Research on Crops* 5 (1) : 118-125.
- Mohan E, Melanta K R, Guruprasad T R, Herle P S, Gowda N A J & Naik C M 2004 Effects of graded levels of nitrogen and biofertilizers on growth, yield and quality in turmeric (*Curcuma domestica* Val.) cv. D K Local. *Environment and Ecology* 22 (3) : 715-719.
- Naik R S, Mujumdar A M & Saroj G 2004 Protection of liver cells from ethanol cytotoxicity by curcumin in liver slice culture *in vitro*. *Journal of Ethnopharmacology* 95 (1) : 31-37.
- Odot J, Albert P, Carlier A, Tarpin M, Devy J & Madoulet C 2004 *In vitro* and *in vivo* anti-tumoral effect of curcumin against melanoma cells. *International Journal of Cancer* 111 (3) : 381-387.
- Patil P R, Lohar N S, Bhingardev S D & Bondar V S 2004 Economics of production of turmeric in Sangli district of western Maharashtra. *Indian Journal of Arecanut, Spices and Medicinal Plants* 6 (1) : 9-12.
- Rao A M, Rao P V, Reddy Y N & Ganesh M 2004 Variability and correlation studies in turmeric (*Curcuma longa* L.). *Crop Research, Hisar* 27 (2/3) : 275-281.
- Song Y L, Sonawane N D, Salinas D, Qian L M, Pedemonte N, Galiotta L J V & Verkman A S 2004 Evidence against the rescue of defective Delta F508-CFTR cellular processing by curcumin in cell culture and mouse models. *Journal of Biological Chemistry* 279 (39) : 40629-40633.

Vanilla (*Vanilla planifolia* Andrews)

- Grisoni M, Davidson F, Hyrondelle C, Farreyrol K, Caruana M L & Pearson M 2004 Nature, incidence, and symptomatology of viruses infecting *Vanilla tahitensis* in French Polynesia. *Plant Disease* 88 (2) : 119-124.
- Madan M S 2004 Estimation of cost of cultivation in spices-vanilla. *Indian Journal of Arecanut, Spices and Medicinal Plants* 6 (1) : 28-38.
- Velankar M H & Heble M R 2004 Biotransformation of externally added vanillin related compounds by multiple shoot cultures of *Vanilla planifolia* L. *Journal of Plant Biochemistry and Biotechnology* 13 (2) : 153-156.