

Publications

Publications for the year 2002 are classified in the following manner:

- J Papers describing original research in refereed journals.
- R Critical reviews in journals, book chapters and reviews in books - providing each has been edited externally.
- P Published proceedings of contributions to conferences or learned societies (including published abstracts).
- T Technical reports, other publications.
- O Popular articles, other publications.

Abbott, J.C., Barakate, A., Pinçon, G., Legrand, M., Lapierre, C., Mila, I., Schuch, W. & Halpin, C. 2002. Simultaneous suppression of multiple genes by single transgenes. Downregulation of three unrelated lignin biosynthetic genes in tobacco. *Plant Physiology* 128, 844-853. J

Armstrong, M., Whisson, S.C. & Birch, P.R.J. 2002. Cloning of avirulence genes from *Phytophthora infestans*. *Molecular Biology of Fungal Pathogens XIII*, Gregynog, Wales 17-19 July, 2002. P

Avrova, A.O., Hyman, L.J., Toth, R.L. & Toth, I.K. 2002. Application of AFLP fingerprinting for taxonomy and identification of the soft rot bacteria *Erwinia carotovora* and *Erwinia chrysanthemi*. *Applied and Environmental Microbiology* 68, 1499-1508. J

Avrova, A.O., Venter, E., Birch, P.R.J. & Whisson, S.C. 2002. Novel in planta- upregulated transcripts from *Phytophthora infestans* identified by cDNA-AFLP. *GILB'02 conference Late blight: Managing the global threat*, Hamburg, Germany, 2002, p.13. P

Avrova, A.O., Venter, E., Birch, P.R.J. & Whisson, S.C. 2002. Quantifying differential gene expression in *Phytophthora infestans* prior to and during the biotrophic stage of potato infection. *Molecular Biology of Fungal Pathogens XIII*, Gregynog, Wales, July 17-19, 2002. P

Aziz, N. & Machray, G.C. 2002. Efficient male germ line transformation for transgenic tobacco production without selection. *Plant Molecular Biology* 51, 203-211. J

Baumgartner, P., Raemaekers, R., Durieux, A., Gatehouse, A., Davies, H.V. & Taylor, M.A. 2002. Large-scale production, purification and characterisation of recombinant *Phaseolus vulgaris* phytohemagglutinin E-form expressed in the methylotrophic yeast *Pichia pastoris*. *Protein Expression and Purification* 26, 394-405. J

Begg, G., Hawes, C., Marshall, B., D'Hertefeldt, T., Ramsay, G., Young, M.W., Squire, G.R. & Wright, G.M. 2002. Dispersal and persistence of feral oilseed rape - mechanisms and consequences. *ESF Working Group Meeting: Estimating and Managing Geneflow and Dispersal in GM Crops*, Lille, France, 2-3 July 2002. P

Bell, K.S., Avrova, A.O., Holeva, M.C., Cardle, L., Morris, W., DeJong, W., Toth, I.K., Waugh, R., Bryan, G.J. & Birch, P.R.J. 2002. Sample sequencing of a selected region of the genome of *Erwinia carotovora* subsp. *atroseptica* reveals candidate phytopathogenicity genes and allows comparison with *Escherichia coli*. *Microbiology* 148, 1367-1378. J

Bengough, A.G. 2002. Plant Roots! The Hidden Half (Book Review). *Experimental Agriculture* 2002. O

Bennett, S.J., Hayward, M.D. & Marshall, D.F. 2002. Electrophoretic variation as a measure of species differentia-

tion between four species of the genus *Lolium*. *Genetic Resources and Crop Evolution* 49, 59-66. J

Birch, A.N.E., Jones, A.T., Fenton, B., Malloch, G., Geoghegan, I., Gordon, S.C., Hillier, J. & Begg, G. 2002. Resistance-breaking raspberry aphid biotypes: Constraints to sustainable control through plant breeding. *Acta Horticulturae* 585, 315-317. P

Birch, A.N.E., Jones, A.T., Fenton, B., Malloch, G., Geoghegan, I., Gordon, S.C., Hillier, J. & Begg, G. 2002. Resistance-breaking raspberry aphid biotypes: Constraints to sustainable control through plant breeding and integrated crop management. *Proceedings of IOBC Host Plant Resistance Workshop*, Sweden, 2001. P

Birch, A.N.E., Jones, A.T., Fenton, B., Malloch, G., Geoghegan, I., Gordon, S.C., Hillier, J. & Begg, G. 2002. Resistance-breaking raspberry aphid biotypes: a challenge for plant breeding and biotechnology. *Proceedings of IOBC Soft Fruit IPM Meeting*, Dundee, 2001. P

Birch, A.N.E., Geoghegan, I.E., Griffiths, D.W. & McNicol, J.W. 2002. The effect of genetic transformations for pest resistance on foliar solanidine-based glycoalkaloids of potato (*Solanum tuberosum*). *Annals of Applied Biology* 140, 143-149. J

Blackwell, A. 2002. Culicoides spp. Biting midge data sheet. *Animal Health and Production Compendium*. CAB International, Wallingford, CD-ROM. R

Blanch, E.W., Robinson, D.J., Hecht, L., Syme, C.D., Nielsen, K. & Barron, L.D. 2002. Solution structures of *Potato virus X* and *Narcissus mosaic virus* from Raman optical activity. *Journal of General Virology* 83, 241-246. J

Blanco, P., Thow, G., Simpson, C.G., Villa, T.G. & Williamson, B. 2002. Mutagenesis of key amino acids alters activity of a *Saccharomyces cerevisiae* endo-polygalacturonase expressed in *Pichia pastoris*. *FEMS Microbiology Letters* 210, 187-192. J

Blank, I., Pascual, E.C., Devaud, S., Fay, L.B., Stadler, R.H., Yeretzian, C. & Goodman, B.A. 2002. Degradation of the coffee flavour compound furfuryl mercaptan in model Fenton-type reaction systems. *Journal of Agricultural and Food Chemistry* 50, 2356-2364. J

Blok, V.C., Wishart, J., Fargette, M., Berthier, K. & Phillips, M.S. 2002. Mitochondrial DNA differences distinguishing *Meloidogyne mayaguensis* from the major species of tropical root-knot nematodes. *Nematology* 4, 773-781. J

Blok, V.C. 2002. Molecular approaches to differentiate and understand the pathogenicity of plant parasitic nematodes. *COST 850 'Biocontrol Symbioses'*, Puerto de la Cruz, Tenerife, Canary Islands, 14-15 June 2002. P

- Blok, V.C.** 2002. Progress in developing nematode diagnostics. *Nematology* 4, 126. P
- Boag, B., Neilson, R. & Lello, J.** 2002. Benefits of integrating parasitic data from wildlife and domestic animals. *Proceedings of the 10th International Congress of Parasitology*, Vancouver, Canada, 3-10 August 2002. P
- Boag, B., Orr, A. & Neilson, R.** 2002. Spatial distribution of the New Zealand flatworm and its relationship with earthworm populations in fields in western Scotland. *Proceedings of the 7th International Symposium on Earthworm Ecology*, Cardiff, Wales, 1-6 September 2002. P
- Boswell, G., Jacobs, H., Davidson, F.A., Gadd, G.M. & Ritz, K.** 2002. Functional consequences of nutrient translocation in mycelial fungi. *Journal of Theoretical Biology* 217, 459-477. J
- Boswell, G.P., Jacobs, H., Davidson, F.A., Gadd, G.M. & Ritz, K.** 2002. A positive numerical scheme for a mixed-type partial differential equation model for fungal growth. *Applied Mathematics and Computation* 138, 321-340. J
- Botting, C.H., Davidson, N.E., Griffiths, D.W., Bennett, R.N. & Botting, N.P.** 2002. Analysis of intact glucosinolates by MALDI-TOF mass spectrometry. *Journal of Agricultural and Food Chemistry* 50, 983-988. J
- Boutsika, K., Phillips, M.S., Brown, D.J.F. & Blok, V.C.** 2002. Phylogenetic relationships between *Paratrichodorus* and *Trichodorus* species (Nematoda: Trichodoridae). *Nematology* 4, 166-167 P
- Bradford, M.A., Jones, T.H., Bardgett, R.D., Black, H.I.J., Boag, B., Bonkowski, M., Cook, R., Eggers, T., Gange, A.C., Grayston, S.J., Kandeler, E., McCaig, A.E., Newington, J.E., Prosser, J.I., Setälä, H., Staddon, P.L., Tordoff, G.M., Tscherko, D. & Lawton, J.H.** 2002. Impacts of soil faunal community composition on model grassland ecosystems. *Science* 298, 615-618. J
- Bradshaw, J.E., Gemmell, D.J., Gowers, S. & Wilson, R.N.** 2002. Turnip (*Brassica rapa* L. ssp. *rapifera* Metzg.) population improvement and cultivar production. *Plant Breeding* 121, 301-306. J
- Bragard, C., Delfosse, P., Reddy, A.S., Doucet, D., Legreve, A., Miller, J.S. & Mayo, M.A.** 2002. RT-PCR for a broad detection of pecluviruses. *Abstracts of the IWGPVFV*, Zurich, Switzerland, July 22-25 2002. P
- Brandizzi, F., Snapp, E.L., Roberts, A.G., Lippincott-Schwartz, J. & Hawes, C.** 2002. Membrane protein transport between the endoplasmic reticulum and the Golgi in tobacco leaves is energy dependent but cytoskeleton independent; evidence from selective photobleaching. *The Plant Cell* 14, 1293-1309. J
- Brennan, R.M., Jorgensen, L., Woodhead, M. & Russell, J.R.** 2002. Development and characterisation of SSR markers in *Ribes* sp. *Molecular Ecology Notes* 2, 327-330. J
- Brennan, R.M., Gordon, S.L. & Williamson, B.** 2002. Proceedings of 8th International Rubus and Ribes Symposium, International Society for Horticultural Science, Leuven, The Netherlands.. *Acta Horticulturae* 585 P
- Brown, J.W.S., Shaw, P. & Marshall, D.F.** 2002. Plant snoRNA database website http://www.scri.sari.ac.uk/plant_snoRNA.T
- Brown, J.W.S., Echeverria, M. & Qu, L.-H.** 2002. Plant snoRNA genes: functional evolution and new modes of gene expression. *Trends in Plant Science* 8, 42-49. J
- Brown, J.W.S., Simpson, C.G., Thow, G., Clark, G.P., Jennings, N., Medina-Escobar, N., Haupt, S., Chapman, S.N. & Oparka, K.J.** 2002. Splicing signals and factors in plant intron removal. *Biochemical Society Transactions* 30, 146-149. J
- Bryan, G.J., McLean, K., Bradshaw, J.E., De Jong, W.S., Phillips, M.S., Castelli, L. & Waugh, R.** 2002. Mapping QTLs for resistance to the cyst nematode *Globodera pallida* derived from the wild potato species *Solanum vernei*. *Theoretical and Applied Genetics* 105, 68-77. J
- Canto, T. & Palukaitis, P.** 2002. A novel *N* gene-associated, temperature independent resistance to the movement of TMV vectors neutralized by a CMV RNA 1 transgene. *Journal of Virology* 76, 12908-12916. J
- Canto, T., Cillo, F. & Palukaitis, P.** 2002. Generation of siRNAs by T-DNA sequences does not require active transcription nor homology to sequences in the plant. *Molecular Plant-Microbe Interactions* 15, 1137-1146. J
- Canto, T., Cillo, F. & Palukaitis, P.** 2002. Transgene silencing induced by ectopic DNA with homology to the transgene non-coding regions. *IUMS XIIth International Congress of Virology*, Paris, France, 2002, p. 15. P
- Carette, J.E., van Lent, J., MacFarlane, S.A., Wellink, J. & van Kamen, A.** 2002. Cowpea mosaic virus replication proteins 32K and 60K target to and change the morphology of endoplasmic reticulum membranes. *Journal of Virology* 76, 6293-6301. J
- Castelli, L., Ramsay, G., Bryan, G.J., Waugh, R., Neilson, S.J. & Phillips, M.S.** 2002. Novel sources of resistance to the potato cyst nematodes *Globodera pallida* and *G. rostochiensis*. *AAB Nematology Meeting*, Linnaean Society, London, December 2001. P
- Choi, S.K., Yoon, J.Y., Ryu, K.H., Choi, J.K., Palukaitis, P. & Park, W.M.** 2002. Systemic movement of a movement-deficient *Cucumber mosaic virus* in zucchini squash is facilitated by a cucurbit-infecting potyvirus. *Journal of General Virology* 83, 3173-3178. J
- Christie, W.W.** 2002. Unusual gas chromatographic properties of fatty acid pyrrolidides. *European Journal of Lipid Science and Technology* 104, 69-70. J
- Cillo, F., Roberts, I.M. & Palukaitis, P.** 2002. In situ localization and tissue distribution of the replication-associated proteins of *Cucumber mosaic virus* in tobacco and cucumber. *Journal of Virology* 76, 10654-10664. J
- Clapp, J.P., Helgason, T., Daniell, T.J. & Young, J.P.W.** 2002. Genetic studies of the structure and diversity of arbuscular mycorrhizal fungal communities. In: van der Heiden, M. & Sanders, I. (eds.). *Mycorrhizal Ecology*. Springer-Verlag, Heidelberg, 201-221. R
- Clifford, S.C., Arndt, S.K., Popp, M. & Jones, H.G.** 2002. Mucilages and polysaccharides in *Ziziphus mauritiana* and *Z. rotundifolia* (Rhamnaceae): localisation, composition and physiological roles during drought stress. *Journal of Experimental Botany* 53, 131-138. J
- Collins, L.E. & Blackwell, A.** 2002. Olfactory cues for oviposition behaviour in *Toxorhynchites moctezuma* and *Toxorhynchites amboinensis* mosquitoes. *Journal of Medical Entomology* 39, 121-126. J
- Cooke, D.E.L., Williams, N.A., Williamson, B. & Duncan, J.M.** 2002. An ITS-based phylogenetic analysis of the relationships between *Peronospora* and *Phytophthora*. In: Spencer-Phillips, P.T.N., Gisi, U. & Lebeda, A. (eds.).

