

Publications

Publications 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.

- Adams, L.K., Bremner, D.H., Benson, E.E., Staines, H.J., Deighton, N. & Millam, S.** 1998. Effects of 4-hydroxy-2-nonenal and malondialdehyde on dedifferentiated plant tissue cultures. In *vitro Biology Congress*, Las Vegas, May 1998. P
- Adams, M.J., Antoniw, J.F., Barker, H., Jones, A.T., Murant, A.F. & Robinson, D.** 1998. *Descriptions of Plant Viruses on CD-ROM*. Association of Applied Biologists, Wellesbourne, Warwick. R
- Adams, M.J., Antoniw, J.F., Barker, H., Robinson, D.J., Jones, A.T. & Murant, A.F.** 1998. Data on plant viruses: a new CD-Rom resource. *7th International Congress of Plant Pathology*, Edinburgh, 1998, No.4.3.6. P
- Alford, D.V., Boag, B., Johns, P.M. & Yeates, G.W.** 1998. Report on the OECD Workshop on terrestrial flatworms. *Pedobiologia* **42**, 385-388. J
- Almeida, M.T.M.De., Brown, D.J.F., Abrantes, I.M.De.O. & Santos, M.S.N.D.A.** 1998. Characterization of two *Paratrichodorus* species. *Nematologica* **44**, 453. J
- Anand, S.C., Cook, R. & Dale, M.F.B.** 1999. Development of varieties resistant and tolerant to cyst nematodes. In: Sharma, S.B. (ed.). *The Cyst Nematodes*. Kluwer Academic Publishers, London, 293-321. R
- Angel, J. & Mayo, M.A.** 1998. Análisis de la secuencia de nucleótidos del gen de la capside y la polimerasa entre diferentes aislamientos del virus motoso del enanismo de la frambuesa. *Biotecnología* **1**, 40-45. J
- Angel, J. & Mayo, M.A.** 1998. Resistencia transgenica para el control del virus motoso del enenismo de la frambuesa (raspberry bushy dwarf virus - RBDV). *Revista Colombiana de Biotecnología* **1**, 35-44. J
- Arli Sokmen, M., Barker, H. & Torrance, L.** 1998. Factors affecting the detection of potato mop-top virus in potato tubers and improvements of test procedures for more reliable assays. *Annals of Applied Biology* **133**, 55-63. J
- Armstrong, M.R., Blok, V.C. & Phillips, M.S.** 1998. The mitochondrial genome of the potato cyst nematode *Globodera pallida*: structure and implications. *Offered Papers in Nematology, AAB Meeting, Linnean Society of London*. O
- Armstrong, M.R., Blok, V.C. & Phillips, M.S.** 1998. The potato cyst nematode *Globodera pallida* has a multipartite mitochondrial DNA. *24th International Nematology Symposium*, Dundee, 1998, 5. O
- Atabekov, J.G., Malyshenko, S.I., Morozov, S.Yu., Taliiansky, M.E., Solovyev, A.G., Agranovsky, A.A. & Shapka, N.A.** 1999. Identification and study of TMV movement function by complementation tests. *Royal Society Transactions* **354**, 629-635. J
- Augustin, N.H., Mugglestone, M.A. & Buckland, S.T.** 1998. The role of simulation in modeling spatially correlated data. *Environmetrics* **9**, 175-196. J
- Avrova, A.O., Birch, P.R.J., Toth, R. & Lyon, G.D.** 1998. Towards the molecular determination of durable resistance to *Phytophthora infestans* in the cultivated potato. *Proceedings 4th European Conference on Fungal Genetics*, Leon, Spain, April 4-7 1998. P
- Avrova, A.O., Birch, P.R.J., Toth, R., Lyon, G.D. & Duncan, J.M.** 1998. Novel potato genes involved in defence against *Phytophthora infestans* are implicated in apoptosis. *Proceedings 7th International Congress of Plant Pathology*, Edinburgh, Scotland, 9-16 August, 1998. P
- Azcón-G-Aguilar, R., Handley, L.L. & Scrimgeour, C.M.** 1998. The $\delta^{15}\text{N}$ of lettuce and barley are affected by AM status and external concentration of N. *New Phytologist* **138**, 19-26. J
- Baker, S.J., Newton, A.C. & Gurr, S.J.** 1998. Temporary partial breakdown of *mlo*-resistance. *International Congress for Plant Pathology*, Edinburgh 9-16 August 1998. www.bspp.org.uk/icpp98/abstracts/1.3/33.html. P
- Baker, S.J., Newton, A.C., Crabb, D., Guy, D.C., Jeffries, R.A., MacKerron, D.K.L., Thomas, W.T.B. & Gurr, S.J.** 1998. Temporary partial breakdown of *mlo*-resistance in spring barley by sudden relief of soil water-stress under field conditions: the effects of genetic background and *mlo* allele. *Plant Pathology* **47**, 401-410. J
- Bakker, E.H., Blok, V.C., Stokkermans, J.P.W.G., Burrows, P.R., Phillips, M.S. & Jones, J.T.** 1998. Characterisation of abundantly expressed genes from the two species of potato cyst nematode (PCN) *Globodera rostochiensis* and *G. pallida*. *Abstracts of the BSP Spring Meeting*, Exeter, 1998, 51. P
- Bakker, E.H., Blok, V.C., Stokkermans, J.P.W.G., Burrows, P.R., Phillips, M.S. & Jones, J.T.** 1998. EST analysis of genes expressed in the two species of potato cyst nematode (PCN) *Globodera rostochiensis* and *G. pallida*. *Abstracts of the 24th International Nematology Symposium*, Dundee, 1998, 6. P
- Barker, H.** 1998. Pathogen-derived resistance to viruses in potato - problems and perspectives. *Sodno Kmetijstvo (Contemporary Agriculture)* **31**, 446-448. J
- Barker, H. & Torrance, L.** 1998. Importance of biotechnology for germplasm health and quarantine. In: Callow, J.A., Ford-Lloyd, B.V. & Newbury, H.J. (eds.). *Biotechnol-*

- ogy and Plant Genetic Resources: Conservation and Use.* CAB International, 235-254. R
- Barker, H., Franco-Lara, L., McGeachy, K.D., Mayo, M.A. & Commandeur, U.** 1998. Transformation of tobacco and potato with full-length cDNA to potato leafroll virus. *Abstracts of the 7th International Congress of Plant Pathology*, Edinburgh, 1998 1.12.21. P
- Barker, H., Reavy, B. & McGeachy, K.D.** 1998. High level of resistance in potato to potato mop-top virus induced by transformation with the coat protein gene. *European Journal of Plant Pathology* **104**, 737-740. J
- Barker, H., Reavy, B., McGeachy, K.D. & Dawson, S.** 1998. A unique form of transgenic resistance to potato mop-top virus induced by transformation with the coat protein gene. *Abstract from the 2nd Symposium on Plant Physiology*, Slovenia, 1998, 28. P
- Bedrock, C.N., Cheshire, M.V., Williams, B.L., Solntseva, I., Chapman, S.J., Chudek, J.A. & Goodman, B.A.** 1998. Identification by ^{15}N CPMAS NMR spectroscopy of nitrogenous components of fungal and bacterial origin immobilised in wheat straw during decomposition in soil. *Soil Biology and Biochemistry* **30**, 113-115. J
- Bell, K.S., Claxton, J.R., Roberts, J., Cullen, D.W., Williams, N.A., Harrison, J.G., Toth, I.K., Cooke, D.E.L. & Duncan, J.M.** 1998. Detection and quantification of *Spongopora subterranea* f. sp. *subterranea* by specific DNA amplification. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Bell, K.S., Claxton, J.R., Roberts, J., Cullen, D.W., Williams, N.A., Harrison, J.G., Toth, I.K., Cooke, D.E.L. & Duncan, J.M.** 1999. Detection and quantification of *Spongopora subterranea* f. sp. *subterranea* by specific DNA amplification. *Proceedings Crop Protection in Northern Britain*, 1999, 225-260. P
- Bendezu, I., Blok, V.C., Phillips, M.S. & Evans, K.** 1998. Two approaches for isolating potential (a)virulent genetic markers: AFLP and RAPD-PCR. Offered papers in Nematology. *AAB Meeting Linnean Society of London*. O
- Bengough, A.G., Kirby, J.M., O'Sullivan, M.F. & Keatch, R.P.** 1998. Mechanics of root growth in soil. *Abstracts of the Fifth International Symposium on Root Structure and Function*, Stara Lesna, Slovakia, 70. P
- Benson, E.E., Magill, W.J., Deighton, N., Bremner, D.H. & Adams, L.K.** 1998. Cellular mechanisms *in vitro* studies of free radical generated lipid peroxidation products in plant tissue culture systems. *In vitro Biology Congress*, Las Vegas, May 1998. P
- Bingham, I.J., Bengough, A.G. & O'Sullivan, M.F.** 1998. Response of cereal plants to spatial variation in soil strength. *Journal of Experimental Botany* **49**, 35. P
- Birch, A.N.E., Geoghegan, I.E., Majerus, M.E.N., McNicol, J.W., Hackett, C., Gatehouse, A.M.R. & Gatehouse, J.A.** 1999. Tri-trophic interactions involving pest aphids, predatory 2-spot ladybirds and transgenic potatoes expressing snowdrop lectin for aphid resistance. *Molecular Breeding* **5**, 75-83. J
- Birch, P.R.J., Avrova, A.O., Duncan, J.M., Lyon, G.D. & Toth, R.L.** 1999. Isolation of potato genes which are induced during an early stage of the hypersensitive response to *Phytophthora infestans*. *Molecular Plant-Microbe Interactions* **12**, 356-361. J
- Birch, P.R.J., Avrova, A.O., Toth, R. & Lyon, G.D.** 1998. Apoptosis-related pathways are induced by *Phytophthora infestans* in a resistant potato cultivar. *Proceedings 24th International Nematology Symposium*, Dundee 4-9 August 1998, 10. P
- Birch, P.R.J., Hyman, L.J., Wood, J. R. & Toth I.K.** 1998. Design and utilization of a soft rot *Erwinia*-specific PCR-based detection system. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Blackwell, A., Lock, K.A., Boag, B., Gordon, S.C. & Marshall, B.** 1998. Geostatistical analysis of *Culicoides impunctatus* biting midge larvae. *Ceratopogrid Workshop, International Congress of DipteroLOGY*, Oxford, September 1998. P
- Blair, L., Perry, R.N., Oparka, K.J. & Jones, J.T.** 1999. Activation of transcription during the hatching process of the potato cyst nematode *Globodera rostochiensis*. *Nematology* **1**, 103-111. J
- Blok, V.C., Malloch, G., Harrower, B., Phillips, M.S. & Vrain, T.C.** 1998. Interspecific variation in ribosomal DNA in populations of potato cyst nematode *Globodera pallida*. *Journal of Nematology* **30**, 262-274. J
- Boag, B. & Yeates, G.W.** 1998. Soil nematode biodiversity in terrestrial ecosystems. *Biodiversity and Conservation* **7**, 617-630. J
- Boag, B., Jones, H.D., Evans, K.A., Neilson, R., Yeates, G.W. & Johns, P.M.** 1998. The application of GIS techniques to estimate the establishment and spread of *Artioposthia triangulata* in Scotland. *Pedobiologia* **42**, 504-510. J
- Boag, B., Neilson, R., Robinson, D., Scrimgeour, C.M. & Handley, L.L.** 1998. Wild rabbit host and some parasites show trophic-level relationships for $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$: a first report. *Isotopes in Environment and Health Studies* **34**, 81-85. J
- Boag, B., Rodger, S.J., Wright, G.M., Neilson, R., Hebdon, P., Squire, G.R. & Lawson, H.M.** 1998. Influence of reduced agrochemical inputs on plant-parasitic nematodes. *Annals of Applied Biology* **133**, 81-89. J
- Boag, B., Yeates, G.W. & Johnns, P.M.** 1998. Limitations to the distribution and spread of flatworms with special reference to the New Zealand flatworm *Artioposthia triangulata*. *Pedobiologia* **42**, 495-503. J
- Bonkowski, M., Cheng, W., Alphei, J., Griffiths, B.S. & Scheu, S.** 1998. Microbial-faunal interactions in the rhizosphere and effects on plant growth. *16th World Congress of Soil Science*, Montpellier, France. P
- Bonkowski, M., Griffiths, B.S. & Ritz, K.** 1998. Food preferences of earthworms for soil fungi. *Proceedings of 6th International Symposium on Earthworm Ecology*, Vigo, Spain. P
- Bradshaw, J.E., Hackett, C.A., Meyer, R.C., Milbourne, D., McNicol, J.W., Phillips, M.S. & Waugh, R.** 1998. Identification of AFLP and SSR markers associated with quantitative resistance to *Globodera pallida* (stone) in tetraploid potato (*Solanum tuberosum* subsp. *tuberosum*) with a view to marker assisted selection. *Theoretical and Applied Genetics* **97**, 202-210. J
- Bradshaw, J.E., Dale, M.F.B., Swan, G.E.L., Todd, D. & Wilson, R.N.** 1998. Early-generation selection between and within pair crosses in a potato (*Solanum tuberosum* subsp.

