

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., Benson, E.E., Staines, H.J., Bremner, D.H., Millam, S. & Deighton, N. 1999. Effects of the lipid peroxidation products 4-hydroxy-2-nonenal and malondialdehyde on the proliferation and morphogenetic development of *in vitro* plant cells. *Journal of Plant Physiology* 155, 376-386. J

Allcroft, D.J., Glasbey, C.A., Kyriazakis, I. & Tolkamp, B.J. 1999. What is the critical timescale of a cow's feeding behaviour? *Proceedings of the 31st Meeting of the Agricultural Research Modellers' Group*. *Journal of Agricultural Science* 133, 344-345. P

Anderson, M., Cartinhow, S., Dicks, J., Bevan, M., Gale, M., Trick, M. & Waugh, R. 1999. Mendel and the UK CropNet. *Plant and Animal Genome VII*, San Diego, January 1999, 62. P

Anderson, M., Cartinhow, S., Dicks, J., Bevan, M., Gale, M., Trick, M. & Waugh, R. 1999. UK CropNet and CORBA. *Plant and Animal Genome VII*, San Diego, January 1999, 42. P

Anon. 1999. *Didymella applanata*. [Original text by B. Williamson]. In: *Crop Protection Compendium*, Wallingford, UK: CAB International. R

Anon. 1999. *Elsinoe veneta*. [Original text by B. Williamson]. In: *Crop Protection Compendium*, Wallingford, UK: CAB International. R

Anon. 1999. Investigation of feral oilseed rape populations. *Research Report No. 12 DETR* (project officer 1993-95). T

Anon. 2000. *Leptosphaeria coniothyrium*. [Original text by B. Williamson]. In: *Crop Protection Compendium*, Wallingford, UK: CAB International. R

Arif, M., Reavy, B. & Torrance, L. 1999. Read-through protein gene of potato mop-top furovirus is associated with acquisition and transmission of the virus by *Spongospora subterranea* f.sp. *subterranea*. *Pakistan Journal of Botany* 31, 125-136. J

Armstrong, M.R., Blok, V.C. & Phillips, M.S. 2000. A multipartite mitochondrial genome in the potato cyst nematode *Globodera pallida*. *Genetics* 154, 181-192. J

Armstrong, S.J., Fransz, P., Marshall, D.F. & Jones, G.H. 1998. Physical mapping of DNA repetitive sequences to mitotic and meiotic chromosome of *Brassica oleracea* var. *alboglabra* by fluorescence *in situ* hybridisation. *Heredity* 81, 666-673. J

Avrova, A., Dellagi, A., Lyon, G., Toth, R., Toth, I. & Birch, P. 1999. Differences in gene expression in resistant and susceptible potato cultivars inoculated with *Phytophthora infestans*. *Proceedings of the 9th International Congress of Molecular Plant-Microbe Interactions*, Amsterdam, 25-30 July, 121. P

Avrova, A., Lyon, G., Stewart, H., Toth, R., Toth, I. & Birch, P. 1999. Potato genes involved in the hypersensitive response to *Phytophthora infestans* are implicated in programmed cell death. *Proceedings of the 9th International Congress of Molecular Plant-Microbe Interactions*, Amsterdam, 25-30 July, 122. P

Avrova, A.O., Stewart, H.E., De Jong, W., Heilbronn, J., Lyon, G.D. & Birch, P.R.J. 1999. A cysteine protease gene is expressed early in resistant potato interactions with *Phytophthora infestans*. *Molecular Plant-Microbe Interactions* 12, 1114-1119. J

Avrova, A.P., Lyon, G.D. & Birch, P.R.J. 1999. Nucleotide sequence of a potato serine palmitoyltransferase gene which is up-regulated in the incompatible interaction with *Phytophthora infestans*. *Plant Physiology* 120, 1206. J

Barker, H. 1999. Development of virus resistance in GM potatoes. *SAC Potato Newsletter*, 1999, 7-9. O

Barker, H. & Waterhouse, P.M. 1999. The development of resistance to luteoviruses mediated by host genes and pathogen-derived transgenes. In: Smith, H.G. & Barker, H. (eds.). *The Luteoviridae*. CAB International, 169-210. R