Publications

- Advances in Downy Mildew Research.* Kluwer, Dordrecht, 161-165. R
- Cooke, D.E.L., Duncan, J.M., Man in't Veld, W.A. & Brasier, C.M.** 2002. Evolutionary processes and genome organisation among emerging interspecific hybrids in Phytophthora species. *International Mycological Congress (abstract)*, August 2002. P
- Cooke, D.E.L., Lees, A.K., Birch, P.R.J., Hussain, S., Carnegie, S., Duncan, J.M., Gourlay, F., Toth, R. & Young, V.** 2002. *Phytophthora infestans* populations in Scotland: The implications of mixed mating types on potato late blight management. *GILB Meeting (Poster)*, Hamburg, 11-13 July 2002. P
- Cooke, D.E.L., Lees, A.K., Hussain, S., Sullivan, L., Williams, N.A. & Duncan, J.M.** 2002. The development and use of co-dominant SNPs and SSRs in the study of gene flow in Scottish late blight populations. *International Mycological Congress (abstract)*, August 2002. P
- Cowan, G.H., Lioliopoulou, F., Ziegler, A. & Torrance, L.** 2002. Subcellular localization, protein interactions and RNA binding of Potato mop-top virus triple gene block proteins. *Virology* 298, 106-115. J
- Cullen, D.W., Lees, A.K., Pitkin, Y., Boonham, N., Walsh, K., Barker, I. & Toth, I.K.** 2002. Detection and quantification of storage rot pathogens in potato stocks and soil. *Proceedings of the 15th Triennial Conference of the European Association for Potato Research*, Hamburg, July 2002. P
- Dale, M.F.B., Robinson, D.J. & Brown, D.J.F.** 2002. Tobacco Rattle Virus in Potatoes. Developments in Epidemiology, Detection and Control. *Proceedings Crop Protection in Northern Britain*, Dundee, 19-20 February 2002. P
- Damyanova, B., Momtchilova, S., Bakalova, S., Zuilhof, H., Christie, W.W. & Kaneti, J.** 2002. Computational probes into the conceptual basis of silver ion chromatography: I. Silver (I) ion complexes of unsaturated fatty acids and esters. *Journal of Molecular Structure (Theochem)* 589, 239-249. J
- Daniell, T.J., Squires, J., Ritz, K., Wheatley, R.E. & Griffiths, B.S.** 2002. Diversity of the nitrite reductase (*NIRK*) gene in an upland pasture system. *8th New Phytologist Symposium (NPS 2002)*, Infocenter at the Viikki Biocenter, Helsinki, Finland. June 9-14, 2002. P
- Daniell, T.J., Squires, J., Ritz, K., Wheatley, R.E. & Griffiths, B.S.** 2002. Diversity of the nitrite reductase (*NIRK*) gene in an upland pasture system. *BAGECO-7*, Bergen, Norway, June 2002. P
- Davidson, F.A., Xu, R. & Liu, J.** 2002. Existence and uniqueness of limit cycles in an enzyme-catalysed reaction system. *Applied Mathematics and Computation* 127, 165-179. J
- Davidson, F.A. & Liu, J.** 2002. Global stability of the attracting set of an enzyme-catalysed reaction system. *Mathematical and Computer Modelling* 35, 1467-1481. J
- Davies, H.V.** 2002. Commercial developments with transgenic potato. In: Valpuesta, V. (ed.). *Fruit and Vegetable Biotechnology*. Woodhead Publishing Limited, Cambridge, 222-249. R
- Davies, H.V.** 2002. Does genetic engineering impact the intrinsic value and integrity of plants? *Proceedings of Igene Meeting*, Royal Botanic Garden Edinburgh, 19 September 2002. P
- Davies, M.C.R., Hamza, O. & Harris, C.** 2002. Physical modelling of the effect of climate change on rock slope stability. In: Phillips, P.J., Guo, P.J. & Popescu, R. (eds.). *Physical Modelling in Geotechnics. proceedings of the Fourth International Conference on Physical Modelling in Geomechanics St Johns, Newfoundland, Canada, July 2002*. Balkema, Rotterdam, 303-308. R
- Daws, M., Gaméné, C., Pritchard, H., Harris, C. & Glidewell, S.M.** 2002. The importance of intra- and inter-seed variation in water content for assessing the desiccation tolerance of recalcitrant tree seeds. *Tree Seeds Meeting, International Union of Forestry Research Organisation (IUFRO)*, Chania, Crete. P
- de Ruiter, P., Griffiths, B.S. & Moore, J.C.** 2002. Biodiversity and stability in soil ecosystems: patterns, processes and the effects of disturbance. In: Loreau, M., Naeem, S. & Inchausti, P. (eds.). *Biodiversity and Ecosystem Functioning Synthesis and Perspectives*. Oxford University Press, Oxford, UK, 102-113. R
- Deeks, L., Zhang, X., Bengough, A.G., Stutter, M., Watson, H., Young, I.M., Crawford, J.W., Chessell, J.M., Edwards, A. & Billet, M.F.** 2002. Measurement and simulation of solute transport in structured soil integrated over pore and core scales. *17th World Congress of Soil Science*, Bangkok, Thailand, 14-21 August 2002. P
- Dobson, G.** 2002. Analysis of fatty acids in functional foods with emphasis on w-3 fatty acids and conjugated linoleic acid. In: Hurst, W.J. (ed.). *Methods of Analysis for Functional Foods and Nutraceuticals*. CRC Press LLC, Boca Raton, Florida, Chapter 2, 65-99. R
- Dobson, G. & Christie, W.W.** 2002. Mass spectrometry of fatty acid derivatives. *European Journal of Lipid Science and Technology* 104, 36-43. J
- Dolan, K.M., Jones, J.T. & Burnell, A.** 2002. Detection of changes occurring during recovery from the dauer stage in *Heterorhabditis bacteriophora*. *Parasitology* 125, 71-82. J
- Duncan, G.H., Mayo, M.A., Barker, H., McGeachy, K.D. & Taliinsky, M.E.** 2002. PLRV amplicon expression: electron microscope observations. *Abstracts of the XIIth International Congress of Virology*, Paris, July, 2002. p.14 P
- Duncan, J.M., Lees, A.K. & Cooke, D.E.L.** 2002. EUCA-BLIGHT: a new potato late blight initiative for Europe. *Abstract , Global Initiative on late blight meeting*, Hamburg, July, 2002. P
- Duncan, J.M.** 2002. Prospects for integrated control of *phytophthora* diseases of strawberry. *Acta Horticulturae*, 567, 603-610. P
- Duncan, J.M. & Cooke, D.E.L.** 2002. Work on Raspberry Root Rot at the Scottish Crop Research Institute. *Acta Horticulturae*, 585, 271-277. P
- Durban, M., Hackett, C.A., McNicol, J.W., Newton, A.C., Thomas, W.T.B. & Currie, I.D.** 2002. The practical use of semi-parametric models in field trials. *Journal of Agricultural, Biological and Environmental Statistics* 8, 48-66. J
- Ellis, R.P.** 2002. Evaluation for resistance against abiotic stress factors. *Genres Final report EU Genres -CT-98-104 Evaluation and conservation of barley genetic resources to improve their accessibility to breeders in Europe.*, Brussels, 300pp. O
- Ellis, R.P., Forster, B.P., Gordon, D.C., Handley, L.L., Keith, R., Lawrence, P., Powell, W., Robinson, D., Scrimgeour, C.M., Young, G. & Thomas, W.T.B.** 2002.