Publications

- tuberosum*) breeding programme. *Theoretical and Applied Genetics* **97**, 1331-1339. J
- Bradshaw, N.J. & Cullen, D.W.** 1998. Epidemiology of the soil-borne phase of potato tuber blemish disease. *Review of MAFF-funded R & D programme HP01: Potatoes-Crop Protection*, London. R
- Bragard, C., Delfosse, P., Reddy, A.S., Henry, M. & Mayo, M.A.** 1998. A broad spectrum digoxigenin-labelled cDNA probe for the detection of pecluviruses infecting graminaceous hosts. *Abstracts of 8th Conference on Virus Diseases of Graminae in Europe*, Goslar, Germany, 1998. P
- Bragard, C., Mayo, M.A. & Duncan, G.H.** 1998. Production of virus-like particles in transgenic cells expressing the coat protein gene of Indian peanut clump virus. *Abstracts of the International Congress of Plant Pathology*, Edinburgh, 1998, No 1.12.14. P
- Brasier, C.M., Cooke, D.E.L. & Duncan, J.M.** 1999. Origin of a new *Phytophthora* pathogen through interspecific hybridisation. *Proceedings of the National Academy of the Sciences* **96**, 5878-5883. P
- Brennan, R.M., Gordon, S. & Williamson, B.** 1998. The impact of breeding and genetics on berry fruit quality. In: Hagg, M., Ahvenainen, R., Evers, A.M. & Tilikkala, K. (eds.). *Agri-Food Quality II - Quality Management of Fruits and Vegetables*. Cambridge: Royal Society of Chemistry, 353-356. P
- Brown, D.J.F. & Weischer, B.** 1998. Specificity, exclusivity and complementarity in the transmission of plant viruses by plant parasitic nematodes: an annotated terminology. *Fundamental and Applied Nematology* **21**, 1-11. J
- Brown, D.J.F.** 1998. Nematode transmission of viruses to berry fruits. *Proceedings of the 30th Annual Meeting of the Organization of Tropical American Nematologists*, Mendoza, Argentina, 1998, 97. P
- Brown, D.J.F., Kunz, P., Grunder, J. & Robertson, W.M.** 1998. Differential transmission of cherry rosette nepovirus by populations of *Longidorus arthensis* (Nematoda: Longidoridae) with a description of the association of the virus with the odontostyle of its vector. *Fundamental and Applied Nematology* **21**, 673-677. J
- Brown, J.W.S., Simpson, C.G., Hedley, P.E., McQuade, C.M., Lyon, J.M. & Machray, G.C.** 1998. Splicing of a mini-exon in potato invertase pre-mRNAs. *RNA '98, Abstracts of the Third Annual Meeting of the RNA Society*, Madison, USA, 178. P
- Bryan, G.J., Dixon, A., Wiseman, G. & Gale, M.D.** 1998. A PCR-based method for the detection of hexaploid bread wheat adulteration of durum wheat and pasta. *Journal of Cereal Science* **28**, 135-145. J
- Bryan, G.J., Provan, J., McNicoll, J., Milbourne, D., De Jong, W. & Waugh, R.** 1999. Tools for assessing genetic diversity in potato and other Solanaceous plant species. *Plant and Animal Genome VII*, San Diego, USA, 197. P
- Bryan, G.J., Stephenson, P., Collins, A.J., Smith, J.B. & Gale, M.D.** 1999. Low levels of sequence polymorphism in hexaploid bread wheat. *Theoretical and Applied Genetics* **99**, 192-198. J
- Cardle, L., Waugh, R. & Marshall, D.** 1998. UK CROP-NET Barley Db. *BBSRC PAGA/GAIT Workshop*, Edinburgh, April 1998. P
- Cardoso, M.A., Provan, J., Powell, W., Ferreira, P.C.G. & DeOliveira, D.E.** 1998. High genetic differentiation among remnant populations of the endangered *Caesalpinia echinata* Lam. (Leguminosae-Caesalpinoideae). *Molecular Ecology* **7**, 601-608. J
- Christie, W.W.** 1998. Chromatographic and spectrometric methods for determination of fatty acid structure. In: Sánchez, J., Cerdá-Olmedo, E. & Martínez-Force, E. (eds.). *Advances in Plant Lipid Research. Proceedings of the 13th International Symposium on Plant Lipids*, Universidad de Sevilla, 3-8. P
- Christie, W.W.** 1998. Mass spectrometry of fatty acids with methylene-interrupted ene-yne systems. *Chemistry and Physics of Lipids* **94**, 35-41. J
- Christie, W.W.** 1998. Silver-ion high-performance liquid chromatography: some practical separations. *Lipid Technology* **10**, 113-115. O
- Christie, W.W., Hamilton, J.T.G. & Harper, D.B.** 1998. Mass spectrometry of fluorinated fatty acids in the seed oil of *Dichapetalum toxicarium*. *Chemistry and Physics of Lipids* **97**, 41-47. J
- Chudek, J.A., Geoghegan, I.E., Hunter, G., MacKay, R.L., Majerus, M.E.N., Moritz, S., McNicol, R.J. & Birch, A.N.E.** 1998. MRM, an alternative approach to the study of host/parasitoid relationships in insects. In: Blümich, B., Botto, R. & Fukushima, E. (eds.). *Spatially Resolved Magnetic Resonance: Methods and Applications in Material Science, Agriculture and Biomedicine*, 467-471. R
- Clegg, C., Ritz, K. & Griffiths, B.S.** 1998. Broad-scale analysis of soil microbial community DNA from upland grasslands. *Antonie van Leeuwenhoek* **73**, 9-14. J
- Clegg, C.D., Ritz, K. & Griffiths, B.S.** 1998. A broad-scale approach to the analysis of DNA from soil microbial communities. *New Frontiers 8th International Symposium on Microbial Ecology*, Halifax, Nova Scotia. P
- Cooke, D.E.L., Jung, T., Williams, N.A., Schubert, R., Bahnweg, G., Obwald, W. & Duncan J.M.** 1999. Molecular evidence supports *Phytophthora quercina* as a new species. *Mycological Research* **103**, 799-804. J
- Cooke, D.E.L., Williams, N.A. & Duncan, J.M.** 1999. Molecular phylogeny of the Peronosporales and Pythiales based on ITS regions of rDNA. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Crawford, J.W., Young, I.M. & Ritz, K.** 1998. Integrating microbial processes for risk evaluation at successive scales. *DTI Dissemination Meeting on Biological Treatment of Soil and Water*, Warwick. P
- Cullen, D.W. & Hirsch, P.R.** 1998. Simple and rapid method for direct extraction of microbial DNA from soil for PCR. *Journal of Soil Biology and Biochemistry* **30**, 983-993. J
- Cullen, D.W., Lees, A.K., Toth, I.K. & Duncan, J.M.** 1999. Development of a PCR assay for specific detection of the three main pathogens of potato blemish diseases. *Proceedings Crop Protection in Northern Britain*, Dundee, 1999, 261-265. P
- Cullen, D.W., Lees, A.K., Toth, I.K. & Duncan, J.M.** 1999. Specific detection of the three main pathogens of potato blemish diseases by PCR. *Abstracts of the 143rd Ordinary Society for General Microbiology Meeting*, Edinburgh, 1999, 57. P

- Cullen, D.W., Nicholson, P.S., Mendum, T.A. & Hirsch, P.R.** 1998. Monitoring genetically modified rhizobia in field soils using the polymerase chain reaction. *Journal of Applied Microbiology* **84**, 1025-1034. J
- Dale, M.F.B. & de Scurrah, M.** 1998. Breeding for resistance to the potato cyst nematodes *Globodera rostochiensis* and *Globodera pallida*: strategies, mechanisms and genetic resources. In: Marks, R.J.H. & Brodie, B.B. (eds.). *Potato Cyst Nematodes: Biology, Distribution and Control*. CAB International, 167-295. R
- Dale, M.F.B.** 1998. Breeding for PCN resistance in potatoes. *BPC Agronomists Conference '98 - PCN, Rhizoctonia & Wineworm*, March 1998, Peterborough, UK. P
- Dale, M.F.B., Griffiths, D.W. & Bain, H.** 1998. Effect of bruising on the glycoalkaloid and chlorogenic acid content of potato (*Solanum tuberosum*) tubers. *Journal of the Science of Food and Agriculture* **77**, 499-505. J
- Dale, M.F.B., Robinson, D.J. & Brown, D.J.F.** 1998. Effects of tobacco rattle tobaviruses in potato. *Nematologica* **44**, 478. J
- Dale, M.F.B., Robinson, D.J., Brown, D.J.F. & Todd, D.** 1998. Effects of tobacco rattle tobaviruses in potato. *Abstracts of the 24th International Symposium of the European Society of Nematologists*, August 1998, Dundee, UK. P
- Davies, H.V.** 1998. Prospects for manipulating carbohydrate metabolism in potato tubers. *Proceedings of AAB Conference on Protection and Production of Sugar Beet and Potato. Aspects of Applied Biology* **52**, 245-255. P
- Davies, H.V., Harris, N., Taylor, M.A., Jarvis, S., Ross, H.A., Millam, S., Blundy, M., Burrell, M. & Viola, R.** 1998. Inhibition of starch biosynthesis in transgenic plants with down-regulated fructokinase activity. *5th International Symposium on the Molecular Biology of the Potato*, Bodensee, 51. P
- Davies, H.V., Harris, N., Taylor, M.A., Jarvis, S., Ross, H.A., Millam, S., Blundy, M., Burrell, M. & Viola, R.** 1998. Inhibition of starch biosynthesis in transgenic plants with down-regulated fructokinase activity. *Abstracts of AAB Conference on Production and Uses of Starch*, Edinburgh. P
- Davies, H.V., Harris, N., Viola, R., Millam, S., Burry, G. & Stark, D.M.** 1998. Starch biosynthesis in potato tubers expressing a non-regulated *E. coli* ADPglucose pyrophosphorylase. *5th International Symposium on the Molecular Biology of the Potato*, Bodensee, Germany. P
- DeMaine, M.J.** 1998. Periderm cell size as a ploidy indicator in potato (*Solanum tuberosum* L. subspecies *tuberosum*). *Annals of Applied Biology* **133**, 307-312. J
- Deighton, N. & McDougall, G.J.** 1998. Coniferyl alcohol oxidase operates through a bound free radical intermediate. *Phytochemistry* **48**, 601-606. J
- Dellagi, A., Toth, I.K., Lyon, G.D. & Birch, P.R.J.** 1998. A novel approach to determining pathogenicity-related bacterial genes: differential display RT-PCR of *Erwinia carotovora* subsp. *atroseptica* and *Erwinia carotovora* subsp. *carotovora*. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Diop, M.T., Ndiaye, S.B., Ciancio, A., Phillips, M.S., Dabiré, K.R., Fould, S. & Mateille, T.** 1998. Basic elements for modelling the ecology of *Meloidogyne javanica* infestation by endospores of a Senegalese isolate of the parasite *Pasteuria penetrans*. *24th International Nematology Symposium*, Dundee, 1998, 26. O
- Dobson, G.** 1998. Identification of conjugated fatty acids as 4-methyl-1,2,4-triazoline-3,5-dione adducts. *Journal of the American Oil Chemists' Society* **75**, 137-142. J
- Dobson, G., Itabashi, Y., Christie, W.W. & Robertson, G.W.** 1998. Liquid chromatography with particle-beam electron-impact mass spectrometry of diacylglycerol nicotinates. *Chemistry and Physics of Lipids* **97**, 27-39. J
- Dobson, G., Itabashi, Y., Christie, W.W. & Robertson, G.W.** 1998. Molecular species composition of plant lipids by liquid chromatography-mass spectrometry of diacylglycerol nicotinates. In: Sánchez, J., Cerdá-Olmedo, E. & Martínez-Force, E. (eds.). *Advances in Plant Lipid Research. Proceedings of the 13th International Symposium on Plant Lipids*. Universidad de Sevilla, 9-11. P
- Donini, P., Stephenson, P., Bryan, G.J. & Koebner, R.M.D.** 1998. The potential of microsatellites for high throughput genetic diversity assessment in wheat and barley. *Genetic Resources and Crop Evolution* **45**, 415-421. J
- Doucet, M.E., Ferraz, L.C.C.B., Magunacelaya, J.C. & Brown, D.J.F.** 1998. The occurrence and distribution of Longidoridae (Nematoda) in Latin America. *Russian Journal of Nematology* **6**, 111-128. J
- Doyle, J.J., Morgante, M., Tingey, S.V. & Powell, W.** 1998. Size homoplasy in chloroplast microsatellites of wild perennial relatives of soybean (*Glycine* subgenus *Glycine*). *Molecular Biology and Evolution* **15**, 215-218. J
- Duncan, J.M., Cooke, D.E.L., Lacourt, I., Bonants, P.J.M. & Murphy, J.A.** 1998. Detection of *Phytophthora* in plants by the polymerase chain reaction. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Ehwaeti, M.E., Phillips, M.S. & Trudgill, D.L.** 1998. Dynamics of damage to tomato by *Meloidogyne incognita*. *Fundamental and Applied Nematology* **21**, 627-635. J
- Ehwaeti, M.E.M., Fargette, M., Phillips, M.S. & Trudgill, D.L.** 1998. Wide host range and mechanisms of variation in host status of temperate and tropical plants for four populations of *Meloidogyne incognita*. *24th International Nematology Symposium*, Dundee, 1998, 29. O
- Ehwaeti, M.E.M., Phillips, M.S. & Trudgill, D.L.** 1998. Effects of inoculum density, duration of infection and host status on damage by *Meloidogyne incognita*. *24th International Nematology Symposium*, Dundee, 1998, 29. O
- Ekschmitt, K. & Griffiths, B.S.** 1998. Soil biodiversity and its implications for ecosystem functioning in a heterogeneous and variable environment. *Applied Soil Ecology* **10**, 201-215. J
- Ellis, R.P., Baird, E., Booth, A., Lawrence, P., Thomas, W.T.B. & Powell, W.** 1997. The use of AFLPs to examine genetic relatedness in barley. *Molecular Breeding* **3**, 359-369. J
- Ellis, R.P., Ferguson, E. & Swanston, J.S.** 1998. Increased precision in defining and selecting samples for malting quality. *Home-Grown Cereals Authority*, 34. O
- Ellis, R.P., Forster, B.P., Thomas, W.T.B., Robinson, D., Handley, L.L., Scrimgeour, C., Russell, J. & Powell, W.** 1998. Wild barley: a new source of genes for crop improvement in the 21st century? *Abstracts of Molecular Physiology II: Engineering Crops for Hostile Environments*, Rothamsted, UK. P
- Ellis, R.P., Powell, W., Thomas, W.T.B., Baird, E., Young, G., Lawrence, P., Tiller, S. & Swanston, J.S.**