- Phenotype/genotype associations of yield and salt tolerance in a barley mapping population segregating for two dwarfing genes. *Journal of Experimental Botany* 53, 1163-1176. J
- Ellis, R.P., Forster, B.P., Moir, J., Thomas, W.T.B., Gordon, D.C., Handley, L.L., Keith, R., Lawrence, P., Scrimgeour, C.M., Young, G., Meyer, R., Robinson, D., El-Enein, R.A., Bahri, H. & Ben Salem, M.** 2002. Salt and drought tolerance in barley. *Association of Applied Biology*. Cirencester, December 16th-18th 2002. P
- Ernst, K., Kumar, A., Kriseleit, D., Phillips, M.S. & Ganal, M.** 2002. The broad-spectrum potato cyst nematode resistance gene (*Her*) from tomato is the only member of a large family gene of NBS-LRR genes with an unusual amino acid repeat in the LRR region. *Plant Journal* 31, 127-136. J
- Eujayl, I., Sorrells, M.E., Baum, M., Wolters, P. & Powell, W.** 2002. Assessment of genotypic variation among cultivated durum wheat based EST-SSRs and genomic SSRs. *Euphytica* 119 (1), 39-43. J
- Fasim, F., Ahmed, N., Parsons, R. & Gadd, G.M.** 2002. Solubilization of zinc salts by a bacterium isolated from the air environment of a tannery. *FEMS Microbiology Letters* 213, 1-6. J
- Fernie, C.E.** 2002. Conjugated Linoleic Acid. In: Gunstone, F.D. (ed.). *Lipids in Functional Foods and Nutraceuticals*. The Oily Press, Bridgwater, England, 291. R
- Fomina, M. & Gadd, G.M.** 2002. Metal sorption by biomass of melanin-producing fungi grown in clay-containing medium. *Journal of Chemical Technology and Biotechnology* 78, 23-34. J
- Forster, B.P.** 2002. Gametic cells and molecular breeding for crop improvement. *Website for COST Action 851*. <http://www.scri.sari.ac.uk/assoc/COST851/COSThome.htm>. T
- Gadd, G.M.** 2002. Interactions between microorganisms and metals/radionuclides: the basis of bioremediation. In: Keith-Roach, M.J. & Livens, F.R. (eds.). *Interactions of microorganisms with radionuclides*. Elsevier, Amsterdam, 179-203. R
- Germundsson, A., Sandgren, M., Barker, H., Savenkov, E.I. & Valkonen, J.P.T.** 2002. Initial infection of roots and leaves reveals different resistance phenotypes associated with CP gene-mediated resistance to Potato mop-top virus. *Journal of General Virology* 83, 1201-1209. J
- Gillespie, T., Boevink, P., Haupt, S., Roberts, A.G., Toth, R., Valentine, T., Chapman, S.N. & Oparka, K.J.** 2002. Functional analysis of a DNA-shuffled movement protein reveals that microtubules are dispensable for cell-to-cell movement of tobacco mosaic virus. *Plant Cell* 14, 1207-1222. J
- Glidewell, S.M., Möller, M., Duncan, G.H., Mill, R.R., Masson, D. & Williamson, B.** 2002. NMR imaging as a tool for non-invasive taxonomy: comparison of female cones of two Podocarpaceae. *New Phytologist* 154, 197-207. J
- Goodman, B.A., Glidewell, S.M., Arbuckle, C.M., Bernardin, S., Cook, T.R. & Hillman, J.R.** 2002. An EPR study of free radical generation during maceration of uncooked vegetables. *Journal of the Science of Food and Agriculture* 82, 1208-1215. J
- Goodman, B.A. & Glidewell, S.M.** 2002. Direct methods of metal speciation. In: Ure, A.M. & Davidson, C.M. (eds.). *Chemical Speciation in the Environment, 2nd edition*. Blackwell Science, Oxford, 30-66. R
- Goodman, B.A.** 2002. Free radical reactions in foods; potential contributions of EPR spectroscopy to understanding quality criteria. *35th ESR Conference of the Royal Society of Chemistry*, Aberdeen, April 2002. P
- Goodman, B.A. & Pascual, E.C.** 2002. Spin trapping using DEPMPO to identify free radicals generated during the oxidation of coffee aroma compounds. *Confidential Report to Nestle* 1-23. O
- Gordon, S.C., Thompson, C.E., Anderson, J.N. & Ramsay, G.** 2002. A comparison of foraging of *Apis* and *Bombus* spp. in a mixed farming landscape. *Proceedings of the 6th European 'Bees without frontiers'*, Cardiff, 1-5 July 2002, p. 4. P
- Gordon, S.C.** 2002. Diseases of cane and bush fruits in Europe. *COST Action 836 WP6*. Velence, Hungary, 24-26 Oct, 2002. P
- Gordon, S.C.** 2002. Small fruit growing in Siberia. *HDC News (October)* 20-22. O
- Gordon, S.C., Woodford, J.A.T., Williamson, B., Grassi, A., Höhn, H. & Tuovinen, T.** 2002. The 'RACER' Project - A Blueprint for Rubus IPM Research. *Proceedings of 8th International Rubus & Ribes Symposium*, Dundee, 4-11 July 2001, *Acta Horticulturae* 585, 343-346. P
- Gordon, S.C.** 2002. Vine weevils and other wingless weevils - understanding and managing these insect pests in the garden. *The Royal Caledonian Horticultural Society, Caledonian Gardener*, p.57-62. O
- Graham, J., Smith, K., Woodhead, M. & Russell, J.R.** 2002. Development and use of simple sequence repeat SSR markers in Rubus species. *Molecular Ecology* 2, 250-252. J
- Graham, J., Gordon, S.C., Smith, K., McNicol, R.J. & McNicol, J.W.** 2002. The effect of the Cowpea trypsin inhibitor in strawberry on damage by vine weevil under field conditions. *Journal of Horticultural Science and Biotechnology* 77, 33-40. J
- Grant, R.J., Daniell, T.J. & Betts, W.B.** 2002. Isolation and identification of synthetic pyrethroid degrading bacteria. *Journal of Applied Microbiology* 92, 534-540. J
- Grenier, E., Blok, V.C., Jones, J.T., Fouville, D. & Mugniéry, D.** 2002. Identification of gene expression differences between *Globodera pallida* and *G. 'mexicana'* by suppressive subtractive hybridisation. *Molecular Plant Pathology* 3, 217-227. J
- Griffiths, B.S., Hallett, P.D., Kuan, H.L. & Pitkin, Y.** 2002. Measuring soil biological and physical resilience to determine soil quality. *British Geological Survey Conference on Contaminated Soil*, Keyworth, England, December 2002. P
- Griffiths, B.S.** 2002. Protozoa. In: Lal, R. (ed.). *Encyclopaedia of Soil Science*. Marcel Dekker, New York, 1055-1057. R
- Griffiths, B.S.** 2002. Spatial distribution of soil protozoa in an upland grassland. *European Journal of Protistology* 37, 371-373. J
- Griffiths, B.S., van der Putten, W.H. & de Ruiter, P.** 2002. The structure and function of food-webs. *Nematology*, 4, 158 P
- Griffiths, B.S., Bengough, A.G., Neilson, R. & Trudgill, D.L.** 2002. The extent to which nematode communities are affected by soil factors - a pot experiment. *Nematology* 4, 943-952. J