Publications

1998. Genetic control of starch granule proteins and their relationship to quality in barley. *Production and Uses of Starch*, Edinburgh, April 1998. P
- Eujayl, I., Baum, M., Powell, W., Erskine, W. & Pehu, E.** 1998. A genetic linkage map of lentil (*Lens* sp.) based on RAPD and AFLP markers using recombinant inbred lines. *Theoretical and Applied Genetics* **97**, 83-89. J
- Fennell, S.R., Powell, W., Wright, F., Ramsay, G. & Waugh, R.** 1998. Phylogenetic relationships between *Vicia faba* (Fabaceae) and related species inferred from chloroplast trnL sequences. *Plant Systematics and Evolution* **212**, 247-259. J
- Fenton, B., Woodford, J.A.T. & Malloch, G.** 1998. Analysis of clonal diversity of the peach-potato aphid, *Myzus persicae* (Sulzer), in Scotland, UK and evidence for the existence of a predominant clone. *Molecular Ecology* **7**, 1475-1487. J
- Filipe, J.A.N. & Gibson, G.J.** 1998. Studying and approximating spatio-temporal models for epidemic spread and control. *Philosophical Transactions of the Royal Society of London Series B* **353**, 2153-2162. J
- Fitter, A.H., Graves, J.D., Watkins, N.K., Robinson, D. & Scrimgeour, C.M.** 1998. Carbon transfer between plants and its control in networks of arbuscular mycorrhizas. *Functional Ecology* **12**, 406-412. J
- Flavell, A.J., Knox, M., Pearce, S.R., Ellis, T.H.M.** 1998. Retrotransposon-based insertion polymorphisms (RBIP) for high throughput marker analysis. *The Plant Journal* **16**, 643-650. J
- Flipse, E., Dale, M.F.B. & Mackay, G.R.** 1998. Changes in some nutritional traits in genetically modified potatoes. *Aspects of Applied Biology* **52**, 263-268. P
- Forbes, P., Millam, S., Harrier, L.A., Gollotte, A. & Hooker, J.E.** 1998. Transformation of the arbuscular mycorrhizal fungus *Gigaspora rosea* by particle bombardment. *Second International Congress on Mycorrhiza*, Uppsala, Sweden, 5-12 July. P
- Forster, B.P.** 1998. Co-ordinator's Report: Chromosome 4H. *Barley Genetics Newsletter* **28**. O
- Forster, B.P.** 1998. Stable yields in Mediterranean barley: application of molecular technologies in improving drought tolerance and mildew resistance. *Scientific Cooperation of the European Union with Third Mediterranean Countries* Euro-Mediterranean S&T Cooperation, 1998 Edition. European Commission Publication. O
- Forster, B.P.** 1999. Studies on wild barley, *Hordeum spontaneum* C. Koch at the Scottish Crop Research Institute. In: Wasser, S.P. (ed.). *Evolutionary Theory and Processes: Modern Perspectives*. Kluwer Academic Publishers, Dordrecht, Boston, London, 325-344. R
- Forster, B.P., Ellis, R.P., Newton, A.C., Thomas, W.T.B., Tuberosa, R., This, D., El-Gamal, A.S., Bahri, M.H. & Ben Salem, M.** 1998. Molecular markers for abiotic stress tolerance in barley. *Abstracts of Molecular Physiology II: Engineering Crops for Hostile Environments*, Rothamsted, UK. P
- Forster, B.P., Ellis, R.P., Newton, A.C., Tuberosa, R., This, D., El-Gamal, A., Bahri, M.H. & Ben Salem, M.** 1998. Molecular breeding of barley for low input agricultural conditions. *Abstracts of 6th International Symposium on Genetics and Molecular Biology of Plant Nutrition*, Elsinore, Denmark. P
- Fraser, P.M. & Boag, B.** 1998. The distribution of lumbricid earthworm communities in relation to flatworms: a comparison between New Zealand and Europe. *Pedobiologia* **42**, 543-555. J
- Fréchon, D., Cazelles, O., Exbrayat, P., Hélias, V., Hyman, L.J., Jouan, B., Llop, P., Lopez, M., Payet, N., Pérombelon, M.C.M., Toth, I.K., van Beckhoven, J.R.C.M., van der Wolf, J.M. & Bertheau, Y.** 1998. Evaluation of a PCR kit for the detection of *Erwinia carotovora* subsp. *atroseptica* on potato tubers. *Potato Research* **41**, 163-173. J
- Geoghegan, I.E., Majerus, T.M.O. & Majerus, M.E.N.** 1998. A record of a rare male of the parthenogenetic parasitoid *Dinocampus coccinellae* (Shrank) (Hymenoptera: Braconidae). *Entomologist's Record and Journal of Variation* **110**, 171-172. J
- Geoghegan, I.E., Majerus, T.M.O. & Majerus, M.E.N.** 1998. Differential parasitisation of imaginal and pre-imaginal *Coccinella septempunctata*. *European Journal of Entomology* **95**, 571-579. J
- Ghislain, M., Herrera, M., Portal, L., Orillo, M., Meyer, R., Waugh, R. & Trognitz, B.** 1999. QTL analysis of quantitative resistance to late blight in a cross between *S. phureja* and a dihaploid *S. tuberosum*. *Plant and Animal Genome VII*, San Diego, January 1999. P
- Gillespie, T.L., Brennan, R., Glidewell, S.M. & Roberts, I.M.** 1998. Non-invasive and non-destructive imaging of flower initiation and development of dormancy in red raspberry by NMR microimaging and *en bloc* optical sectioning. *Abstracts of the 26th Scottish Microscopy Group Symposium*, Dundee. P
- Gleixner, G., Scrimgeour, C.M., Schmidt, H-L. & Viola, R.** 1998. Stable isotope distribution in the major metabolites of source and sink organs of *Solanum tuberosum* L.: a powerful tool in the study of metabolic partitioning in intact plants. *Planta* **207**, 241-245. J
- Glidewell, S.M. & Bryce, J.H.** 1998. NMR imaging of barley - a video presentation. *The Institute of Brewing, Profiting from Technology, 5th Aviemore Conference*, Aviemore, April 1998. P
- Glidewell, S.M., Williamson, B., Duncan, G.H., Chudek, J.A. & Hunter, G.** 1998. Blackcurrant fruit development in three dimensions by NMR microscopy and complementary techniques. *Abstracts of 26th Scottish Microscopy Group Symposium*, Dundee. P
- Glidewell, S.M., Williamson, B., Duncan, G.H., Chudek, J.A. & Hunter, G.** 1999. The development of blackcurrant fruit from flower to maturity: a comparative study by 3D nuclear magnetic resonance (NMR) micro-imaging and conventional histology. *New Phytologist* **141**, 85-98. J
- Golmirzaie, A., Cipriani, G., Millam, S. & Leslie, M.** 1998. Collaborative work on somatic embryogenesis in potato (*Solanum tuberosum*). In: Warham, E.J. (ed.). *Department for International Development Report: DFID and the Consultative Group on International Agricultural Research (CGIAR): The Competitive Research Facility 1990-1997*, 25-26. R
- Gowen, S.R.I., Madulu, J., Mwageni, W., Phillips, M.S., Trivino, C. & Trudgill, D.L.** 1998. Successful deployment of *Pasteuria penetrans* in field plots infested with root-knot nematode in Ecuador and Tanzania. *24th International Nematology Symposium*, Dundee, 1998, 42. O

- Grabarnik, P., Pages, L. & Bengough, A.G.** 1998. Geometric properties of simulated maize root systems: consequences for length density and intersection density. *Plant and Soil* **200**, 157-167. J
- Graham, J. & Gordon, S.C.** 1998. Field trialling of transgenic strawberries. *Report to the Department of the Environment*. R
- Graham, J. & Millan-Mendoza, B.** 1999. Organogenesis and micropagation in red raspberry using forchlorfenuron (CPPU). *Journal of Horticultural Science and Biotechnology* **74**(2), 219-223. J
- Graham, J., Gordon, S.C. & McNicol, R.J.** 1999. Genetically modified soft fruit for pest resistance. *Proceedings of Crop Protection in Northern Britain Conference 1999*, Dundee, 121-126. P
- Griep, R.A., van Twisk, C., Kerschbaumer, R.J., Harper, K., Torrance, L., Himmeler, G., van der Wolf, J. & Schots, A.** 1999. pSKAP/S: an expression vector for the production of single-chain Fv alkaline phosphatase fusion proteins. *Protein Expression and Purification* **16**, 63-69. J
- Griffiths, B.S.** 1998. What is microbial diversity? *National Environmental Research Institute Workshop on 'Effects of Microbial Biotechnology on Soil Ecosystems'*, Roskilde, Denmark. J
- Griffiths, B.S., Ritz, K., Ebblewhite, N. & Dobson, G.** 1999. Soil microbial community structure: effects of substrate loading rates. *Soil Biology and Biochemistry* **31**, 145-153. J
- Griffiths, B.S., Wheatley, R.E., Oleson, T., Henriksen, K., Ekelund, F. & Rønn, R.** 1998. Dynamics of nematodes and protozoa following the experimental addition of cattle or pig slurry to soil. *Soil Biology & Biochemistry* **30**, 1379-1387. J
- Griffiths, D.W., Bain, H. & Dale, M.F.B.** 1998. The effect of storage temperature on potato (*Solanum tuberosum L.*) tuber glycoalkaloid content and the subsequent accumulation of glycoalkaloids and chlorophyll in response to light exposure. *Journal of Agricultural and Food Chemistry* **46**, 5262-5268. J
- Griffiths, D.W., Birch, A.N.E. & Hillman, J.R.** 1998. Antinutritonal compounds in the *Brassicaceae*: analysis, biosynthesis, chemistry and dietary effects. *Journal of Horticultural Science and Biotechnology* **73**, 1-18. J
- Gunstone, F.D. (ed.)** 1999. *Lipid synthesis and manufacture*. Sheffield Academic Press, Sheffield, 472 pp. R
- Gunstone, F.D.** 1998. Movements toward tailor-made fats. *Progress in Lipid Research* **37**, 277-305. R
- Hackett, C.A., Bradshaw, J.E., Meyer, R.C., McNicol, J.W., Milbourne, D. & Waugh, R.** 1998. Linkage analysis in tetraploid potato: a simulation study. *Genetical Research* **71**, 143-154. J
- Halbrendt, J.M., Robbins, R.T., Vrain, T.C. & Brown, D.J.F.** 1998. Longidoridae with only three juvenile development stages. *Russian Journal of Nematology* **6**, 63-64. J
- Hallett, P.D. & Young, I.M.** 1998. Changes in wetting rates of soil aggregates caused by nutrient amendments. *Pacific Northwest Forest and Rangeland Soil Organism Symposium*, Corvallis, Oregon. P
- Hallett, P.D. & Young, I.M.** 1999. Changes to water repellence of soil aggregates caused by substrate-induced microbial activity. *European Journal of Soil Science* **50**, 1-6. J
- Hallett, P.D., Bird, N.R.A., Dexter, A.R. & Seville, J.P.K.** 1998. Application of fractals to the scaling of aggregate structure and strength. *European Journal of Soil Science* **49**, 203-211. J
- Hallett, P.D., Dexter, A.R., Baumgartl, T., Seville, J.P.K. & Horn, R.** 1998. Changes to pore water pressure caused by indirect and direct tensile loading of unsaturated soil aggregates. *16th World Congress on Soil Science*, Montpellier, France. P
- Handley, L.L., Robinson, D., Forster, B.P., Ellis, R.P., Scrimgeour, C.M., Gordon, D.C., Nevo, E. & Raven, J.A.** 1997. Shoot $\delta^{15}\text{N}$ correlates with genotype and salt stress in barley. *Planta* **102**, 100-102. J
- Handley, L.L., Scrimgeour, C.M. & Raven, J.A.** 1998. $\delta^{15}\text{N}$ natural abundance levels in terrestrial vascular plants: a précis. In: Griffiths, H. (ed.). *Stable Isotopes: Integration of Biological, Ecological and Geochemical Processes*. BIOS Scientific Publishers, Oxford, 89-98. J
- Harding, K. & Millam, S.** 1998. Analysis of PCN-resistant *Solanum* somatic hybrids. *Abstracts 24th International Nematology Symposium*, Dundee, August 1998, 47. P
- Harding, K. & Millam, S.** 1999. Analysis of ribosomal RNA genes in somatic hybrids between wild and cultivated *Solanum* species. *Molecular Breeding* **5**, 11-20. J
- Harper, K., Toth, R.L., Mayo, M. & Torrance, L.** 1999. Selection of anti-plant virus single chain variable fragments from phage display libraries. In: Harper, K. & Ziegler, A. (eds.). *Recombinant antibodies - applications in plant science and plant pathology*. Taylor and Francis, 37-55. R
- Harrier, L.A., Wright, F. & Hooker, J.E.** 1998. Isolation of the 3-phosphoglycerate kinase gene of the arbuscular mycorrhizal fungus *Glomus mossaeae* (Nicol. & Gerd.) Gerdemann & Trappe. *Current Genetics* **34**, 386-392. J
- Hay, R.K. & Ellis, R.P.** 1998. The control of flowering in wheat and barley: what recent advances in molecular genetics can reveal. *Annals of Botany* **82**, 541-554. J
- Hedley, P., Simpson, C.G., McQuade, C.M., Lyon, J.M., Machray, G.C. & Brown, J.W.S.** 1998. Alternative splicing of invertase pre-mRNAs. *Journal of Experimental Botany* **49**, 14. J
- Herron, P., Toth, I.K., Vionis, A., Karagouni, A. & Wellington, E.M.H.** 1997. The selective effect of neomycin on streptomycete populations in soil. *Journal of Soil Biology Biochemical* **30**, 673-677. J
- Hillman, J.R.** 1998. International patterns and projections in agbiotech markets -Europe. *Agricultural Biotechnology International Conference*, Saskatoon, Saskatchewan, Canada, June 1998, 17. P
- Hillman, J.R.** 1998. Plant genetics. *Sustainable Use of Land and Water: Eighteenth Biennial Conference of the Royal Agricultural Society of the Commonwealth*, Darwin, Australia, April 1998, 1-3. P
- Hillman, J.R.** 1998. Semiochemicals: foresight and hindsight. *Pesticide Science* **54**, 296-299. J
- Hodge, A., Fitter, A.H., Robinson, D., Stewart, J. & Griffiths, B.S.** 1998. Differential root growth and nitrogen capture by five grasses in organic patches. *Society for Experimental Biology Annual Conference*, York. P
- Hodge, A., Stewart, J., Griffiths, B.S., Robinson, D. & Fitter, A.** 1998. Root proliferation, soil fauna and plant