Publications

- Gunstone, F.D.** 2002. Food applications of lipids. In: Akoh, C.C. & Min, D.B. (eds.). *Food Lipids - Chemistry, Nutrition and Biotechnology (2nd edition)*. Marcel Dekker, New York, 729-750. R
- Gunstone, F.D.** 2002. Market Focus. *Lipid Technology Newsletter* 8, 21-22, 45-47, 69-71, 94-95, 118-119. O
- Gunstone, F.D.** 2002. Market Report. *Lipid Technology* 14, 24, 48, 72, 96, 120, 144. O
- Gunstone, F.D.** 2002. Market Reports. *Lipid Technology and Lipid Technology Newsletter* 12, 24, 48, 72, 96, 120, 148. O
- Gunstone, F.D.** 2002. Market Reports. *Lipid Technology Newsletter* 8, 24, 48, 72, 96, 120, 144. O
- Gunstone, F.D.** 2002. Market Reports. *INFORM* 13, 65-68, 159-162, 221-224, 391-392, 485-487, 586-588, 688-689, 810-812, 940-941. O
- Gunstone, F.D.** 2002. Production and consumption of rapeseed oil on a global scale. *European Journal of Lipid Science and Technology* 103, 447-449. J
- Gunstone, F.D.** 2002. Production and trade of vegetable oils. In: Gunstone, F.D. (ed.). *Vegetable Oils in Food Technology*. Blackwell Scientific Publishing, Oxford, 1-17. R
- Gunstone, F.D.** 2002. Research Highlights. *Lipid Technology* 13, 19-22, 42-44, 65-69, 90-93.. O
- Gunstone, F.D.** (eds.). 2002. *Vegetable Oils in Food Technology*. Blackwell Scientific Publishing, Oxford, UK, 337 pp., R
- Guschina, I.A., Dobson, G. & Harwood, J.L.** 2002. Lipid metabolism in the moss *Dicranum scoparium*: effect of light conditions and heavy metals on the accumulation of acetylenic triacylglycerols. *Physiologia Plantarum* 116, 441-450. J
- Hallett, P.D., Feeney, D., Baumgartl, T., Ritz, K., Wheatley, R.E. & Young, I.M.** 2002. Can biological activity dictate soil wetting, stability and preferential flow? *17th World Congress of Soil Science*, Bangkok, Thailand, 14-21 August 2002. P
- Hancock, R.D. & Viola, R.** 2002. The use of micro-organisms for L-ascorbic acid production: current status and future perspectives. *Applied Microbiology and Biotechnology* 56, 567-576. J
- Handley, L.L.** 2002. Diazotrophy and d¹⁵N. *Proceedings of the Royal Irish Academy* 102B, 49-51. J
- Harrier, L.A., Millam, S. & Hooker, J.E.** 2002. Biolistic transformation of arbuscular mycorrhizal fungi advances and applications. In: Gianinazzi, S. (ed.). *Mycorrhizal Technology in Agriculture*. Birkhauser Verlag, Basel, 56-70. R
- Harris, C., Davies, M.C.R. & Rea, B.** 2002. Centrifuge modelling of slope processes in ice-rich soils. In: Phillips, P.J., Guo, P.J. & Popescu, R. (eds.). *Physical Modelling in Geotechnics. proceedings of the Fourth International Conference on Physical Modelling in Geomechanics St Johns, Newfoundland, Canada, July 2002*. Balkema, Rotterdam, 297-302. R
- Harris, K., Crabb, D., Young, I.M., Weaver, H., Gilligan, C., Otten, W. & Ritz, K.** 2002. *In situ* visualisation of fungi in soil thin sections: problems with crystallisation of the fluorochrome FB 28 (Calcofluor M2R) and improved staining by SCRI Renaissance 2200. *Mycological Research* 106, 293-297. J
- Harrison, B.D., Swanson, M.M. & Fargette, D.** 2002. Begomovirus coat protein: serology, variation and functions. *Physiological and Molecular Plant Pathology* 60, 257-271. J
- Harrison, B.D. & Robinson, D.J.** 2002. Green shoots of geminivirology. *Physiological and Molecular Plant Pathology* 60, 215-218. J
- Harrison, B.D. & Reavy, B.** 2002. *Potato mop-top virus. Descriptions of Plant Viruses* No. 389. J
- Harrison, B.D.** 2002. Virus variation in relation to resistance-breaking in plants. *Euphytica* 124, 181-192. J
- Hawes, C., Stewart, A.J.A. & Evans, H.F.** 2002. The impact of wood ants (*Formica rufa*) on the distribution and abundance of ground beetles (*Coleoptera: Carabidae*) in a Scots pine plantation. *Oecologia* 131, 612-619. J
- Hillier, J. & Birch, A.N.E.** 2002. A bi-trophic mathematical model for pest adaptation in a resistant crop. *Journal of Theoretical Biology* 215, 305-319. J
- Hillier, J., Birch, A.N.E., Crawford, J.W., Squire, G.R., Hawes, C. & Maule, M.M.** 2002. A tri-trophic model to explore insect community response to the introduction of a pest-resistant GM crop. *Proceedings of IOBC Host Plant Resistance Workshop*, Sweden, 2001. P
- Hillier, J. & Birch, A.N.E.** 2002. Travelling waves of resistance in a bi-trophic pest adaptation model. *Journal of Theoretical Biology* 219, 507-519. J
- Holeva, R.C., Young, V., Boutsika, K., Phillips, M.S., Brown, D.J.F., Neilson, R. & Blok, V.C.** 2002. Development and evaluation of a fluorogenic 5' nuclease PCR assay (Taqman) for the detection and quantification of virus-vector trichodoridae species. *Nematology* 4, 162. P
- Holeva, R.C., Chen, Q., Curtis, R., Neilson, R., Jones, J.T., Blok, V.C. & Brown, D.J.F.** 2002. Magnetic separation as a tool in a sample preparation procedure for direct detection and quantification of trichodoridae nematodes. *Nematology* 4, 161-162. P
- Horrobin, D.F., Jenkins, K., Bennett, C.N. & Christie, W.W.** 2002. Eicosapentaenoic acid and arachidonic acid: collaboration and not antagonism is the key to biological understanding. *Prostaglandins Leukotrienes and Essential Fatty Acids* 66, 83-90. J
- Hughes, M., Russell, J. & Hollingsworth, P.M.** 2002. Polymorphic microsatellite markers for the Socotran endemic herb *Begonia socotrana*. *Molecular Ecology Notes* 2, 159-160. J
- Humphris, S.N., Wheatley, R.E., Buultjens, E. & Bruce, A.** 2002. Effect of volatiles from *Trichoderma* species on the regulation of protein synthesis in *Serpula lacrymans* isolates. *Proceedings of the International Research Group, 33rd Annual Meeting*, Cardiff, Wales, May 2002. P
- Humphris, S.N., Bruce, A., Buultjens, E. & Wheatley, R.E.** 2002. The effects of volatile microbial secondary metabolites on protein synthesis in *Serpula lacrymans*. *FEMS Microbiology Letters* 210, 215-219. J
- Husmeier, D. & Wright, F.** 2002. A Bayesian approach to discriminate between alternative DNA sequence segmentations. *Bioinformatics* 18, 226-234. J
- Husmeier, D. & McGuire, G.** 2002. Detecting recombination with MCMC. *Bioinformatics* 18, S345-S353. J
- Hübschen, J., Ipach, U., Zinkernagel, V., Esmenaud, D., Brown, D.J.F. & Neilson, R.** 2002. Molecular diagnostics

- for virus-transmitting nematodes in German viticulture. *Nematology* 4, 170-171. P
- Hübschen, J., Neilson, R., Ipach, U. & Brown, D.J.F.** 2002. Phylogenetic relationships based on 18S sequences among some *Xiphinema* species with three and four juvenile development stages. *Nematology* 4, 170. P
- Igartua, E., Hayes, P.M., Thomas, W.T.B., Meyer, R. & Mather, D.E.** 2002. Genetic control of quantitative grain and malt quality traits in barley. *Journal of Crop Production* 5, 131-164. J
- Ikegami, M., Iwanami, T., Jones, A.T., Karasev, A., Le Gall, O., Lehto, K., Sanfracon, H., Wellink, J., Wetzel, T. & Yoshikawa, N.** 2002. Taxonomy of recognised and putative species in the family *Comoviridae*. Poster presentation at the XIIth International Congress of Virology, Paris, France, 27 July-1 August, 2002. P
- Ivandic, V., Hackett, C.A., Nevo, E., Keith, R., Thomas, W.T.B. & Forster, B.P.** 2002. Analysis of simple sequence repeats (SSRs) in wild barley from the Fertile Crescent: associations with ecology, geography and flowering time. *Plant Molecular Biology* 48, 511-527. J
- Jacobs, H., Boswell, G.P., Ritz, K., Davidson, F.A. & Gadd, G.M.** 2002. Solubilization of calcium phosphate as a consequence of carbon translocation by *Rhizoctonia solani*. *FEMS Microbiology Ecology* 40, 65-71. J
- Jacobs, H., Boswell, G.P., Ritz, K., Davidson, F.A. & Gadd, G.M.** 2002. Solubilization of metal phosphates by *Rhizoctonia solani*. *Mycological Research* 106, 1468-1479. J
- Jennings, S.N. & Brennan, R.M.** 2002. Improvement of raspberry cultivars in Scotland. *Proceedings of 8th International Rubus and Ribes Symposium*, Dundee, 4-11 July 2001 *Acta Horticulturae* 585, 179-183. P
- Jones, A.T., Kumar, P.L. & Reddy, D.V.R.** 2002. Characterization of the causal virus of pigeonpea sterility mosaic disease: a step towards attaining sustainability of pigeonpea production in the Indian subcontinent. *Interim Technical Report of Project R7452 to the Department for International Development*, London, UK, 41pp. T
- Jones, A.T., McGavin, W.J., Geering, A.D.W. & Lockhart, B.E.L.** 2002. Identification of Rubus yellow net virus as a distinct badnavirus and its detection by PCR in *Rubus* species and in aphids. *Annals of Applied Biology* 141, 1-10. J
- Jones, A.T.** 2002. Important virus diseases of *Ribes*, their diagnosis, detection and control. *Proceedings of 8th International Rubus and Ribes Symposium*, Dundee, 4-11 July 2001 *Acta Horticulturae* 585, 279-285. P
- Jones, A.T. & McGavin, W.J.** 2002. Improved RT-PCR detection of *Blackcurrant reversion virus* (BRV) in reversion-diseased blackcurrant plants and further evidence that BRV is the causal agent of the disease. *Plant Disease* 86, 1333-1338. J
- Jones, E.R.L. & Newton, A.C.** 2002. *Rhynchosporium* of barley. *United Kingdom Cereal Pathogen Virulence Survey Annual Report for 2001*, 75-85. O
- Jones, H., Santoro, G., Boag, B. & Neilson, R.** 2002. Land planarian predation on earthworms: univariate and multivariate analysis of earthworm populations. *Proceedings of the 7th International Symposium on Earthworm Ecology*, Cardiff, Wales, 1-6 September 2002. P
- Jones, H.G., Stoll, M., Santos, T., de Sousa, C., Chaves, M. & Grant, O.M.** 2002. Use of infra-red thermography for monitoring stomatal closure in the field: application to grape vine. *Journal of Experimental Botany* 53, 2249-2260. J
- Kim, S.H., Palukaitis, P. & Park, Y.I.** 2002. Phosphorylation of cucumber mosaic virus RNA polymerase 2a protein inhibits formation of replicase complex. *EMBO Journal* 21, 2292-2300. J
- Kimber, M., Fleming, C., Prior, A., Jones, J.T., Halton, D. & Maule, A.** 2002. Localisation of *Globodera pallida* FMRFamide-related peptide encoding genes using *in situ* hybridisation. *International Journal for Parasitology* 32, 1095-1105. J
- Kimpel, A., Schulze Gronover, C., Williamson, B., Stewart, J.A. & Tudzynski, B.** 2002. The adenylate cyclase (BAC) in *Botrytis cinerea* is required for full pathogenicity. *Molecular Plant Pathology* 3, 439-450. J
- Kirby, J.M. & Bengough, A.G.** 2002. Influence of soil strength on root growth: experiments and analysis using a critical-state model. *European Journal of Soil Science* 53, 1-9. J
- Kmiecik, M., Simpson, C.G., Lewandowska, D., Brown, J.W.S. & Jarmolowski, A.** 2002. Cloning and characterisation of *Arabidopsis thaliana* nuclear cap-binding complex. *Gene* 283, 171-183. J
- Kulkarni, N.K., Reddy, A.S., Kumar, P.L., Vijaynarasimha, J., Rangaswamy, K.T., Reddy, L.J., Saxena, K.B., Jones, A.T. & Reddy, D.V.R.** 2002. Broad-based resistance to Pigeonpea sterility mosaic disease in the accessions of *Cajanus scarabaeoides*. *National Seminar on Resources Management in Plant Protection During the Twenty-first Century*, NBAGR, Rajendranagar, Hyderabad, AP, India, 58. P
- Kulkarni, N.K., Kumar, P.L., Muniyappa, V., Jones, A.T. & Reddy, D.V.R.** 2002. Studies on pigeonpea sterility mosaic disease: transmission, virus vector relationships and identification of resistant sources. *Plant Disease Scenario In Southern India*, University of Agriculture Sciences, Bangalore 560065, India, 9. P
- Kulkarni, N.K., Kumar, P.L., Muniyappa, V., Jones, A.T. & Reddy, D.V.R.** 2002. Transmission of Pigeonpea sterility mosaic virus by the Eriophyid Mite, *Aceria cajani* (Acari: Arthropoda). *Plant Disease* 86, 1297-1302. J
- Kumar, P.L., Duncan, G.H., Roberts, I.M., Jones, A.T. & Reddy, D.V.R.** 2002. Cytopathology of Pigeonpea sterility mosaic virus in pigeonpea and *Nicotiana benthamiana*: similarities with those of eriophyid mite-borne agents of undefined aetiology. *Annals of Applied Biology* 140, 87-96. J
- Kumar, P.L., Jones, A.T. & Reddy, D.V.R.** 2002. Mechanical transmission of Pigeonpea sterility mosaic virus. *Indian Journal of Plant Pathology* 32, 88-89. J
- Kumar, P.L., Jones, A.T. & Reddy, D.V.R.** 2002. Methods for the detection of Pigeonpea sterility mosaic virus and screening for SMD resistance - training course manual. ICRISTAT, Patancheru 502, 324, India, August 2002. 65pp. T
- Kumar, P.L., Jones, A.T. & Reddy, D.V.R.** 2002. Properties of a novel eriophyid mite-transmitted virus from pigeonpea. *International Conference on Advances in Plant Virology*, Homerton College, Cambridge, England, April 17-19, 2002. P
- Kumar, P.L., Jones, A.T., Kulkarni, N.K., Muniyappa, V., Rangaswamy, K., Sreenivasulu, P., Saxena, K.B. & Reddy, D.V.R.** 2002. Towards sustainable management of Pigeonpea sterility mosaic disease. *Asian Congress of Mycology and Plant Pathology*, University of Mysore, Mysore 570006, India, 14, October 1-4, 2002. P