Publications

- nitrogen capture from nutrient-rich patches in soil. *New Phytologist* **139**, 479-494. J
- Hopkins, R.J., Griffiths, D.W., Birch, A.N.E. & McKinlay, R.G.** 1998. The influence of increasing herbivore pressure on the modification of the glucosinolate content of swedes (*Brassica napus* ssp. *rapifera*). *Journal of Chemical Ecology* **24**, 2003-2019. J
- Horgan, G.W.** 1998. Mathematical morphology for soil image analysis. *European Journal of Soil Science* **49**, 161-174. J
- Hummer, K.E., Carter, J., Postman, J.D. & Gordon, S.C.** 1999. Survey of gooseberry mite infestation in *Ribes* L. *HortScience* **34**, 678-680. J
- Humphris, S., Wheatley, R.E. & Bruce, A.** 1998. Biological control of basidiomycetes by volatile organic compounds produced by *Trichoderma* spp. *Proceedings of SIAM Meeting: Detection, Isolation and Manipulation of Soil Rhizosphere Microorganisms*, Warwick. P
- Hyman, L.J., Birch, P.R.J. & Toth, I.K.** 1998. Improved PCR detection of *Erwinia carotovora* subsp. *atroseptica* for commercial use. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Iannetta, P.P.M. & Fry, S.C.** 1999. Visualisation of xyloglucan endotransglycosylase (XET) isoenzymes after gel electrophoresis. *Phytochemical Analysis* **10**, 238-240. J
- Iannetta, P.P.M., Fry, S.C., Stewart, D., McDougall, G. & Davies, H.V.** 1998. Raspberry (*Rubus idaeus* L.) fruit-cell composition: xyloglucan endotransglycosylase activity and xyloglucan content. *8th International Cell-Wall Meeting*, John Innes Centre, Norwich, September 1998. P
- Iannetta, P.P.M., James, E., Thow, G., Minchin, F., Simpson, C., Sprent, J. & Williamson, B.** 1998. Immunolocalisation of polygalacturonase-inhibiting protein (PGIP) in white lupin. *Proceedings of 8th Scottish Cell Wall Group Meeting*, Dundee, 8-9 April 1998, p.6 (abstract). P.
- Iannetta, P.P.M., Stewart, D., Jones, C., Deighton, N., Wheatley, R., Taylor, M., McNicol, R.J. & Davies, H.V.** 1998. Enhancing raspberry fruit quality. *Proceedings of the Madrid-COST 915 Conference*, Madrid, Spain, October 1998. P
- Iannetta, P.P.M., Stewart, D., Jones, C.J., Woodhead, M., Deighton, N., Wheatley, R.E., Taylor, M.A., McNicol, R.J. & Davies, H.V.** 1998. Enhancing raspberry fruit quality. *Physiological and Technological Aspects of Gaseous and Thermal Treatments of Fresh Fruit and Vegetables*, Madrid, October 1998. P
- Iannetta, P.P.M., van den Berg, J., Wheatley, R., McMillan, G., McNicol, R. & Davies, H.V.** 1998. A causal role for ethylene in raspberry fruit ripening. *Proceedings of the 7th International Rubus-Ribes Symposium*, Australia and New Zealand, January 1998. P
- Iannetta, P.P.M., van den Berg, J., Wheatley, R., McMillan, G.P., McNicol, R.J. & Davies, H.V.** 1998. Ethene and cell-wall modifying enzyme activities in raspberry fruit ripening. *Abstracts of the 2nd International Conference on Agri-Food Quality II: Quality Management of Fruits and Vegetables from Field to Table*, Turku, Finland, April 1998. P
- Iannetta, P.P.M., van den Berg, J., Wheatley, R.E., McNicol, R.J. & Davies, H.V.** 1999. The role of ethylene and cell wall modifying enzymes in raspberry (*Rubus idaeus*) fruit ripening. *Physiologia Plantarum* **105**, 338-347. J
- Ibrahim, A.F.M., Clark, G.P., Watters, J.A. & Brown, J.W.S.** 1998. Differential expression of individual members of the multigene families encoding the spliceosomal proteins, U1A and U2B". *5th International Symposium on the Molecular Biology of the Potato*, August, Berlin. P
- Jefferies, R.A., Boag, B., Neilson, R., Crabb, D., Wheatley, R.E., Ritz, K. & Duncan, H.** 1998. Impact of diesel pollution on soil microbial activity and nematode communities. *Proceedings of 6th International FZK/TNO Conference on Contaminated Soil*, Edinburgh. P
- Johns, P.M., Boag, B. & Yeates, G.W.** 1998. Observations on the geographical distribution of flatworms (Tubellaria, Rhytidemidae, Bipaliidae, Geoplanidae) in New Zealand. *Pedobiologia* **42**, 469-476. J
- Jones, A.T. & Mayo, M.A.** 1998. Raspberry bushy dwarf idaeovirus. *Association of Applied Biologists Description of Plant Viruses No. 360*. R
- Jones, A.T. & McGavin, W.J.** 1998. Infectibility and sensitivity of UK raspberry, blackberry and hybrid berry cultivars to *Rubus* viruses. *Annals of Applied Biology* **132**, 239-251. J
- Jones, A.T. & Roberts, I.M.** 1998. Some newly described viruses occurring in *Ribes* species. *Acta Horticulturae* **471**, 79-85. J
- Jones, A.T.** 1998. Control of virus infection in crops through breeding plants for vector resistance. In: Hadidi, A., Khetarpal, R.K. & Koganezawa, H. (eds.). *Plant Virus Disease Control*. APS Press, 41-55. R
- Jones, A.T., Angel-Diaz, J.E., Mayo, M.A., Brennan, R.M., Ziegler, A., McGavin, W.J., de Nova, C., Graham, J. & Lemmetty, A.** 1998. Recent progress towards control of two important viruses and their variants in small fruit crops in Europe. *Acta Horticulturae* **471**, 87-92. J
- Jones, A.T., Brennan, R.M., McGavin, W.J. & Lemmetty, A.** 1998. Galling and reversion disease incidence in a range of blackcurrant genotypes, differing in resistance to the blackcurrant gall mite (*Cecidophyopsis ribis*) and blackcurrant reversion disease. *Annals of Applied Biology* **133**, 375-384. J
- Jones, A.T., McGavin, W.J., Mayo, M.A. & Graham, J.** 1998. Natural infection with raspberry bushy dwarf virus (RBDV) of the putatively RBDV-resistant red raspberry cultivar Glen Moy, and the demonstration that it does not contain the RBDV resistance gene, *Bu*. *Annals of Applied Biology* **133**, 403-414. J
- Jones, C.D., Davies, H.V., McNicol, R.J. & Taylor, M.A.** 1998. Cloning of three genes up-regulated in ripening raspberry fruit (*Rubus idaeus* cv. Glen Clova). *Journal of Plant Physiology* **153**, 643-648. J
- Jones, E.R.L. & Newton, A.C.** 1998. *Rhynchosporium* of barley. *United Kingdom Cereal Pathogen Virulence Survey Annual Report for 1997*, 70-77. T
- Jones, J., Blair, L., Sobczak, M., Clot, N. & Perry, R.** 1998. Up-regulation of host and parasite genes during the life-cycle of cyst nematodes. *Abstracts of the AAB Offered Papers in Nematology Meeting*, Linnean Society, London, 1998. P
- Jung, T., Cooke, D.E.L., Blaschke, H., Duncan, J.M. & Obwald, W.** 1999. *Phytophthora quercina* sp. nov, causing root rot of European oaks. *Mycological Research* **103**, 785-798. J

- Kaplan, I.B. & Palukaitis, P.** 1998. Characterization of cucumber mosaic virus. VI. Generation of deletions in defective RNA 3s during passage in transgenic plants expressing the 3a gene. *Virology* **251**, 279-287. J
- Karanastasi, I., Roberts, I.M., MacFarlane, S.A. & Brown, D.J.F.** 1998. Staining trichodoridae nematodes with safranin for electron microscopy study. *Proceedings of the 30th Annual Meeting of the Organization of Tropical American Nematologists*, Mendoza, Argentina, 1998, 82. P
- Karanastasi, I., Roberts, I.M., MacFarlane, S.A. & Brown, D.J.F.** 1998. Staining with safranin: a new approach to handling nematodes. *Proceedings of the 21st Congresso Brasileiro de Nematologia*, Maringa, Brasil, 1998, 55-56. P
- Kempton, R.A.** 1998. How safe is safe? Communicating risk to decision-makers. *Science & the Scottish Parliament. Proceedings of Symposium of the Edinburgh International Science Festival*, Edinburgh, 19-29. P
- Kempton, R.A.** 1998. Models and designs for experiments with carryover of treatment effects. *Czech Journal of Genetics and Plant Breeding* **34**, 139-143. J
- Kumar, A., Sobczak, M., Blok, V.C., Phillips, M.W., Ernst, K. & Ganal, M.** 1998. Characterisation of a wide spectrum nematode resistance gene (*Hero*) of tomato. *24th International Nematology Symposium*, Dundee, 1998, 61. O
- Lazanova, S., Peneva, V. & Neilson, R.** 1998. Nematodes of the genus *Tripyla* Bastian, 1865 (Nematoda: Enoploida) from woodlands in Bulgaria. *Russian Journal of Nematology* **6**, 174. J
- Leader, D.J., Clark, G.P. & Brown, J.W.S.** 1998. U14snRNAs of the fern, *Asplenium nidus*, contain large sequence insertions compared with those of higher plants. *Biochimica Biophysica Acta* **1397**, 325-330. J
- Leader, D.J., Clark, G.P., Boag, J., Watters, J.A., Simpson, C.G., Watkins, N.J., Maxwell, E.S. & Brown, J.W.S.** 1998. Processing of vertebrate box C/D small nucleolar RNAs in plants. *European Journal of Biochemistry* **253**, 154-160. J
- Lees, A.K., Bradshaw, J.E. & Stewart, H.E.** 1998. Inheritance of resistance to *Fusarium* spp. and to *Phytophthora infestans* in crosses between Neotuberosum and Tuberosum potatoes estimated by seedling tests. *Potato Research* **41**, 267-275. J
- Lees, A.K., Bradshaw, J.E., DeMaine, M. & Stewart, H.E.** 1998. Novel sources of resistance to *Erwinia* and *Fusarium* in potato. *Abstracts of the 7th International Congress of Plant Pathology*, Edinburgh 1998, 3.4.54. P
- Lees, A.K., Bradshaw, J.E., Nicolson, M., McDonald, S. & Cullen, D.W.** 1998. Resistance to skin blemish diseases and variation in pathogen populations. *Proceedings of the EAPR Pathology Section Meeting*, Umea, Sweden, 1998. P
- Liskova, M. & Brown, D.J.F.** 1998. Ecology of Longidoridae (Dorylaimida) in the Slovak Republic. *Nematologica* **44**, 527. J
- Liskova, M. & Brown, D.J.F.** 1998. Longidoridae (Nematoda) associated with walnut trees (*Juglans regia* L.) in Slovak Republic. *Helminthologia* **35**, 93-99. J
- Liu, J.** 1998. A conjecture on the effects of enzyme saturation on pattern formation of biochemical systems. *Abstracts of the Mathematical Biology of Pattern and Process Meeting*, Bath. P
- Liu, J.** 1998. Dependence of flux distribution on dynamical states and environmental fluctuations for biochemical systems with multiple coexisting states. *Abstracts of Power-Law Modelling of Biological Systems Meeting*, Oeiras, Portugal. P
- Liu, J.** 1998. Effects of noise on coordination of nonlinear biochemical systems: a theoretical analysis. *Journal of Biological Systems* **6**, 377-392. J
- Liu, J.** 1999. Coordination restriction of enzyme-catalysed reaction systems as nonlinear dynamical systems. *Proceedings of the Royal Society of London A* **455**, 285-298. J
- Liu, J. & Crawford, J.W.** 1998. Stability of an autocatalytic biochemical system in the presence of noise perturbations. *IMA Journal of Mathematics in Applied Medicine and Biology* **15**, 339-350. J
- Liu, J., Crawford, J.W. & Viola, R.** 1997. A theoretical analysis of the role of pyrophosphate, fructose 6-P, 1-phosphotransferase in the energy dissipation of plant metabolism. *Journal of Biological Systems* **5**, 389-401. J
- Liu, J., Crawford, J.W. & Viola, R.** 1997. Prospects for advancing the understanding of complex biochemical systems. *Plant Molecular Biology* **33**, 573-581. J
- Lohrke, S.M., Day, B., Kooli, V.S.K., Hancock, R., Yuen, J.P.Y., de Souza, M.L., Stacey, G., Carlson, R., Tong, Z., Hur, H.G., Orf, J.H. & Sadowsky, M.J.** 1998. The *Bradyrhizobium japonicum noeD* gene: a negatively acting, genotype-specific nodulation gene for soybean. *Molecular Plant-Microbe Interactions* **11**, 476-488. J
- Lollier, V., Phillips, M.S., Blok, V.C., Frutos, R. & Fargetto, M.** 1998. Genetic diversity in *Meloidogyne* as revealed by AFLPs. *24th International Nematology Symposium*, Dundee, 1998, 65. O
- Lowe, A.J., Russell, J.R., Powell, W. & Dawson, I.K.** 1998. Identification and characterization of nuclear, cleaved amplified polymorphic sequence (CAPS) loci in *Irvingia gabonensis* and *I. wombolu*, indigenous fruit trees of west and central Africa. *Molecular Ecology* **7**, 1786-1788. J
- Lynn, A., Cochrane, M.P., Cooper, A.M., Dale, M.F.B., Duffus, C.M., Ellis, R.P., Mackay, G.R., Morrison, I.M., Paterson, L.J., Prentice, R.D.M., Sinclair, K., Smith, R.M., Swanston, J.S. & Tiller, S.A.** 1998. Starch structure and behaviour. *Abstracts of AAB Conference on Production and Uses of Starch*, Edinburgh. P
- Lyon, G.D.** 1998. Metabolic pathways of the diseased potato. *Proceedings 7th International Congress of Plant Pathology*, Edinburgh, Scotland 9-16 August. P
- Lyon, G.D., Birch, P.R.J., Avrova, A.O., Dellagi, A. & Toth, I.K.** 1998. Signalling events in plant cells in response to infection. *Proceedings of the 24th International Nematology Symposium*, Dundee. P
- Macaulay, M., Stephenson, P., Gale, M. & Waugh, R.** 1998. Development and assessment of SSR-based markers for application in genetical studies in barley and wheat. *BBSRC PAGA/GAIT Workshop*, Edinburgh, April 1998. P
- MacFarlane, S.A.** 1998. Molecular studies of the transmission of plant viruses by nematodes. *Abstracts of the 7th International Congress of Plant Pathology*, Edinburgh, 1998, 1.13.65. P
- MacFarlane, S.A.** 1998. Molecular studies of viruses transmitted by plant parasitic nematodes. *24th International Nematology Symposium*, Dundee, 1998, 67. P

Publications

- MacFarlane, S.A., Vassilakos, N. & Brown, D.J.F.** 1999. Similarities in the genome organization of tobacco rattle virus and pea early-browning virus isolates that are transmitted by the same nematode vector. *Journal of General Virology* **80**, 273-276. J
- Machray, G.C., Hedley, P.E. & Davidson, D.** 1998. Polynucleotides (3) (Invertase Promoters - Machray). *British Patent Application No. 9823481.8*. T
- Machray, G.C., Hedley, P.E., Maddison, A. & Meyer, R.C.** 1998. Polynucleotide (Invertase Promoter - Machray). *International Patent Application No. PCT/GB98/00833*. T
- Mackay, G.R.** 1998. Potato seed production in UK. *Presentation to Working Group I (abstract) of COST 822: Conference, Potato Seed Production by Tissue Culture*, Brussels, 25-28 February 1998. P
- Mackay, G.R.** 1998. Starch production. *Abstracts of International Conference on Production and Uses of Starch*, Edinburgh, 6-8 April 1998. P
- Mackie, A. & Wheatley, R.E.** 1998. Effects and incidence of volatile organic compound interactions between soil bacterial and fungal isolates. *Soil Biology and Biochemistry* **31**, 375-385. J
- MacLeod, M.R., Davies, H.V., Jarvis, S.B. & Taylor, M.A.** 1999. Characterisation of genes isolated from a potato swelling-stolon cDNA library. *Potato Research* **42**, 31-42. J
- Marheineke, S., Grünwald, S., Christie, W.W. & Reiländer, H.** 1998. Lipid composition of *Spodoptera frugiperda* (Sf9) and *Trichoplusia ni* (Tn) insect cells used for baculovirus infection. *FEBS Letters* **441**, 49-52. J
- Marriott, C.A., Hudson, G., Hamilton, D., Neilson, R., Boag, B., Handley, L.L., Wishart, J., Scrimgeour, C.M. & Robinson, D.** 1998. Spatial variability of soil total C and N and their stable isotope signatures in an upland grassland system. *Plant and Soil* **196**, 151-162. J
- Marshall, B., Boag, B., McNicol, J.W. & Neilson, R.** 1998. A comparison of the spatial distributions of three plant-parasitic nematode species at three different sites. *Nematologica* **44**, 303-320. J
- Martin, J.C., Dobarganes, M.C., Nour, N., Marquez-Ruiz, G., Christie, W.W., Lavillonière, F. & Sébédio, J.L.** 1998. Effect of fatty acid positional distribution and triacylglycerol composition on lipid by-products during heat treatment. 1. Polymer formation. *Journal of the American Oil Chemists' Society* **75**, 1065-1071. J
- Martinez-Carrasco, R., Perez, P., Handley, L.L., Scrimgeour, C.M., Igual, M., del-Molino, I.M., Sanchez, L. & Dela-Puente, S.** 1998. Regulation of growth, water use efficiency and $\delta^{13}\text{C}$ by the nitrogen source in *Casuarina equisetifolia* Forst and Forst. *Plant Cell and Environment* **21**, 531-534. J
- Mayo, M.A. & D'Arcy, C.J.** 1999. Family *Luteoviridae*: A proposed re-classification of luteoviruses. In: Smith, H.G. & Barker, H. (eds.). *The Luteoviridae*. CABI, 15-22. R
- Mayo, M.A. & Horzinek, M.** 1998. A revised version of the International Code of Virus Classification and Nomenclature. *Archives of Virology* **143**, 1645-1654. J
- Mayo, M.A. & Jones, A.T.** 1999. Idaeovirus. In: Webster, R.G. & Granoff, A. (eds.). *Encyclopaedia of Virology, 2nd Edition*. Academic Press, London, 809-811. R
- Mayo, M.A. & Jones, A.T.** 1999. Nepovirus (*Comoviridae*). In: Webster, R.G. & Granoff, A. (eds.). *Encyclopaedia of Virology, 2nd Edition*. Academic Press, London, 1007-1013. R
- Mayo, M.A. & Miller, W.A.** 1999. The structure and expression of luteovirus genomes. In: Smith, H.G. & Barker, H. (eds.). *The Luteoviridae*. CABI, 23-42. J
- Mayo, M.A. & Murant, A.F.** 1999. Sequiviruses (*Sequiviridae*). In: Webster, R. & Granoff, A. (eds.). *Encyclopedia of Virology, 2nd Edition*. Academic Press, London, 1622-1625. R
- Mayo, M.A., Reavy, B., Duncan, G.H., Gildow, F.E., Woodford, J.A.T. & Lamb, J.W.** 1998. Insect cells infected with recombinant baculoviruses produce particles that resemble virions of potato leafroll virus. *Abstracts of the International Congress of Plant Pathology*, Edinburgh, 1998, No 1.13.10. P
- Mayo, M.A., Taliinsky, M.E. & Fritsch, C.** 1999. Large satellite RNA: molecular parasitism or molecular symbiosis. In: Vogt, P.K. & Jackson, A.O. (eds.). *Satellites and Defective Viral RNAs*. Springer, Berlin, 65-79. R
- McDougall, G.J.** 1998. Purification of coniferyl alcohol oxidase from lignifying xylem of Sitka spruce using immobilised metal affinity chromatography. *Journal of Plant Physiology* **153**, 539-544. J
- McGuire, G. & Wright, F.** 1998. TOPAL: recombination detection in DNA and protein sequences. *Bioinformatics* **14**, 219-220. J
- McNicol, R.J. & Graham, J.** 1998. Genetic transformation in *Rubus* and *Ribes*. *Acta Horticulturae* **471**, 271-275. J
- Meyer, R.C., Milbourne, D., Hackett, C.A., Bradshaw, J.E., McNicol, J.W. & Waugh, R.** 1998. Linkage analysis in tetraploid potato and association of markers with quantitative resistance to late blight (*Phytophthora infestans*). *Molecular and General Genetics* **259**, 150-160. J
- Milbourne, D., Meyer, R.C., Collins, A.J., Ramsay, L.D., Gebhardt, C. & Waugh, R.** 1998. Isolation, characterisation and mapping of simple sequence repeat loci in potato. *Molecular and General Genetics* **259**, 233-245. J
- Miller, J.S., Walls, F.M. & Ramsay, G.** 1998. Pathogen resistant grain legumes by gene transfer techniques. *Abstracts of the 7th International Congress of Plant Pathology*, Edinburgh, 9-16 August 1998, 5.3.30. P
- Mitchell, S., Dobson, P., Davies, H.V. & Viola, R.** 1998. Potential for artefacts in the measurement of fructose and sucrose in extracts of potato tubers using the microplate reader assay. *Potato Research* **41**, 383-386. J
- Molina-Cano J.-L., Prada, D., Sopena, A., Moralejo, M.A., Swanston, J.S., Camplans, A., Casas, A.M. & Romagosa, I.** 1998. Mutants induced in malting barley with altered dormancy and ABA response. *Proceedings of the International Symposium on Pre-Harvest Sprouting in Cereals*, Detmold, Germany, 23-30. P
- Morrison, I.M. & Stewart, D.** 1998. Plant cell wall fragments released on solubilisation in trifluoroacetic acid. *Phytochemistry* **49**, 1555-1563. J
- Morrison, I.M., Cochrane, M.P., Cooper, A.M., Dale, M.F.B., Duffus, C.M., Ellis, R.P., Lynn, A., Mackay, G.R., Paterson, L.J., Prentice, R.D.M., Swanston, J.S. & Tiller, S.A.** 1998. Variation in composition and properties of potato starches. *Abstracts of AAB Conference on Production and Uses of Starch*, Edinburgh. P

- Muluvi, G.M., Sprent, J.I., Soranzo, N., Provan, J., Odee, D., Folkard, G., McNicol, J.W. & Powell, W.** 1999. Amplified fragment length polymorphism (AFLP) analysis of genetic variation in *Moringa oleifera* Lam. *Molecular Ecology* **8**, 463-470. J
- Munir, A., Phillips, M.S. & Trudgill, D.L.** 1998. Hatching activity of Solanaceous plants in relation to their potential as trap crops for *Globodera pallida* and *G. rostochiensis*. *24th International Nematology Symposium*, Dundee, 1998, 77. O
- Murant, A.F., Robinson, D.J. & Taliinsky, M.E.** 1998. Groundnut rosette virus. *AAB Descriptions of Plant Viruses No 355*. J
- Naidu, R.A., Bottenberg, H., Subrahmanyam, P., Kimmins, F.M., Robinson, D.J. & Thresh, J.M.** 1999. Epidemiology of groundnut rosette virus disease: current status and future research needs. *Annals of Applied Biology* **132**, 525-548. J
- Naidu, R.A., Robinson, D.J. & Kimmins, F.M.** 1998. Detection of the causal agents of groundnut rosette disease complex in plants and aphid vectors by RT-PCR. *7th International Congress of Plant Pathology*, Edinburgh, 1998, No.1.13.9. J
- Nakajima, M., Subramanian, R., Reddy, K.K., Snape, J.B. & Nabatani, H.** 1998. Use of polymer membranes for high quality edible oils. *4th International Food Convention*, Mysore, India, 23-27 November 1998. P
- Neilson, R. & Brown, D.J.F.** 1998. The application of stable isotope analyses in nematode-plant host interactions. *Nematologica* **44**, 547-548. J
- Neilson, R. & Brown, D.J.F.** 1999. Feeding on different host plants alters the natural abundances of d¹³C and d¹⁵N in Longidoridae (Nemata). *Journal of Nematology* **31**, 20-26. J
- Neilson, R., Boag, B. & Brown, D.J.F.** 1998. Nematodes from permanent pasture and scrubland in the UK. In: De Goede, R. & Bongers, T. (eds.). *Nematode Communities of Northern Temperate Grassland Ecosystems*. FOCUS, 338. R
- Neilson, R., Hamilton, D., Wishart, J., Marriott, C.A., Boag, B., Handley, L.L., Scrimgeour, C.M., McNicol, J.W. & Robinson, D.** 1998. Stable isotope natural abundances of soil, plants and soil invertebrates in an upland pasture. *Soil Biology and Biochemistry* **30**, 1773-1782. J
- Neilson, R., Robinson, D., Handley, L.L. & Brown, D.J.F.** 1998. Nematode feeding and infection cause potential biotic stress in plants as indicated by natural abundance values of ¹³C and ¹⁵N. *Russian Journal of Nematology* **6**, 69-70. J
- Newcombe, B.A., Ritz, K. & Gadd, G.M.** 1998. Nutritional influence on fungal solubilisation of insoluble metal compounds. *British Mycological Society Postgraduate Symposium*, Liverpool. P
- Newton, A.C. & Gaunt, R.E.** 1998. Information technology in epidemiology. In: Jones, D.G. (ed.). *The Epidemiology of Plant Diseases*. Kluwer Academic Publishers, Dordrecht, 278-292. R
- Newton, A.C. & Guy, D.C.** 1998. Exploration and exploitation strategies of powdery mildew on barley cultivars with different levels of nutrients. *European Journal of Plant Pathology* **104**, 829-833. J
- Newton, A.C., Guy, D.C., Ellis, R.P. & Swanston, J.S.** 1999. The effect of cultivar disease resistance and malting quality characteristics on their performance in mixtures. *Proceedings Crop Protection in Northern Britain* 1999, 91-96. P
- Newton, A.C., Hackett, C.A. & Guy, D.C.** 1998. Diversity and complexity of *Erysiphe graminis* f.sp. *hordei* collected from barley cultivar mixtures or barley plots treated with a resistance elicitor. *European Journal of Plant Pathology* **104**, 925-931. J
- Newton, A.C., Thomas, W.T.B., Guy, D.C. & Gaunt, R.E.** 1998. The interaction of fertiliser treatment with tolerance to powdery mildew in spring barley. *Fields Crops Research* **55**, 45-56. J
- Newton, A.C., Thomas, W.T.B., Swanston, J.S., Ellis, R.P., Guy, D.C. & Gacek, E.** 1998. The effect of inoculum pressure, fertiliser and component number on severity of mildew and scald, yield and malting quality in mixtures of barley cultivars. *International Congress for Plant Pathology*, Edinburgh, 9-16 August 1999. www.bspp.org.uk/icpp98/abstracts/1.3/33.html. P
- Nyvall, P., Pedersen, M., Sommerville, L. & Viola, R.** 1997. A novel starch synthase selective for UDP-glucose partially isolated from the red alga *Gracilaria tenuistipitata*. *Annual Meeting of the American Society of Plant Physiologists*, Indianapolis, USA. P
- Pachepsky, Y.A., Crawford, J.W. & Rawls, W.J. (eds.)** 1999. *Fractal models in soil science*. Elsevier, Amsterdam. R
- Palivan, C.G., Palivan, H.M.N., Goodman, B.A. & Cristescu, C.** 1998. ESR study of some asymmetric trizine copper(II) complexes having high antiviral activity. *Applied Magnetic Resonance* **15**, 477-488. J
- Patron, N.J., Mayo, M.A., Barker, H., Liney, M.S. & Smith, H.G.** 1998. Assessment of risks associated with growing virus resistant transgenic sugar beet. *Aspects of Applied Biology* **52**, 287-293. P
- Peneva, A.K., Loof, P.A.A. & Brown, D.J.F.** 1998. *Longidorus seinhorsti* sp.n. (Nematoda: Dorylaimoidea) from the Netherlands. *Fundamental & Applied Nematology* **21**, 605-609. J
- Peneva, V., Neilson, R., Boag, B. & Brown, D.J.F.** 1998. Criconematidae (Nemata) from two nature reserves in Russia. *Russian Journal of Nematology* **6**, 71. J
- Peneva, V., Neilson, R., Boag, B. & Brown, D.J.F.** 1998. The morphology of *Jensenonchus sphargri* (Brzeski, 1960) n. comb. from Scotland and comments on the taxonomic status and distribution of the species. *Nematologica* **44**, 255-268. J
- Peneva, V., Orion, D., Shelvin, E., Bar-Eyal, M. & Brown, D.J.F.** 1998. *Longidorus israelensis* n.sp. (Dorylaimida, Nemata), a parasite of carrot in Israel. *Fundamental & Applied Nematology* **21**, 715-721. J
- Peneva, V., Orion, D., Shelvin, E., Bar-Eyal, M. & Brown, D.J.F.** 1998. Morphology and biology of a *Longidorus* sp. (Nematoda: Longidoridae) damaging carrot in Israel. *Russian Journal of Nematology* **6**, 71. J
- Peneva, V., Penev, L.D. & Brown, D.J.F.** 1998. Association of *Longidorus intermedius* with *Quercus* spp. in Bulgaria. *Proceedings of the 21st Congresso Brasileiro de Nematologia*, Maringa, Brasil, 1998, 29. P
- Peneva, V., Penev, L.D. & Brown, D.J.F.** 1998. Morphology and distribution of *Longidorus intermedius* Kozlowska & Seinhorst, 1979. *Nematologica* **44**, 555. J