Publications

- Kunzel, G. & Waugh, R.** 2002. Integration of microsatellite markers into the translocation-based physical RFLP map of barley chromosome 3H. *Theoretical and Applied Genetics* 105, 660-665. J
- Laskin, A.I., Bennett, J.W. & Gadd, G.M.** (eds.). 2002. *Advances in Applied Microbiology Volume 51*. Academic Press, New York, 268pp. R
- Lee, L., Palukaitis, P. & Gray, S.M.** 2002. Host-dependent requirement for the *Potato leafroll virus* 17-kDa protein in virus movement. *Molecular Plant-Microbe Interactions* 15, 1086-1094. J
- Lees, A.K., Cullen, D.W., Sullivan, L. & Nicolson, M.J.** 2002. Development of conventional and quantitative real-time PCR assays for the detection and identification of *Rhizoctonia solani* AG-3 in potato and soil. *Plant Pathology* 51, 293-302. J
- Lees, A.K., van de Graaf, P., Cullen, D. & Duncan, J.M.** 2002. The development of a quantitative real-time PCR assay for *Spongospora subterranea* and its use in epidemiological studies. *Proceedings of the International Working Group on Plant Viruses with Fungal Vectors, 5th Symposium*, Zurich, Switzerland, 22-25 July, 2002. P
- Lees, A.K., Hussain, S., Cooke, D.E.L. & Duncan, J.M.** 2002. The development of *Phytophthora infestans* specific primers and their use in epidemiological studies. *GILB Meeting (Poster)*, Hamburg, 11-13 July 2002. P
- Legorburu, F.J., Jordá, M.C., Keller, H., Schots, A., Harper, K., Liney, M. & Mayo, M.A.** 2002. Cloned antigens as no risk, standardized positive controls in Elisa. *Abstracts of the XI Congreso de la Sociedad, Española de Fitopatología*, Almeria, Spain, 14th - 18th October 2002. P
- Liu, H., Reavy, B., Swanson, M.M. & MacFarlane, S.A.** 2002. Functional replacement of the *Tobacco rattle virus* cysteine-rich protein by pathogenicity proteins from unrelated plant viruses. *Virology* 298, 232-239. J
- Liu, J.** 2002. Dynamics and co-ordination of nonlinear biochemical systems under fluctuations. *5th Mathematical modelling and computing in biology and medicine meeting*, Italy, July 2002. P
- Liu, J.** 2002. State selection in coupled identical biochemical systems with coexisting stable states. *BioSystems* 65, 49-61. J
- Lyon, G.D., Newton, A.C. & Marshall, B.** 2002. The need for a standard nomenclature for gene classification (a Nucleotide Function Code) and an automated data-based tool to assist in understanding the molecular associations in cell signalling in plant-pathogen interactions. *Molecular Plant Pathology* 3, 103-109. J
- MacFarlane, S.A., Neilson, R. & Brown, D.J.F.** 2002. Plant Virus Vector Interactions. In: Plumb, R.T. (ed.). *Advances in botanical research No 36 - interctions between plant viruses and their vectors*. Academic Press, London & New York, 169-198. R
- Mackay, G.R.** 2002. The potato: origins, current status and future potential. *Rank Mini Symposium*. Cumbria, October 2002. P
- MacKerron, D.K.L., Marshall, B., McNicol, J.W. & Tonberg, J.** 2002. Influences of Market Specifications. *Abstracts 15th Triennial Conference*, EAPR, Hamburg, July 2002. P
- MacKerron, D.K.L., Marshall, B. & McNicol, J.W.** 2002. The agronomy of seed production: The significance of number of tubers. *Rivista di Agronomia* 36, 79-80. J
- MacKerron, D.K.L. & Young, M.W.** 2002. Variable nitrogen - Variable crop. *Abstracts 15th Triennial Conference*, EAPR, Hamburg, July 2002. P
- Marion, G., Mao, X., Renshaw, E. & Liu, J.** 2002. Spatial heterogeneity and the stability of reaction states in the quadratic catalysis. *Physical Review E* 66, art no: 051915. J
- Marshall, D.F., Ramsay, L., Cardle, L., Russell, J.R., Hedley, P.E., Booth, A., Fuller, J.D., Machray, G.C. & Waugh, R.** 2002. Electronic single nucleotide polymorphism in barley EST's: Discovery, Validation and Mapping. *Abstracts of Plant and Animal Genome X*, 2002. P
- Mateille, T., Trudgill, D.L., Trivino, C., Bala, G., Sawadogo, A. & Vouyoukalou, E.** 2002. Multisite survey of soil interactions with infestation of root-knot nematodes (*Meloidogyne* spp.) by *Pasteuria penetrans*. *Soil Biology & Biochemistry* 34, 1417-1424. J
- May, K.J., Whisson, S.C., Zwart, R.S., Searle, I.R., Irwin, J.A.G., Maclean, D.J., Carroll, B.J. & Drenth, A.** 2002. Inheritance and mapping of 11 avirulence genes in *Phytophthora sojae*. *Fungal Genetics and Biology* 37, 1-12. J
- Mayo, M.A. & Reddy, D.V.R.** (eds.). 2002. *Aflatoxin detection, quantitative estimation and management*. *Proceedings of a consultative meeting held on 8th and 9th January 2001 at ICRISAT, Patancheru*. SCRI, Dundee, 33pp. R
- Mayo, M.A.** 2002. Names of viruses and virus species - an editorial note. *Archives of Virology* 147, 1462-1463. J
- Mayo, M.A., Reddy, K.L., Miller, J.S. & McNicol, J.W.** 2002. Safe to eat or Why chickens die? Developing low cost and simple technologies for aflatoxin estimation in foods and feeds. Progress at SCRI. In: Mayo, M.A. & Reddy, D.V.R. (eds.). *Aflatoxin detection, quantitative estimation and management*. SCRI, Dundee, 8-9. R
- Mayo, M.A.** 2002. The principles and current practice of plant virus taxonomy. In: Khan, J.A. & Dijkstra, J. (eds.). *Plant viruses as molecular pathogens*. Food Products Press, Binghampton, USA, 3-23. R
- Mayo, M.A., Maniloff, J., van Regenmortel, M. & Fauquet, C.** 2002. The type species in virus taxonomy. *Archives of Virology* 147, 1271-1274. J
- Mayo, M.A.** 2002. Virus taxonomy - Houston 2002. *Archives of Virology* 147, 1071-1076. J
- McCue, K.F., Corsini, D.I., Shepherd, L.V.T., Moehs, C.P., Joyce, P., Davies, H.V. & Belknap, W.R.** 2002. Reduction of total steroidal glycoalkaloids in potato tubers using antisense constructs of a gene encoding a solanidine glycosyl transferase. *Potato Association of America*, Toronto, Canada, July 2002. P
- Millam, S.** 2002. Alternative startegies for gametic embryogenesis technology in potato. *Gametic Cell and Molecular Breeding in Sustainable Agriculture*, Budapest, 10-12 May 2002. P
- Molina-Cano, J.-L., Sopena, A., Polo, J.P., Bergareche, C., Moralejo, M.A., Swanston, J.S. & Glidewell, S.M.** 2002. Relationships between barley hordeins and malting quality in a mutant of cv. *Triumph*. II. Genetic and environmental effects on water uptake. *Journal of Cereal Science* 36, 39-50. J
- Morgante, M., Hanafey, M. & Powell, W.** 2002. Microsatellites are preferentially associated with the non repetitive DNA in plant genomes. *Nature Genetics* 30, 194-200. J