Publications

- Peneva, V., Penev, L.D. & Brown, D.J.F.** 1998. The occurrence of *Longidorus intermedius* in oak forests in Bulgaria. *Proceedings of the 30th Annual Meeting of the Organization of Tropical American Nematologists*, Mendoza, Argentina, 1998, 20. P
- Peneva, V., Penev, L.D., Boag, B. & Brown, D.J.F.** 1998. Nematode communities associated with different microhabitats in a Caledonian pine forest biotope. *Nematologica* **44**, 556. J
- Pérombelon, M.C.M., Bertheau, Y., Cambra, M., Fréchon, D., Lopez, M.M., Niepold, F., Persson, P., Sletten, A., Toth, I.K., van Vuurde J.W.L. & van der Wolf, J.M.** 1997. Microbiological, immunological and molecular methods suitable for commercial detection and quantification of the blackleg pathogen, *Erwinia carotovora* subsp. *atroseptica*, on potato seed tubers: a review. *EPPO bulletin* **28**, 141-156. P
- Perry, R.N. & Jones, J.T.** 1998. The use of molecular biology techniques in plant nematology: past, present and future. *Russian Journal of Nematology* **6**, 47-56. J
- Petz, C., Zunke, U., Heinicke, D. & Brown, D.J.F.** 1998. The use of antagonistic plants to suppress 'spraing' disease in potato caused by tobacco rattle tobaviruses transmitted by trichodoridae nematodes. *Nematologica* **44**, 557. J
- Petz, C., Zunke, U., Heinicke, D. & Brown, D.J.F.** 1998. Trichodoridae vectors of serologically distinguishable strains of tobacco rattle tobaviruses occurring in Germany. *Russian Journal of Nematology* **6**, 72. J
- Phillips, M.S. & Cook, R.** 1998. Proceedings of the 24th International Nematology Symposium, European Society of Nematologists, Dundee, Scotland, 1998. *Nematologica* **44**, 451-614. J
- Phillips, M.S. & Trudgill, D.L.** 1998. Variation in virulence of *Globodera pallida* populations in relation to quantitative resistance from *Solanum vernei* and *S. tuberosum* ssp. *andigena* CPC 2802. *Nematologica* **44**, 409-423. J
- Phillips, M.S., Blok, V.C., Armstrong, M.R., Harrower, B.E., Trudgill, D.L. & Bendezu, I.** 1998. Genetic variation in European and South American populations of *Globodera* spp. *24th International Nematology Symposium*, Dundee, 1998, 90. O
- Phillips, M.S., Blok, V.C., Ploeg, A. & Harrower, B.E.** 1998. Studies on an artificially fragmented population of potato cyst nematode *Globodera pallida*. *Nematologica* **44**, 655-666. J
- Phillips, M.S., Trudgill, D.L., Hackett, C.A., Hancock, M., Holliday, J.M. & Spauld, A.M.** 1998. A basis for prediction modelling of the relationship of potato yields to population density of the potato cyst nematode *Globodera pallida*. *Journal of Agricultural Science* **130**, 45-51. J
- Powell, W., Baird, E., Booth, A., Lawrence, P., Macaulay, M., Bonar, N., Young, G., Thomas, W.T.B., McNicol, J.W. & Waugh, R.** 1996. Single locus and multi-locus molecular assays for barley breeding and research. *VII International Barley Genetics Symposium*, Saskatoon, 174-181. P
- Prentice, R.D.M., Cochrane, M.P., Cooper, A.M., Dale, M.F.B., Duffus, C.M., Ellis, R.P., Lynn, A., Mackay, G.R., Morrison, I.M., Paterson, L.J., Swanston, J.S. & Tiller, S.A.** 1998. Starch processing potential. *Abstracts of AAB Conference on Production and Uses of Starch*, Edinburgh, P
- Prior, A.E., Kennedy, M.W., Blok, V.C., Robertson, W.M. & Jones, J.T.** 1998. Functional characterisation of a secreted protein from the potato cyst nematode *Globodera pallida*. *Abstracts of the BSP Spring Meeting*, Exeter, 1998, 9. P
- Prior, A.E., Kennedy, M.W., Blok, V.C., Robertson, W.M. & Jones, J.T.** 1998. Functional characterisation of a secreted protein from the potato cyst nematode *Globodera pallida*. *Abstracts of the 24th International Nematology Symposium*, Dundee, 1998, 94. O
- Prior, D.A.M., MacFarlane, S.A., Oparka, K.J. & Brown, D.J.F.** 1998. Study of viral infection, and symplastic and systemic invasion of plants using green fluorescent protein tagged tobacco rattle tobaviruses transmitted by *Paratrichodorus pachydermus* nematodes. *Russian Journal of Nematology* **6**, 73. J
- Prior, D.A.M., Oparka, K.J. & Roberts, I.M.** 1999. *En bloc* optical sectioning of resin-embedded specimens using a confocal laser scanning microscope. *Journal of Microscopy* **93**, 20-27. J
- Provan, J., Powell, W., Dewar, H., Bryan, G., Machray, G. & Waugh, R.** 1998. An extreme cytoplasmic bottleneck in the modern European cultivated potato (*Solanum tuberosum*) is not reflected in decreased levels of nuclear diversity. *Proceedings of the Royal Society London, Series B* **266**, 633-639. J
- Provan, J., Soranzo, N., Wilson, N.J., McNicol, J.W., Forrest, G.I., Cottrell, J. & Powell, W.** 1998. Gene-pool variation in Caledonian and European Scots pine (*Pinus sylvestris* L.) revealed by chloroplast simple-sequence repeats. *Proceedings of the Royal Society of London, Series B* **265**, 1697-1705. J
- Ranocha, P., McDougall, G.J., Hawkins, S., Sterjades, R., Bordier, G., Stewart, D., Cabanes-Macheteau, M., Boudet, A. & Goffner, D.** 1999. Biochemical characterisation and molecular cloning of laccases - a divergent gene family in poplar. *European Journal of Biochemistry* **259**, 485-495. J
- Ratcliff, F.G., MacFarlane, S.A. & Baulcombe, D.C.** 1999. Gene silencing without the gene: RNA-mediated cross protection between viruses. *The Plant Cell* **11**, 1207-1215. J
- Reddy, D.V.R., Mayo, M.A. & Delfosse, P.** 1999. Pecluviruses. In: Webster, R. & Granoff, A. (eds.). *Encyclopaedia of Virology*. Academic Press, London, 1196-1200. R
- Richardson, A. & McDougall, G.J.** 1998. Coniferyl alcohol oxidases as target enzymes for the genetic manipulation of lignin content in trees. In: Davey, M.R., Alderson, P.G., Lowe, K.C. & Power, J.B. (eds.). *Tree Biotechnology: Towards the Millennium*. Nottingham University Press, 301-313. R
- Richardson, A. & McDougall, G.J.** 1998. Purification and characterisation of an oxidase from Sitka spruce. *Abstracts of the 8th Scottish Cell Wall Group Meeting*, Dundee, April 1998, 17. P
- Ritz, K.** 1998. Molecular approaches to the analysis of soil microbial community structure and function. *Soil Microorganisms* **52**, 5-20. J
- Robertson, L., Jones, J.T., Stokkermans, J.P.W.G., Ferguson, M.A.J. & Robertson, W.M.** 1998. Characterisation of the secretions of *Globodera rostochiensis*. *Abstracts of the BSP Spring Meeting*, Exeter, 1998, 9. P

- Robertson, L., Jones, J.T., Stokkermans, J.P.W.G., Ferguson, M.A.J. & Robertson, W.M.** 1998. Functional characterisation of a thioredoxin peroxidase from *Globodera rostochiensis*. *Abstracts of the 24th International Nematology Symposium*, Dundee, 1998, 101. P
- Robertson, L., Robertson, W.M. & Jones, J.T.** 1999. Direct analysis of the secretions of the potato cyst nematode *Globodera rostochiensis*. *Parasitology* **119**, 167-176. J
- Robinson, D., Handley, L.L. & Scrimgeour, C.M.** 1998. A theory for $^{15}\text{N}/^{14}\text{N}$ fractionation in nitrate-grown vascular plants. *Planta* **205**, 397-406. J
- Robinson, D., Handley, L.L., Scrimgeour, C., Ellis, R.P., Forster, B.P., Gordon, D. & Keith, R.** 1998. Using stable isotopes abundances to integrate the stress responses of wild barley population. *Abstracts of Molecular Physiology II: Engineering Crops for Hostile Environments*, Rothamsted, UK. P
- Robinson, D.J. & Murant, A.F.** 1999. Umbraviruses. In: Webster, R. & Granoff, A. (eds.). *Encyclopedia of Virology*. Academic Press, London, 1855-1859. R
- Robinson, D.J., Ryabov, E.V., Raj, S.K., Roberts, I.M. & Taliansky, M.E.** 1999. Satellite RNA is essential for encapsidation of groundnut rosette umbravirus RNA by groundnut rosette assistors luteovirus coat protein. *Virology* **254**, 105-114. J
- Rowell, P., James, W., Smith, W.L., Handley, L.L. & Scrimgeour, C.M.** 1998. ^{15}N discrimination in molybdenum- and vanadium-grown N_2 -fixing *Anabaena variabilis* and *Azotobacter vinelandii*. *Soil Biology and Biochemistry* **30**, 2177-2180. J
- Ryabov, E.V., Robinson, D.J. & Taliansky, M.E.** 1999. A plant virus-encoded protein facilitates long-distance movement of heterologous viral RNA. *Proceedings of the National Academy of Sciences, USA* **96**, 1212-1217. P
- Santa Cruz, S.** 1999. Perspective: phloem transport of viruses and macromolecules - what goes in must come out. *Trends in Microbiology* **7**, 237-241. J
- Santa Cruz, S., Roberts, A.G., Prior, D.A.M., Chapman, S. & Oparka, K.J.** 1998. Cell to cell and phloem-mediated movement of potato virus X: the role of virions. *Plant Cell* **10**, 495-510. J
- Schern, H., Newton, A.C. & Harrington, R.** 1997. Working on a global scale for global change impact assessment in plant pathology. *International Congress for Plant Pathology*, Edinburgh, 9-16 August 1999. www.bspp.org.uk/icpp98/abstracts/4.2/33.html. P
- Schmitt, C., Mueller, A-M., Mooney, A., Brown, D.J.F. & MacFarlane, S.A.** 1998. Immunological detection and mutational analysis of the RNA2-encoded nematode transmission proteins of pea early browning virus. *Journal of General Virology* **79**, 1281-1288. J
- Scotti, I., Soranzo, N., Ferrario, S. & Binelli, G.** 1998. Genetic variation in Norway spruce as revealed by mapped PCR-based markers. *Acta Horticulturae* **457**, 363-370. J
- Scotti, I., Troggio, M., Soranzo, N., Vendramin, G.G. & Bucci, G.** 1998. A new set of PCR-based, locus-specific markers for *Picea abies* (L.) Karst. *Molecular Ecology* **7**, 789-792. J
- Sébédio, J.L. & Christie, W.W. (eds.)** 1998. *Trans fatty acids in human nutrition*. The Oily Press, Dundee, 320 pp. R
- Senthil, G., Williamson, B. & Ramsay, G.** 1998. Efficient transformation of chickpea. *Abstracts of the 15th EUCARPIA General Congress. Genetics and Breeding for Crop Quality*, Viterbo, Italy, 20-25 September 1998. P
- Senthil, G., Williamson, B. & Ramsay, G.** 1998. Efficient transformation and regeneration of chickpea (*Cicer arietinum*). *Abstracts of the 15th EUCARPIA General Congress on Genetics and Breeding for Crop Quality and Resistance*, September 20-25, Viterbo, Italy. P
- Sharga, B.M. & Lyon, G.D.** *Bacillus subtilis* BS107 as an antagonist of potato blackleg and soft rot bacteria. *Canadian Journal of Microbiology* **44**, 777-783. J
- Shaw, M.R., Geoghegan, I.E. & Majerus, M.E.N.** 1999. Males of *Dinocampus coccinellae* (Shrank) (Hymenoptera: Braconidae: Euphorinae). *Entomologist's Record and Journal of Variation* **111**. J
- Shepherd, L.V.T., Taylor, M.A., Schuch, W., Knight, M.E. & Davies, H.V.** 1998. Molecular manipulation of starch structure in potato tubers. *5th International Symposium on the Molecular Biology of the Potato*, Bogensee, Germany, August 1998. P
- Shepherd, T.** 1998. RAD/LRS/001, Radiation - Local Rules and Codes of Practice. Scottish Crop Research Institute, Dundee, 22 pp (and four supplements, 20pp). T
- Shepherd, T.** 1998. SCRI Quality System - Code of Practice. Scottish Crop Research Institute, Dundee, 8 pp. T
- Shepherd, T., Robertson, G.W., Griffiths, D.W. & Birch, A.N.E.** 1997. Effects of environment on the composition of epicuticular wax esters from kale and swede. *Phytochemistry* **46**, 83-96. J
- Simpson, C.G., McQuade, C.M., Lyon, J. & Brown, J.W.S.** 1998. Exon scanning and cooperation between introns in plant intron splicing. *5th UK RNA Processing Workshop*, Ambleside, January 1998, p. 8. P
- Sledz, W., Jafra, S., Waleron, M., Toth, I.K., Hyman, L.J., Pérombelon, M.J.M. & Lojkowska, E.** 1998. Identification of pectolytic erwinias isolated from infected potato plants in Poland. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16 August 1998. P
- Sledz, W., Waleron, M., Toth, I.K., Pérombelon, M.C.M. & Lojkowska, E.** 1997. Identification of bacteria of the genus *Erwinia* by biochemical methods and polymerase chain reaction (PCR). *Proceedings of the Polish Phytopathology Society*, Poznan, Poland. P
- Smith, H., Patron, N., Mayo, M.A., Barker, H. & Liney, M.S.** 1998. Potential risks associated with the release of transgenic crops expressing luteovirus gene sequences. *Abstracts of the International Congress of Plant Pathology*, Edinburgh, 1998, No 1.11.41. P
- Smolenska, L., Roberts, I., Learmonth, D., Porter, A., Harris, W., Wilson, T.M.A. & Santa Cruz, S.** 1998. Production of a functional single chain antibody attached to the surface of a plant virus. *FEBS Letters* **441**, 379-382. J
- Solomon-Blackburn, R.M.** 1998. Progress in breeding potatoes for resistance to virus diseases. *Aspects of Applied Biology* **52**, 299-304. P
- Soranzo, N., Provan, J. & Powell, W.** 1998. Characterisation of microsatellite loci in *Pinus sylvestris* L. *Molecular Ecology* **7**, 1260-1261. J

Publications

- Soranzo, N., Provan, J. & Powell, W.** 1999. An example of microsatellite variation in the mitochondrial genome of conifers. *Genome* **42**, 158-161. J
- Spiridon, L., Popa, V.I. & Stewart, D.** 1999. The use of *Asclepias syriaca* fibres in the pulp and paper manufacture. *Fourth European Symposium on Industrial Crops and Products & 6th Symposium on Renewable Resources for the Chemical Industry*, Bonn, Germany, March 1999. P
- Spiridon, L., Stewart, D. & Popa, V.I.** 1998. Effects of xylanase treatments on straw pulps bleaching. *Proceedings of the 7th International Conference on Biotechnology in the Pulp and Paper Industry*. Canadian Pulp and Paper Association, Montreal, Canada, 53-56. P
- Steele, I.C., Young, I.S., Stevenson, H.P., Meguire, S., Livingstone, M.B., Rollo, M., Scrimgeour, C.M., Rennie, M.J. & Nicholls, D.P.** 1998. Body composition and energy expenditure of patients with chronic cardiac failure. *European Journal of Clinical Investigation* **28**, 33-40. J
- Stephenson, P., Bryan, G., Kirby, J., Collins, A., Devos, K., Busso, C. & Gale, M.D.** 1998. Fifty new loci for the wheat genetic map. *Theoretical and Applied Genetics* **97**, 946-949. J
- Stewart, D.** 1998. Application of Fourier-transform infrared and Raman spectroscopies to plant science. *Recent Advances in Agricultural Chemistry* **1**, 171. J
- Stewart, D.** 1999. The delignification and bleaching of non-wood fibres with peroxymonosulphate. Part 3. Sisal. *Cellulose Chemistry and Technology* **34**, 15-31. J
- Stewart, D.** 1999. The delignification and bleaching of non-wood fibres with peroxymonosulphate. Part 4. Jute. *Cellulose Chemistry and Technology* **36**, 2-28. J
- Stewart, D., Iannetta, P.P.M. & Davies, H.V.** 1998. Changes in the raspberry cell-wall during ripening. A compositional and structural study. *Proceedings of the 7th International Rubus-Ribes Symposium*, Australia and New Zealand, January 1998. P
- Stewart, D., Iannetta, P.P.M. & Davies, H.V.** 1998. Changes in the raspberry cell-wall during ripening. A compositional and structural study. *The 8th International Cell-Wall Meeting*, John Innes Centre, Norwich, September 1998. P
- Stewart, D., Oparka, J., Johnstone, C., Iannetta, P.P.M. & Davies, H.V.** 1998. Effect of high O₂ and N₂ atmospheres on strawberry quality. *Proceedings of the Madrid-COST 915 Conference*, Madrid, Spain, October 1998. P
- Stewart, H.E., Lees, A.K., Monnington, S.J. & Cullen, D.W.** 1998. Assessment of resistance to silver scurf (*Helminthosporium solani*) and variation in pathogen populations. *Proceedings of the European Association for Potato Research Pathology Section Meeting*, Umea, Sweden, 1998. P
- Swanson, M.M. & MacFarlane, S.A.** 1999. The E116 isolate of Dutch pea early-browning virus is a recombinant virus. *Virus Research* **60**, 87-94. J
- Swanson, J.S.** 1998. Factors affecting alcohol production from starch of barleys used for malt whisky distilling. *Production and Uses of Starch*, Edinburgh, April 1998. P
- Swanson, J.S.** 1999. Quantifying cyanogenic glycoside production in the acrospires of germinating barley grains. *Journal of the Science of Food and Agriculture* **79**, 745-749. J
- Swanson, J.S., Thomas, W.T.B., Powell, W., Young, G.R., Lawrence, P.E., Ramsay, L. & Waugh, R.** 1999. Using molecular markers to determine barleys most suitable for malt whisky distilling. *Molecular Breeding* **5**, 103-109. J
- Talbot, M.** 1998. Statistics training and the Internet. *COMPSTAT '98. Proceeding in Computational Statistics*, Bristol, 461-466. P
- Talbot, M., Horgan, G.W., Mann, A.D., Bishop, G.R., Alonso-Sanz, R., Badia, J. & Quednau, H.D.** 1998. SMART - Introducing specialist statistical techniques via the Web. *ICOTS5 - the Fifth International Conference on Teaching Statistics*, Singapore, 409-414. P
- Taliantsky, M.E. & Palukaitis, P.F.** 1999. Satellite RNAs and satellite viruses. In: Webster, R. & Granoff, A. (eds.). *Encyclopaedia of Virology*. Academic Press, London, 1607-1615. R
- Taliantsky, M.E.** 1998. Use of viral vectors expressing molecular reporters for plant virus research. *Abstract from the International Symposium on Molecular Mechanisms of Stress Responses in Plants*, Moscow, 1998, 80. P
- Taliantsky, M.E., Ryabov, E.V., Robinson, D.J. & Palukaitis, P.** 1998. Tomato cell death mediated by complementary plant viral satellite RNA sequences. *Molecular Plant-Microbe Interactions* **11**, 1214-1222. J
- Tattersall, A. & Millam, S.** 1999. Establishment and *in vitro* regeneration studies of the potential oil crop species *Camelina sativa*. *Plant Cell, Tissue and Organ Culture* **55**, 147-149. J
- Taylor, M.A.** 1998. Cloning and characterisation of two potato alpha-glucosidase genes. *5th International Symposium on the Molecular Biology of the Potato*, Bogensee, Germany, August 1998. P
- Thirumala Devi, K., Reddy, S.V., Reddy, K.L.N., Delfosse, P., Mayo, M.A. & Reddy, D.V.R.** 1998. Production of monoclonal antibodies for aflatoxins B1. *Abstracts of 1st Annual Workshop on Natural Toxins*, Bangkok, 1998. P
- Thomas, W.T.B., Baird, E., Fuller, J.D., Lawrence, P., Young, G.R., Young, J., Russell, J., Ramsay, L., Waugh, R. & Powell, W.** 1998. Identification of a QTL decreasing yield in barley linked to *Mlo* powdery mildew resistance. *Molecular Breeding* **4**, 381-393. J
- Thompson, C.E., Poole, W.R., Matthews, M.A. & Ferguson, A.** 1998. A comparison, using minisatellite DNA profiling, of secondary male contribution in the fertilisation of wild and farmed Atlantic salmon (*Salmo salar* L.) ova. *Journal of Canadian Fisheries and Aquatic Sciences* **55**, 2011-2018. J
- Thorpe, C.J., Toth, I.K., Bentley, S.D., Mulholland, V., Hyman, L.J., Pérombelon, M.C.M. & Salmon, G.P.C.** 1998. Mutation in a gene required for both lipopolysaccharide and enterobacterial common antigen biosynthesis affects virulence in the plant pathogen, *Erwinia carotovora* subspecies *atroseptica*. *Molecular Plant Microbe Interactions* **12**, 499-507. J
- Thow, G., Simpson, C.G. & Williamson, B.** 1998. Heterologous expression of raspberry PGIP in *Escherichia coli* to investigate the binding and inhibition of fungal endo-PG. *Proceedings of the International Congress of Plant Pathology*, 9-16 August, Edinburgh. P
- Tiller, S.A., Cochrane, M.P., Cooper, A.M., Dale, M.F.B., Duffus, C.M., Ellis, R.P., Lynn, A., Mackay, G.R., Morrison, I.M., Paterson, L.J., Prentice, R.D.M. &**