- Muckenschabel, I., Goodman, B.A., Williamson, B., Lyon, G.D. & Deighton, N.** 2002. Infection of leaves of *Arabidopsis thaliana* by *Botrytis cinerea*: changes in ascorbic acid, free radicals and lipid peroxidation products. *Journal of Experimental Botany* 53, 207-214. J
- Mulatya, J.M., Wilson, J., Ong, C.K., Deans, J.D. & Sprent, J.I.** 2002. Root architecture of provenances, seedlings and cuttings of *Melia volkensii*: implications for crop yield in dryland agroforestry. *Agroforestry Systems* 56, 65-72. J
- Murillo-Amador, B., Troyo-Dièguez, E., Lopez-Cortez, A., Tinoco-Ojanguri, C.L., Jones, H.G. & Kaya, C.** 2002. Matching physiological traits and ion concentrations associated with salt stress in cowpea genotypes. *Australian Journal of Agricultural Research* 53, 1243-1255. J
- Nechev, J., Christie, W.W., Robaina, R., de Diego, F.M., Ivanova, A., Popov, S. & Stefanov, K.** 2002. Chemical composition of the sponge *Chondrosia reniformis* from the Canary Islands. *Hydrobiologia* 489, 91-98. J
- Nechev, J., Christie, W.W., Robaina, R., de Diego, F., Popov, S. & Stefanov, K.** 2002. Lipid composition of the sponge *Verongia aerophoba* from the Canary Islands. *European Journal of Lipid Science and Technology* 104, 800-807. J
- Neilson, R., Robinson, D., Marriott, C., Scrimgeour, C.M., Hamilton, D., Wishart, J., Boag, B. & Handley, L.L.** 2002. Above-ground grazing affects floristic composition and modifies soil trophic interactions. *Soil Biology and Biochemistry* 34, 1507-1512. J
- Neilson, R., Hübschen, J., de Oliveira, C.M.G., Auwerkerken, A., Barsi, L., Ferraz, L.C.C.B., Ipach, U., Lazarova, S., Liskova, M., Peneva, V., Robbins, R.T., Susulovsky, A., Tzortzakakis, M., Ye, W., Zheng, J. & Brown, D.J.F.** 2002. An 18S rDNA phylogeny of selected Longidoridae. *Proceedings of the 10th International Congress of Parasitology*, Vancouver, Canada, 3-10 August 2002. P
- Neilson, R., Blok, V.C., McNicol, J.W. & Phillips, M.S.** 2002. Genetic differentiation of individuals and populations of the endoparasitic nematode *Globodera pallida* using microsatellites. *Nematology* 4, 175. P
- Neilson, R., Blok, V.C., McNicol, J.W. & Phillips, M.S.** 2002. Intra- and inter-population genetic variability of the potato cyst nematode *Globodera pallida*. *Proceedings of the 10th International Congress of Parasitology*, Vancouver, Canada, 3-10 August 2002. P
- Neilson, R. & Boag, B.** 2002. Marine nematode associations from an intertidal estuarine biotope. *Russian Journal of Nematology* 10, 113-121. J
- Neilson, R., Wall, J.W. & Skene, K.R.** 2002. Nematode community and trophic structure along a sand dune succession. *Nematology* 4, 255. P
- Neilson, R. & Boag, B.** 2002. Temporal trophic dynamics and relationships of earthworms in woodlands and pastures. *7th International Symposium on Earthworm Ecology*, Cardiff, Wales, 1-6 September 2002. P
- Newson, T.A., Fyfe, C.J. & Davies, M.C.R.** 2002. Monitoring contaminant migration in centrifuge models of porous media. In: Phillips, P.J., Guo, P.J. & Popescu, R. (eds.). *Physical Modelling in Geotechnics, proceedings of the Fourth International Conference on Physical Modelling in Geomechanics St Johns, Newfoundland, Canada, July 2002*. Balkema, Rotterdam, 361-366. R
- Newton, A.C., Toth, I.K., Neave, P. & Hyman, L.J.** 2002. Bacterial pathogens from a previous crop affect fungal leaf blight development on subsequent non-host crops. *Proceedings of the Second International Barley Leaf Blight Workshop*, ICARDA, Aleppo, 7-11 April 2002. P
- Newton, A.C., Swanston, J.S., Guy, D.C. & Thomas, W.T.B.** 2002. Control of *Rhynchosporium secalis* using host genetic and morphology heterogeneity. *Proceedings of the Second International Barley Leaf Blight Workshop*, ICARDA, Aleppo, Syria, 7-11 April 2002. P
- Newton, A.C., Lyon, G.D. & Marshall, B.** 2002. DRAS-TIC: A database resource for analysis of signal transduction in cells. *BSPP Newsletter* 42, 36-37. O
- Newton, A.C., Swanston, J.S., Russell, J.R., Hoad, S., Spoor, W. & Hocart, M.** 2002. Malting quality barley variety mixtures: are they practical? *Proceedings Crop Protection in Northern Britain*, Dundee, 19-20 February 2002, 157-162. P
- Newton, A.C.** 2002. Spots, Blights and Scalds in Syria: The Second International Barley Leaf Blight Workshop, ICARDA, Aleppo, Syria. *BSPP Newsletter* 42, 33-34. O
- Newton, A.C., Lees, A.K., Hilton, A.J. & Thomas, W.T.B.** 2002. Susceptibility of oat cultivars to grain discolouration: causes and remedies. *Plant Breeding* 122, 125-130. J
- Newton, A.C.** 2002. What are crop mixtures. *Eden Project Exhibit*. Cornwall, England. T
- Nunan, N., Wu, K., Young, I.M., Crawford, J.W. & Ritz, K.** 2002. *In situ* spatial patterns of soil bacterial populations, mapped at multiple scales in an arable soil. *Microbial Ecology* 44, 296-305. J
- Nurkiyanova, K.M., Watters, J., Shaw, J., Moir, J., Jones, M., Fitzgerald, T., Haig, D., Nettleton, P., Flint, D., Santa Cruz, S., Brown, J.W.S. & Lacomme, C.** 2002. Development of TMV-based expression vectors for optimal peptide presentation. *Abstracts of the Xth International Congress of Virology*, Paris, France, 27th July – 1st August 2002, p.268. P
- O'Connell, A., Holt, K., Piquemal, J., Grima-Pettenati, J., Boudet, A., Lapierre, C., Petit-Conil, M., Schuch, W. & Halpin, C.** 2002. Improved paper pulp from plants with suppressed cinnamoyl-CoA reductase or cinnamyl alcohol dehydrogenase. *Transgenic Research* 11, 495-503. J
- Odee, D.W., Haukka, K., McInroy, S.G., Sprent, J.I., Sutherland, J.M. & Young, J.P.W.** 2002. Genetic and symbiotic characterization of rhizobia isolated from tree and herbaceous legumes grown in soils from ecologically diverse sites in Kenya. *Soil Biology and Biochemistry* 34, 801-811. J
- Oliveira, C.M.G., Brown, D.J.F., Neilson, R., Monteiro, A.R. & Ferraz, L.C.C.B.** 2002. The occurrence and geographic distribution of *Xiphinema* and *Xiphidorus* species (Nematoda: Longidoridae) in Brazil. *Nematology* 4, 272-273. P
- Osborne, B.A. & Sprent, J.I.** 2002. Ecology of the Nostoc-Gunnera symbiosis. In: Rai, A.N., Bergman, B. & Rasmussen, U. (eds.). *Cyanobacteria in Symbiosis*. Kluwer Academic Publishers, Dordrecht, 233-251. R
- Pascual, E.C., Goodman, B.A. & Yeretzian, C.** 2002. Characterisation of free radicals in soluble coffee by electron paramagnetic resonance spectroscopy. *Journal of Agricultural and Food Chemistry* 50, 6114-6122. J

Publications

- Pascual, E.C. & Goodman, B.A.** 2002. EPR spectroscopic studies of coffee aroma distillates. *Project Progress Report Nestlé*, Basel, 9 pp. O
- Peksel, A., Torres, N.V., Liu, J., Juneau, G. & Kubicek, C.** 2002. ^{13}C -NMR analysis of glucose metabolism during citric acid production by *Aspergillus niger*. *Applied Microbiology and Biotechnology* 58, 157-163. J
- Phillips, M.S., Neilson, R. & Blok, V.C.** 2002. Selection for virulence in populations of *Globodera pallida*. *Nematology* 4, 223. P
- Pilate, G., Guiney, E., Petit-Conil, M., Lapierre, C., Leple, J.-C., Pollet, B., Mila, I., Webster, E.A., Marstrop, H.G., Hopkins, D.W., Jouanin, L., Boerjan, W., Schuch, W., Cornu, D. & Halpin, C.** 2002. Field and pulping performances of transgenic trees with altered lignification. *Nature Biotechnology* 20, 607-612. J
- Pinheiro, R.D., Boddey, L.H., James, E.K., Sprent, J.I. & Boddey, R.M.** 2002. Adsorption and anchoring of Azospirillum strains to roots of wheat seedlings. *Plant and Soil* 246, 151-166. J
- Pirker, K.F., Goodman, B.A., Pascual, E.C., Kiefer, S., Soja, G. & Reichenauer, T.G.** 2002. Free radicals in the fruit of three strawberry cultivars exposed to drought stress in the field. *Plant Physiology and Biochemistry* 40, 709-717. J
- Pogue, G. & Lacomme, C.** 2002. Enhancement of virus induced gene silencing (VIGS) through viral-based expression of inverted-repeats. *Patent Application*. 60/410,879. Filed September 13, 2002. T
- Powell, W., Booth, A., Caldwell, K.S., Fuller, J.D., Hedley, P.E., Machray, G.C., Marshall, D.F., Ramsay, L., Thomas, W.T.B. & Waugh, R.** 2002. Examination of biodiversity in barley. *ITMI Workshop*, PAGM 2002. P
- Price, A.H., Cairns, J.E., Horton, P., Jones, H.G. & Griffiths, H.** 2002. Genetic basis of drought resistance in upland rice using a QTL approach: progress and new opportunities to integrate stomatal and mesophyll responses. *Journal of Experimental Botany* 53, 989-1004. J
- Provan, J., Corbett, G., McNicol, J.W. & Powell, W.** 2002. Chloroplast DNA variability in wild and cultivated rice (*Oryza* spp.) revealed by polymorphic chloroplast simple sequence repeats. *Genome* 40, 104-110. J
- Ranomenjanahary, S., Rabindran, R. & Robinson, D.J.** 2002. Occurrence of three distinct begomoviruses in cassava in Madagascar. *Annals of Applied Biology* 140, 315-318. J
- Reavy, B. & Mayo, M.A.** 2002. Persistent transmission of luteoviruses by aphids. *Advances in Botanical Research* 36, 21-46. J
- Reddy, A.S., Kulkarni, N.K., Kumar, P.L., Jones, A.T., Muniyappa, V. & Reddy, D.V.R.** 2002. A new graft inoculation method for screening resistance to *Pigeonpea sterility mosaic virus*. *International Chickpea and Pigeonpea Newsletter* 9, 44-46. O
- Reddy, A.S., Prasada Ra, R.D.V.J., Thirumala-Devi, K., Reddy, S.V., Mayo, M.A., Roberts, I.M., Satyanarayana, T., Subramanian, K. & Reddy, D.V.R.** 2002. Occurrence of *Tobacco streak virus* on peanut (*Arachis hypogaea*) in India. *Plant Disease* 86, 173-178. J
- Ritchie, M.R., Thompson, A.M., Cummings, J.H., Deighton, N., Morton, L.J. & Bolton-Smith, C.** 2002. Investigation of the effects of phyto-oestrogen supplements on cyclical breast pain. *Conference on Integration of Complementary/Alternative Medicine in Scotland*, Edinburgh, September 2002. P
- Rokka, V.-M., Avrova, A.O., Hein, I., Gilroy, E., Cardle, L. & Birch, P.R.J.** 2002. Unravelling signalling processes in the potato R gene resistance response to *Phytophthora infestans*. *GILB'02 conference. Late blight: Managing the global threat*, Hamburg, Germany, 2002, p.36. P
- Rønne, R., McCaig, A.E., Griffiths, B.S. & Prosser, J.I.** 2002. Impact of protozoan grazing on bacterial community structure in soil microcosms. *Applied and Environmental Microbiology* 68, 6094-6105. J
- Ruiz del Castillo, M.L., Dobson, G., Brennan, R. & Gordon, S.** 2002. Fatty acid composition in seeds of blackcurrant genotypes. *Acta Horticulturae* 585, 531-536. P
- Ruiz del Castillo, M.L., Dobson, G., Brennan, R.M. & Gordon, S.L.** 2002. Genotypic variation in fatty acid content of blackcurrant seeds. *Journal of Agricultural and Food Chemistry* 50, 332-335. J
- Ruiz del Castillo, M.L. & Dobson, G.** 2002. Influence of stage of ripeness on the enantiomeric distribution of chiral terpenes in blackcurrant fruits (*Ribes nigrum* L.). *Journal of Food Science* 67, 3284-3288. J
- Ruiz del Castillo, M.L. & Dobson, G.** 2002. Varietal differences in terpene composition of blackcurrant (*Ribes nigrum* L.) berries by solid phase microextraction gas chromatography. *Journal of the Science of Food and Agriculture* 82, 1510-1515. J
- Schouten, A., Tenberge, K.B., Vermeer, J., Stewart, J., Wagelmakers, L., Williamson, B. & Van Kan, J.A.L.** 2002. Functional analysis of an extracellular catalase of *Botrytis cinerea*. *Molecular Plant Pathology* 3, 227-238. J
- Scrimgeour, C.M.** 2002. Measurement and applications of stable isotopes in fatty acids. *European Journal Lipid Science and Technology* 104, 57-59. J
- Scrimgeour, C.M.** 2002. Oils and Fats authentication (Book Review). *Lipid Technology Newsletter*, Blackwell Publishing Ltd, Oxford, UK, 132. O
- Shi, B.-J., Palukaitis, P. & Symons, R.H.** 2002. Differential virulence by strains of *Cucumber Mosaic Virus* is mediated by the 2b gene. *Molecular Plant-Microbe Interaction* 15, 947-955. J
- Simpson, C.G., Thow, G., Clark, G.P., Jennings, N., Watters, J.A. & Brown, J.W.S.** 2002. Mutational analysis of a plant branchpoint and polypyrimidine tract required for constitutive splicing of a mini-exon. *RNA* 8, 47-56. J
- Singh, S., Barker, H. & Kumar, S.** 2002. Prospects of penicillinase ELISA for detection of plant viruses in the developing countries. *Potato* 1, 433-438. J
- Soards, A.J., Murphy, A.M., Palukaitis, P. & Carr, J.P.** 2002. Virulence and differential local and systemic spread of *Cucumber mosaic virus* in tobacco are affected by the CMV 2b protein. *Molecular Plant-Microbe Interaction* 15, 647-653. J
- Sprent, J.I.** 2002. Knobs, knots and nodules - the renaissance in legume symbiosis research. *New Phytologist* 153, 2-6. J
- Squire, G.R., Begg, B. & Young, M.W.** 2002. Persistence and effect of GM and non-GM feral OSR as arable seed-bank and wayside plants. *AAB Meeting*, Reading, 9-11 September 2002. P
- Squire, G.R., Bausenwein, U., Begg, B. & Sinclair, W.** 2002. Plant process and community properties in species-