- Swanson, J.S.** 1998. Proteins in starch: detection and quantification. *Abstracts of AAB Conference on Production and Uses of Starch*, Edinburgh. P
- Toojinda, T., Baird, E., Booth, A., Broers, L., Hayes, P., Powell, W., Thomas, W., Vivar, H. & Young, G.** 1998. Introgression of quantitative trait loci (QTLs) determining stripe rust resistance in barley: an example of marker-assisted line development with limited resources. *Theoretical and Applied Genetics* **96**, 123-131. J
- Torrance, L.** 1999. Pomoviruses (Pomovirus) 327. In: Webster, R.G. & Granoff, A. (eds.). *Encyclopaedia of Virology Second Edition*. Academic Press, London, 1361-1364. R
- Torrance, L., Zeigler, A., Harper, K., MacIntosh, S.M., Zange, B., Kumari, S. & Mayo, M.A.** 1998. Novel molecular tools for plant virus detection: recombinant antibodies specific for luteoviruses and geminiviruses. *Abstracts of the International Congress of Plant Pathology*, Edinburgh, 1998, No 1.11.49. P
- Toth, I.K., Hyman, L.J. & Toth, R.L.** 1998. A study of diversity in *Erwinia carotovora* subsp. *atroseptica*. *Proceedings 7th International Conference of Plant Pathology*, Edinburgh, 9-16th August 1998. P
- Toth, I.K., Hyman, L.J., Taylor, R. & Birch, P.R.J.** 1998. PCR-based detection of *Xanthomonas campestris* pv. *phaseoli* var. *fusca*s in plant material and its differentiation from *Xanthomonas campestris* pv. *phaseoli*. *Journal of Applied Microbiology* **85**, 327-336. P
- Toth, R., Harper, K., Mayo, M.A. & Torrance, L.** 1998. Selection of scFv molecules specific for a plant virus, potato leafroll luteovirus, from naive phage display libraries and production of a standard assay for routine virus detection. *Abstracts of International Conference on Phage Display Technology*, Cardiff, 1998. P
- Tsevegasuren, W.W., Christie, W.W. & Lösel, D.** 1998. *Tanacetum* (*Chrysanthemum*) *corymbosum* seed oil - a rich source of a novel conjugated acetylenic acid. *Lipids* **33**, 723-727. J
- Tuvesson, S., Öhlund, R., von Post, L., Forster, B.P. & Dayteg, C.** 1998. Use of genetic markers at Svalöf Weibull AB. *Sveriges Utsädesförenings Tidskrift* **108**, 167-175. J
- Van der Beek, J.G., Berthou, F., Blok, V.C., Bossis, M., Castagnone-Sereno, P., Donkers-Venne, T.H.M., Farquette, M., Hoogendoorn, J., Janssen, R., Lange, W., Lollier, V., Mugniéry, D., Phillips, M.S., Poleij, L.M., Robertson, W.M., Semblat, J.P., Sholten, O.E., Tastet, C., Wishart, J., Zijlstra, C.** 1998. European research program for development of practical tools to characterise the phytoparasitic nematodes *Meloidogyne chitwoodi* and possible related species, recently discovered in Europe. *24th International Nematology Symposium*, Dundee, 1998, 120. J
- Varaprasad, K.S., Phillips, M.S. & Blok, V.C.** 1998. Nematode diagnostics in germplasm quarantine laboratories. *Offered Papers in Nematology, AAB Meeting, Linnean Society of London*. O
- Vassilakos, N., Brown, D.J.F. & MacFarlane, S.A.** 1998. The role of non-structural genes of TRV RNA2 in transmission of virus by vector nematodes. *Proceedings of the 9th Hellenic Phytopathological Conference*, Athens, Greece, 1998, 125. P
- Vassilakos, N., MacFarlane, S.A. & Brown, D.J.F.** 1998. Specificity of transmission of five isolates of tobacco rattle and pea early-browning tobaviruses by *Paratrichodorus pachydermus*, *P. anemones* and *Trichodorus primitivus*. *NematoLOGICA* **44**, 596. J
- Vassilakos, N., MacFarlane, S.A. & Brown, D.J.F.** 1998. Specificity of transmission of five isolates of tobacco rattle and pea early-browning tobaviruses by *Paratrichodorus pachydermus*, *P. anemones* and *Trichodorus primitivus*. *24th International Nematology Symposium*, Dundee, 1998, 122. P
- Vassilakos, N., MacFarlane, S.A. & Brown, D.J.F.** 1998. Transmission of isolates of two tobaviruses by three trichodoridae nematode species. *Proceedings of the 30th Annual Meeting of the Organization of Tropical American Nematologists*, Mendoza, Argentina, 1998, 69. P
- Vassilakos, N., MacFarlane, S.A. & Brown, D.J.F.** 1998. Transmission by nematodes of TRV isolate PaY4 carrying mutations in the non-structural genes of RNA2. *7th International Congress of Plant Pathology*, Edinburgh, 1998, 1.13.12. P
- Vassilakos, N., MacFarlane, S.A., Weischer, B. & Brown, D.J.F.** 1998. Exclusivity and complementarity in the transmission of nepo- and tobaviruses by their associated vector nematodes. *Russian Journal of Nematology* **6**, 84. J
- Vellios, E., MacFarlane, S.A. & Brown, D.J.F.** 1998. Preliminary studies on the occurrence and availability to trichodoridae nematodes, of tobaviruses in plant roots. *NematoLOGICA* **44**, 597. J
- Vicente, M.L., Empis, J.A., Deighton, N., Glidewell, S.M., Goodman, B.A. & Rowlands, C.C.** 1998. Use of EPR and ENDOR spectroscopy in conjunction with the spin-trapping technique to study the high-temperature oxidative degradation of fatty acid methyl esters. *Journal of the Chemical Society Perkin Transactions 2*, 449-455. J
- Villena, J.F., Dominguez, E., Stewart, D. & Heredia, A.** 1999. Characterization and biosynthesis of non-degradable polymers in plant cuticles. *Planta* **208**, 181-187. J
- Viola, R. & Sommerville, L.B.** 1998. Identification of an enzyme in protein extracts of potato (*Solanum tuberosum* L.) tubers which interferes with the assay of fructokinase and other enzymes requiring phosphorylated nucleosides. *Plant Science* **132**, 127-137. J
- Viola, R., Nyvall, P. & Pedersen, M.** 1997. A novel starch synthase from the red alga *Gracilaria tenuistipitata* which is selective for UDPglucose. Its characterisation and biotechnological potential 1997. *Proceedings of the 4th IMBC International Marine Biotechnology Conference*, Napoli, 35-38. P
- Viola, R., Nyvall, P., Foster, J. & Sommerville, L.** 1999. An HPLC method for the assay of starch synthase. *Phytochemistry* **50**, 947-951. J
- Viola, R., Vreugdenhil, D., Davies, H.V. & Sommerville, L.** 1997. Accumulation of L-ascorbic in tuberising stolon tips of potato (*Solanum tuberosum* L.). *Journal of Plant Physiology* **152**, 220-225. J
- Walker, A.J., Ford, L., Majerus, M.E.N., Geoghegan, I.E., Birch, A.N.E., Gatehouse, J.A. & Gatehouse, A.M.R.** 1998. Characterisation of the mid-gut digestive proteinase activity of the 2-spot ladybird (*Adalia bipunctata* L.) and its sensitivity to proteinase inhibitors. *Insect Biochemistry and Molecular Biology* **28**, 173-180. J
- Watt, K., Graham, J., Gordon, S.C., Woodhead, M. & McNicol, R.J.** 1999. Current and future transgenic control

Publications

- strategies to vine weevil and other insect resistance in strawberry. *Journal of Horticultural Science and Biotechnology* **74**, 409-421. J
- Whalley, W.R., Bengough, A.G. & Dexter, A.R.** 1998. Water stress induced by PEG decreases the maximum growth pressure of the roots of pea seedlings. *Journal of Experimental Botany* **49**, 168-169. J
- Wheatley, R.E. & Mackie, A.** 1998. The occurrence of volatile organic compound mediated interactions between soil bacteria and fungi. *Proceedings of the 8th International Symposium on Microbial Ecology*, Halifax, Nova Scotia, Canada. P
- White, G.** 1997. The development and application of microsatellite markers in *Swietenia humilis*. *Ecological Genetics Conference*, Leicester, UK. P
- White, G.** 1998. A study of the population genetics of *Swietenia humilis* Zucc. in fragmented forest. *Ph.D. Thesis*, University of Dundee. O
- White, G., Booth, A. & Powell, W.** 1997. The application of SSRs in *Swietenia humilis* Zucc. *Plant Systematics Conference*, Glasgow, UK. P
- White, G., Powell, W. & Boshier, D.H.** 1998. The dynamics of pollen flow detected in a fragmented forest of *Swietenia humilis* Zucc. using SSRs as a marker system. *Symposium of Population Genetics and Gene Flow in Tropical Plants*. Botanical Society of America, American Institute of Biological Sciences, Baltimore, USA. P
- White, G., Powell, W. & Boshier, D.H.** 1998. The effects of habitat fragmentation on the population structure of *Swietenia humilis* Zucc. using SSRs as a marker system. *Ecological Genetics Conference*, St Andrews, UK. P
- White, N.A., Sturrock, C., Ritz, K., Samson, W.B., Bown, J., Stains, H., Palfreyman, J.W. & Crawford, J.W.** 1998. Interspecific fungal interactions in spatially heterogeneous systems. *FEMS Microbiology Ecology* **27**, 21-32. J
- Willmer, P.G., Gordon, S.C., Wishart, J., Hughes, J.P., Matthews, I.M. & Woodford, J.A.T.** 1998. Flower choices by raspberry beetles: cues for feeding and oviposition. *Animal Behaviour* **56**, 819-827. J
- Wilson, T.M.A.** 1998. Engineering plant viruses to produce peptides of medical, veterinary or industrial importance. *Proceedings of the 5th International Symposium on The Biosafety of Field Tests of Genetically Modified Plants and Microorganisms*, Braunschweig, Germany, 6-10 September, 1998. P
- Wilson, T.M.A., Hillman, J.R. & Robinson, D.J.** 1999. Genetic modification in context and perspective. In: Morris, J. & Bate, R. (eds.). *Fearing Food: Risk, Health and Environment*. Butterworth Heinemann, Oxford, 58-77. R
- Wilson, T.M.A., Opara, K.J., Chapman, S., Lacomme, C., Smolenska, L., Ingram, A. & Santa Cruz, S.** 1998. Transfected plants as factories for medical, industrial and agro-environmental proteins. *Proceedings of AIC Worldwide Conference on Keeping Europe Competitive with Transgenic Crops and Molecular Farming*, London, 21-23 September, 1998. P
- Wishart, J., Blok, V.C. & Phillips, M.S.** 1998. Molecular and biochemical tools for differentiating *Meloidogyne chitwoodi* and *M. fallax* from other root-knot nematode species. *24th International Nematology Symposium*, Dundee, 1998, 131. O
- Wishart, J., Blok, V.C., Duncan, I., Phillips, M.S., Robertson, W.M., Robertson, L. & Davis, K.G.** 1998. The importance of variability in an apparently homogeneous group of parthenogenic parasites: *Meloidogyne chitwoodi*. *Abstracts of BSP Spring Meeting*, Exeter, 1998. P
- Wolff, R.L., Pédrone, F., Marpeau, A.M., Christie, W.W. & Gunstone, F.D.** 1998. The seed fatty acid composition and the distribution of 85-olefinic acids in the triacylglycerols of some Taxaceae (Taxus and Torreya). *Journal of the American Oil Chemists' Society* **75**, 1637-1641. J
- Woodford, J.A.T.** 1999. Comparison of sticky thread traps and yellow water traps for monitoring PVY vector aphids in potato fields. *Proceedings Crop Protection in Northern Britain* 1999, 267-272. P
- Xenophontos, S., Robinson, D.J., Dale, M.F.B. & Brown, D.J.F.** 1998. Evidence for persistent, symptomless infection of some potato cultivars with tobacco rattle virus. *Potato Research* **41**, 255-265. J
- Yanai, J., Robinson, D., Young, I.M., Kyuma, K. & Kosaki, T.** 1998. Effects of the chemical form of inorganic nitrogen fertilizers on the dynamics of the soil solution composition and on nutrient uptake by wheat. *Plant & Soil* **202**, 263-270. P
- Yeates, G.W., Boag, B. & Johns, P.M.** 1998. Field and laboratory observations on terrestrial planarians from modified habitats in New Zealand. *Pedobiologia* **42**, 554-562. J
- Yeates, G.W., Boag, B., Evans, K.A. & Neilson, R.** 1998. Impact of climatic changes on the distribution of *Paratrichodorus minor* (Nematoda: Trichodoridae) as estimated using CLIMEX. *Nematologica* **44**, 293-302. J
- Young, I.M. & Ritz, K.** 1998. Can there be a contemporary ecological dimension to soil biology without a habitat? *Soil Biology and Biochemistry* **30**, 1229-1232. J
- Young, I.M.** 1998. The impact of physical architecture on nematode chemotaxis. *Nematologica* **44**, 608-609. P
- Young, I.M., Blanchard, E., Chenu, C., Dangerfield, M., Fragozo, C., Grimaldi, M., Ingram, J. & Monrozier, J.L.** 1998. The interaction of soil biota and soil structure under global change. *Global Change Biology* **4**, 703-712. J
- Young, I.M., Griffiths, B.S., Robertson, W.M. & Mc Nicola, J.** 1998. Nematode (*Caenorhabditis elegans*) movement in sand as affected by particle size, moisture and the presence of bacteria (*Escherichia coli*). *European Journal of Soil Science* **49**, 237-241. J
- Zel, J., Stanic, D., Strukelj, R., Struc, B., Reavy, B. & Barker, H.** 1998. The transformation of tobacco *Nicotiana tabacum* cv. Samsun by the coat protein gene of PVYNIN. *Abstract of the 2nd Symposium on Plant Physiology*, Slovenia, 1998, 115. P
- Zhang, C., Chen, C., Xin, Z., Machray, G., Adams, M.J. & Wilson, T.M.A.** 1998. Genetic engineering to improve Chinese wheat cultivars for resistance against endemic soil-transmitted viruses. *Abstracts of EuropaBio '98, Where Biotech meets Biobizz*, Brussels, October 27-30, 1998, 13-14. P
- Zhang, Z. & Forster, B.P.** 1998. Comparison of early microspore development *in vitro* and early embryo development *in vivo* in barley: is the direction of the second division critical? *Abstracts of European COST Action 824 on Gametic Embryogenesis*, Dublin, Ireland. P

- Zhang, Z., Keith, R. & Forster, B.P.** 1998. Early cell division in embryogenic microspore cultures compared with normal embryo development in barley. *Abstracts of European COST Action 824 on Fundamentals of Gamete Embryogenesis*, Copenhagen, Denmark. P
- Zheng, J. & Brown, D.J.F.** 1998. The occurrence in Zhejiang Province, People's Republic of China, of *Xiphinema americanum sensu lato* populations with three and four juvenile developmental stages (JDS). *Nematologica* **44**, 609. J
- Zheng, J., Peneva, V. & Brown, D.J.F.** 1998. A new *Longidorus* species associated with *Camellia japonica* in Hangzhou, China. *Nematologica* **44**, 610. J
- Zheng, J., Zhou, X., Robinson, D.J. & Brown, D.J.F.** 1998. Examination of potential virus-vector Longidoridae and Trichodoridae nematodes from Zhejiang, China. *Nematologica* **44**, 610-611. J
- Zheng, J., Zhou, X., Robinson, D.J. & Brown, D.J.F.** 1998. Longidoridae and Trichodoridae present in the Hangzhou region of China. *Organization of Tropical American Nematologists*, Mendoza, Argentina, 1998, 19. P
- Zhou, X., Robinson, D.J. & Harrison, B.D.** 1998. Types of variation in DNA-A among isolates of East African cassava mosaic virus from Kenya, Malawi and Tanzania. *Journal of General Virology* **79**, 2835-2840. J
- Ziegler, A., Mayo, M.A. & Torrance, L.** 1998. Synthetic antigen from a peptide library can be an effective positive control in immunoassays for the detection of two geminiviruses. *Phytopathology* **88**, 1302-1305. J