- rich grassland. *Proceedings of Scottish Agricultural Workshop*, 9-10 October, 2001. P
- Stamati, K., Blackie, S., Brown, J.W.S. & Russell, J.** 2002. Population genetics of sub-Arctic willow (*S. lanata*, *S. lapponum* and *S. herbacea*). *Plant Conservation in Scotland*, 2002. P
- Stamati, K., Blackie, S., Russell, J. & Brown, J.W.S.** 2002. Small nucleolar RNA (snoRNA) genes as molecular markers for polyploidy and hybridisation. *Plant Conservation in Scotland*, 2002. P
- Stewart, H.E. & Solomon-Blackburn, R.M.** 2002. Assessing resistance to late blight: Methods used at the Scottish Crop Research Institute. *GILB Conference 2002 (Poster) (Abstracts in www.cipotato.org/gilb)*, Hamburg, 11-13 July 2002. P
- Stoll, M., Jones, H.G. & Infante, J.M.** 2002. Leaf gas exchange and growth in red raspberries is reduced when part of the root system is dried. *Acta Horticulturae* 585, 671-676 P
- Sturrock, C.J., Ritz, K., Samson, W.B., Bown, J., Staines, H.J., Palfreyman, J.W., Crawford, J.W. & White, N.A.** 2002. The effects of fungal inoculum arrangement (scale and context) on emergent community development in an agar model system. *FEMS Microbiology Ecology* 39, 9-16. J
- Stutter, M., Billet, M.F., Deeks, L., Bengough, A.G., Zhang, X., Young, I.M., Crawford, J.W., Watson, H. & Edwards, A.** 2002. Scale dependency and solute transport in soils from temperate upland catchments. *17th World Congress of Soil Science*, Bangkok, Thailand, 14-21 August 2002. P
- Stutter, M., Deeks, L., Billet, M.F., Bengough, A.G., Zhang, X., Young, I.M., Crawford, J.W., Watson, H. & Edwards, A.** 2002. Solute transport through natural upland soils. *Biogeomon 2002*, 4th International Symposium on Ecosystem Behaviour. P
- Swanson, M.M., Barker, H. & MacFarlane, S.A.** 2002. Rapid vascular movement of tobraviruses does not require coat protein: evidence from mutated and wild type viruses. *Annals of Applied Biology* 141, 259-266. J
- Swanson, J.S., Sopena, A., Moralejo, M.A. & Molina-Cano, J.-L.** 2002. Germination and malting properties of mutants derived from the malting barley cv. Triumph. *Cereal Chemistry* 79, 392-396. J
- Tahiri-Alaoui, A., Lingua, G., Avrova, A.O., Sampò, S., Fusconi, A., Antoniw, J.F. & Berta, G.** 2002. A cullin gene is induced in tomato roots forming arbuscular mycorrhizae. *Canadian Journal of Botany* 80, 1-10. J
- Talame, V., Sanguineti, M.C., Chiapparino, E., Tuberosa, R., Forster, B.P. & Ellis, R.P.** 2002. Identification of agronomically valuable QTL alleles in wild barley (*Hordeum spontaneum*). *Proceedings of Symposium on the Use of mutated genes in crop improvement and functional genomics*, FAO/IAEA, Vienna, 3-7 June 2002. P
- Taleb, N., Avrova, A.O., Stewart, H.E., Cardle, L., Jaufeerally-Fakim, Y. & Birch, P.R.J.** 2002. Unravelling the molecular mechanisms of resistance in potato to *Phytophthora infestans* the causal agent of late blight. *Plant Pathology and Global Food Security*, Imperial College, London, UK, 2002. P
- Taliantsky, M.E. & Robinson, D.J.** 2002. Genus *Umbravirus*. In: Tidona, C.A. (ed.). *The Springer Index of Viruses*. Springer-Verlag, Berlin, R
- Taliantsky, M.E.** 2002. RNA silencing in plants: application for biotechnology. *1st International Congress on Biotechnology: State of Art and Prospects of Development*, Moscow, Russia, 14-18 October 2002. P
- Taliantsky, M.E., Mayo, M.A., Barker, H., Kim, S.-H., Kalinina, N., McGeachy, K.D. & Fraser, G.L.** 2002. Suppressor-independent escape of *Potato leafroll virus* from amplicon-mediated RNA silencing. *Abstracts of the Xth International Congress of Virology*, Paris, July, 2002. P
- Thirumala-Devi, K., Mayo, M.A., Reddy, G. & Reddy, D.V.R.** 2002. Occurrence of aflatoxins and Ochratoxin A in Indian poultry feeds. *Journal of Food Protection* 65, 1338-1340. J
- Thirumala-Devi, K., Mayo, M.A., Hall, A.J., Craufurd, P.Q., Wheeler, T.R., Waliyar, F., Subrahmanyam, A. & Reddy, D.V.R.** 2002. Production of polyclonal antibodies to aflatoxin M1 and their applicability for assaying contamination in milk and milk-based confectionery. *Journal of Agricultural and Food Chemistry* 50, 933-937. J
- Thomas, W.T.B., Swanston, J.S. & Powell, W.** 2002. Barley DNA sequences and their uses. *Patent PCT/GB99/00602*. T
- Thomas, W.T.B., Forster, B.P. & Gertsson, B.** 2002. Doubled haploids in breeding. *Manual for FAO/IAEA* FAO/IAEA, Vienna, 300pp. O
- Thomas, W.T.B.** 2002. Molecular breeding for malting barley. *EUCARPIA Cereals Section Abstracts*, Salsomaggiore, 21-25 November 2002. P
- Thomas, W.T.B.** 2002. More water of life. *Food Link News* 40, 10. O
- Thomas, W.T.B.** 2002. Prospects for molecular breeding of barley. *Genotype - phenotype: narrowing the gaps*, AAB Conference, Royal Agricultural College, Cirencester, 16-18 December 2002. P
- Torrance, L., Cowan, G.H. & Ziegler, A.** 2002. Potato Mop-Top virus triple gene block protein interactions. *Abstract for the Xth International Congress of Virology*, Paris, France, 27 July-1 August, 2002. P
- Toth, I.K., Brierley, J.L., Avrova, A.O., Hyman, L.J., Sullivan, L. & Pérombelon, M.C.M.** 2002. Relationship between potato seed tuber contamination by *Erwinia carotovora* subsp. *atroseptica*, blackleg development and progeny tuber contamination. *Plant Pathology* 52, 119-126. J
- Toth, I.K., Birch, P.R.J., Bell, K.S. & Holeva, M.C.** 2002. Soft Rot Erwinias: From Genes to Genomes (A Review). *Molecular Plant Pathology* 4, 17-30. J
- Toth, R.L., Pogue, G.P. & Chapman, S.N.** 2002. Improvement of the movement and host properties of a plant virus vector through DNA shuffling. *The Plant Journal* 30(5), 593-600. J
- Valentine, T., Roberts, I.M. & Oparka, K.J.** 2002. Inhibition of tobacco mosaic virus (TMV) in lateral roots is dependant on the propagation of a meristem-derived signal. *Protoplasma* 219, 184-196. J
- van de Graaf, P., Lees, A.K. & Duncan, J.M.** 2002. Biology and control of *Spongospora subterranea* causal agent of powdery scab and vector of PMTV. *Proceedings of the 15th Triennial Conference of the European Association for Potato Research*, Hamburg, Germany, 14-19 July 2002. P
- van de Graaf, P., Lees, A.K. & Duncan, J.M.** 2002. Biology and control of *Spongospora subterranea* f.sp. *subter-*

Publications

- ranea, the vector of PMTV. *Abstracts of the 2002 International Working Group on Plant Viruses with Fungal Vectors, 5th Symposium, Zurich, Switzerland, 22-25 July 2002.* P
- van de Graaf, P., Lees, A.K. & Duncan, J.M.** 2002. Effect of environmental factors on infection of potato by *Spongospora subterranea* f.sp. *subterranea*, the vector of PMTV. *Abstracts of the 2002 International Working Group on Plant Viruses with Fungal Vectors, 5th Symposium, Zurich, Switzerland, 22-25 July, 2002.* P
- van de Graaf, P., Lees, A.K. & Duncan, J.M.** 2002. Effect of inoculum level and environmental conditions on powdery scab and root galling in potato. *Proceedings Crop Protection in Northern Britain, 19-20 February 2002, Dundee, 281-286.* P
- van de Graaf, P., Joseph, M.E., Chartier-Hollis, J.M. & O'Neill, T.M.** 2002. Prepenetration stages in infection of clematis by *Phoma clematidina*. *Plant Pathology* 51, 331-337. J
- van de Graaf, P., O'Neill, T.M., Chartier-Hollis, J.M. & Joseph, M.E.** 2002. Susceptibility of clematis varieties and species to stem infection by *Phoma clematidina* as an indicator for resistance to wilt. *The Clematis*, 71-83. O
- van den Berg, R.G., Bryan, G.J., del Rio, A. & Spooner, D.M.** 2002. Reduction of species in the wild potato *Solanum* section *Petota* series *Longipedicellata*: AFLP, RAPD and chloroplast SSR data. *Theoretical and Applied Genetics* 105, 1109-1114. J
- Vandenkoornhuyse, P., Husband, R., Daniell, T.J., Watson, I.J., Duck, J.M., Fitter, A.H. & Young, J.P.W.** 2002. Arbuscular mycorrhizal community composition associated with two plant species in a grassland ecosystem. *Molecular Ecology* 11, 1555-1564. J
- Vellios, E.K., Duncan, G., Brown, D.J.F. & MacFarlane, S.A.** 2002. Immunogold localisation of tobavirrus 2b nematode transmission helper protein associated with virus particles. *Virology* 300, 118-124. J
- Vellios, E.K., Brown, D.J.F. & MacFarlane, S.A.** 2002. Substitution of a single amino acid in the PEBV 2b protein affects nematode transmission. *Journal of General Virology* 83, 1771-1775. J
- Vitousek, P.M., Cassman, K., Cleveland, C., Crews, T., Field, C.B., Grimm, N.B., Howarth, R.W., Narino, R., Martinelli, L., Rastetter, E.B. & Sprent, J.I.** 2002. Towards an ecological understanding of biological nitrogen fixation. *Biogeochemistry* 57/58, 1-45. J
- Wall, J.W., Skene, K.R. & Neilson, R.** 2002. Nematode community and trophic structure along a sand dune succession. *Biology and Fertility of Soils* 35, 293-301. J
- Wang, Y., Gaba, V., Yang, J., Palukaitis, P. & Gal-On, A.** 2002. Characterization of synergy between cucumber mosaic virus and potyviruses in cucurbit hosts. *Phytopathology* 92, 51-58. J
- Wardrop, J., Snape, J., Powell, W. & Machray, G.C.** 2002. Constructing plant radiation hybrid panels. *Plant Journal* 31, 223-228. J
- Waugh, R., Dear, P.H., Powell, W. & Machray, G.C.** 2002. Physical education (new technologies for mapping plant genomes). *Trends in Plant Sciences* 7, 521-523. J
- Wheatley, R.E., Banks, G., Raven, J.A. & Ritz, K.** 2002. Spatial-temporal variations in nitrification rates and plant yields. *8th New Phytologist Symposium (NPS 2002)*, Infocenter at the Viikki Biocenter, Helsinki, Finland. June 9-14, 2002. P
- Wheatley, R.E.** 2002. The consequences of volatile organic compound mediated bacterial and fungal interactions. *Antonie van Leeuwenhoek* 81, 357-364. J
- Whigham, D.F., O'Neill, J., McCormick, M., Smith, C., Rasmussen, H., Caldwell, B. & Daniell, T.J.** 2002. Interactions between decomposing wood, mycorrhizas, and terrestrial orchid seeds and protocorms. In: Kindlmann, P., Willems, J.H. & Whigham, D.F. (eds.). *Trends and fluctuations and underlying mechanisms in terrestrial orchid populations*. Backhuys Publishers, Leiden, The Netherlands, 117-131. R
- Whisson, S.C., Avrova, A.O. & Birch, P.R.J.** 2002. Physical mapping of the *Phytophthora infestans* genome. *Late Blight: Managing the Global threat*, Hamburg, Germany, July 11-13, 2002. P
- White, G.M., Boshier, D.H. & Powell, W.** 2002. Increased pollen flow counteracts fragmentation in a tropical dry forest: an example from *Swietenia humilis* Zucc. *Proceedings of the National Academy of Sciences, USA* 99, 2038-2042. J
- Wilson, R., Fernie, C.E., Scrimgeour, C.M., Lyall, K., Smyth, L. & Riemersma, R.A.** 2002. Dietary epoxy fatty acids are absorbed in healthy women. *European Journal of Clinical Investigation* 32, 79-83. J
- Wilson, R., Lyall, K., Smyth, L., Fernie, C.E. & Riemersma, R.A.** 2002. Dietary hydroxy fatty acids are absorbed in humans: Implications for the measurement of 'oxidative stress' in vivo. *Free Radical Biology and Medicine* 32, 162-168. J
- Wishart, J., Phillips, M.S. & Blok, V.C.** 2002. Ribosomal intergenic spacer: a Polymerase Chain Reaction Diagnostic for *Meloidogyne chitwoodi*, *M. fallax* and *M. hapla*. *Phytopathology* 92, 884-891. J
- Witte, C.-P., Tiller, S.A., Taylor, M.A. & Davies, H.V.** 2002. Addition of nickel to Murashige & Skoog medium in plant tissue culture activates urease and may reduce metabolic stress. *Plant Cell, Tissue and Organ Culture* 68, 103-104. J
- Witte, C.-P., Tiller, S.A., Taylor, M.A. & Davies, H.V.** 2002. Leaf urea metabolism in potato: Urease activity profile, and patterns of recovery and distribution of ¹⁵N after foliar urea application in wild-type and urease-antisense transgenics. *Plant Physiology* 128, 1129-1136. J
- Wolff, R.L. & Christie, W.W.** 2002. Structures, practical sources (gymnosperm seeds), gas-liquid chromatographic data (equivalent chain lengths), and mass spectrometric characteristics of all-cis 5-olefinic acids. *European Journal of Lipid Science and Technology* 104, 234-244. J
- Wood, N.T.** 2002. Pin-pointing the molecular basis of tropism in plants (Review). *Trends in Plant Science* 7, 149. O
- Wood, N.T.** 2002. Synthetic promoters illuminate roles of *cis*-acting elements in plant defence (Review). *Trends in Plant Science* 7, 288. O
- Wood, N.T.** 2002. Transcript profiling takes a stroll through the wood (Review). *Trends in Plant Science* 7, 99. O
- Wood, N.T.** 2002. Unravelling the molecular basis of viral suppression of PTGS (Review). *Trends in Plant Science* 7, 384-385. O

- Woodford, J.A.T., Fenton, B., Barker, H., Pickup, J., Foster, G.N. & Cole, L.** 2002. Appraisal of Options for Aphid Monitoring and Control to manage Virus Transmission in Scottish Seed Potato Crops. *Final Report to SEERAD on Policy FF567* SEERAD, Edinburgh, 28pp. O
- Woodford, J.A.T., Fenton, B., Barker, H., Pickup, J., Foster, S.P., Evans, K.A. & Coll, C.** 2002. Monitoring aphid-transmitted viruses in Scottish seed potato crops. *Proceedings of Crop Protection in Northern Britain Conference 2002*, Dundee, 231-236. P
- Woodhead, M., Russell, J., Squirrell, J., Hollingsworth, P.M., Cardle, L., Ramsay, L., Gibby, M. & Powell, W.** 2002. The application of EST-derived SSRs in plant conservation genetics. *Plant Conservation in Scotland Conference*, 2002. P
- Woodhead, M., Russell, J.R., Ramsay, L., Cardle, L. & Powell, W.** 2002. The development and utility of SSRs derived from expressed sequence tags. Poster. *Ecological Genetics Group Meeting*, 2002. P
- Wright, G.M. & Marshall, B.** 2002. ASIS: Arable Seed Identification System. A joint Scottish Crop Research Institute/University of Abertay Dundee development. *Poster for University of Abertay Dundee Students and the Scottish Crop Research Institute*. T
- Wright, I.A., Dalziel, A.J.I., Ellis, R.P. & Hall, J.G.** 2002. An investigation of the status and conservation of characteristic and traditional animal seeds and plant varieties and the potential implications for biodiversity in Scotland. *Final Report Flexible Funded Project* SEERAD, Edinburgh, 83pp. O
- Wu, K., Nunan, N., Ritz, K., Crawford, J.W. & Young, I.M.** 2002. Simulation of spatial distribution of bacteria in relation to 3-D heterogeneous soil structure. *17th World Congress of Soil Science*, Bangkok, Thailand, 14-21 August 2002. P
- Young, M. & Jones, H.G.** 2002. An investigation of factors affecting yield of red raspberry (*Rubus*) in Tayside. *Acta Horticulturae*, 585, 683-687 P
- Zhang, X., Bengough, A.G., Crawford, J.W. & Young, I.M.** 2002. A lattice BGK model for solute transport equation. *Advances in Water Resources* 25, 1-8. J
- Zhang, X., Bengough, A.G., Deeks, L., Crawford, J.W. & Young, I.M.** 2002. A novel 3-D Lattice Boltzmann Model for solute in variably transport in variably saturated porous media. *Water Resources Research* 38, 1167. J
- Zhang, X., Bengough, A.G., Crawford, J.W. & Young, I.M.** 2002. Efficient methods for solving water flow under prescribed flux infiltration. *Journal of Hydrology* 260, 75-87. J
- Zhang, X., Bengough, A.G., Crawford, J.W. & Young, I.M.** 2002. On boundary conditions in the Lattice Boltzmann model for advection and anisotropic dispersion equation. *Advances in Water Resources* 25, 601-609. J
- Zheng, J., Pan, C., Furlanetto, L., Neilson, R. & Brown, D.J.F.** 2002. The morphology of the odontophore of *Longidorus litchii* Xu and Cheng, 1992 (*Nematoda: Longidoridae*). *Russian Journal of Nematology* 10, 123-126. J
- Ziegler, A. & Torrance, L.** 2002. Applications of recombinant antibodies in plant pathology. *Molecular Plant Pathology* 3, 401-407. J