Barker, H., Reavy, B. & McGeachy, K.D. 1999. Development of potato clones with genetically engineered resistance to potato mop-top virus. *Proceedings Crop Protection in Northern Britain*, 1999, 217-222. P

Barker, H., Reavy, B., McGeachy, K.D. & Dawson, S. 1999. A unique form of transgenic resistance to potato mop-top virus induced by transformation with the coat protein gene. *Phyton* 39, 47-50. J

Barthram, G.T., Bolton, G.R. & Elston, D.A. 1999. The effects of cutting intensity and neighbour species on plants of *Lolium perenne*, *Poa annua*, *Poa trivialis* and *Trifolium repens*. *Agronomie* 19, 445-546. J

Beard, P.M., Henderson, D., Daniels, M., Pirie, A., Buxton, D., Graig, A., Hutchings, M.R., McKendrick, I., Rhind, S., Stevenson, K. & Sharp, J.M. 1999. Evidence of paratuberculosis in fox (*Vulpes vulpes*) and stoat (*Mustela erminea*). *Veterinary Record* 145, 612-613. J

Bell, K., Avrova, A., Bryan, G., De Jong, W., Milbourne, D., Toth, I., Birch, P. & Waugh, R. 1999. Constructing physical genetic maps of *Erwinia carotovora* subspecies to examine their genomic organisation, pathogenicity and host range differences. *Proceedings of the 9th International Congress of Molecular Plant-Microbe Interactions*, Amsterdam, 25-30 July, 214. P

Bell, K.S., Philp, J.C., Aw, D.J.W. & Christofi, N. 1999. Identification and environmental detection of *Rhodococcus* species by 16S rDNA-targeted PCR. *Applied and Environmental Microbiology* 87, 472-480. J

- Bell, K.S., Roberts, J., Williams, N.A., Harrison, J.G., Toth, I.K., Cooke, D.E.L., Duncan, J.M. & Claxton, J.R.** 1999. Detection and quantification of *Spongospora subterranea* f.sp. *subterranea* using specific PCR primers. *European Journal of Plant Pathology* 105, 905-915. J
- Bengough, A.G.** 1999. Physics of the soil-root interface. *The Rhizosphere*, Society of Chemical Industry, London, 23rd November 1999. P
- Bengough, A.G. & Kirby, J.M.** 1999. Tribology of the root cap in maize (*Zea mays* L.) and peas (*Pisum sativum* L.). *New Phytologist* 142, 421-425. J
- Bennett, S.J., Hayward, M.D. & Marshall, D.F.** 2000. Morphological differentiation in four species of the genus *Lolium*. *Genetic Resources and Crop Evolution* 47, 247-255. J
- Birch, A.N.E.** 1999. Genetically Modified Foods, a flavour of the current issues. *Foodfuture debates – Feedback from UK Question Time Debates* 16, 22. O
- Birch, A.N.E., Majerus, M.E.N., Geoghegan, I.E., McNicol, J.W., Hackett, C., Gatehouse, A.M.R. & Gatehouse, J.A.** 1999. Ecological impact of the anti-aphid snowdrop lectin on predatory ladybirds. *Breeding for Resistance to Insects and Mites. IOBC Bulletin* 22, 77-82. P
- Birch, P.R.J., Avrova, A.O., Dellagi, A., Lacomme, C., Santa Cruz, S. & Lyon, G.D.** 2000. To die and let live: Programmed cell death in plants in response to pathogen attack. *Annual Plant Reviews* 4, 175-197. J
- Birch, P.R.J., Toth, I.K., Avrova, A.O., Dellagi, A., Lyon, G.D. & Pillay, D.G.** 2000. Recent advances in the isolation of differentially expressed genes. *South African Journal of Science* 96, 1-3. J
- Blackwell, A., Lock, K.A., Marshall, B., Boag, B. & Gordon, S.C.** 1999. The spatial distribution of *Culicoides impunctatus* biting midge larvae. *Medical and Veterinary Entomology* 13, 362-371. J
- Boag, B. & Neilson, R.** 1999. The New Zealand flatworm problem in Scotland: an update. *Proceeding of Crop Protection in Northern Britain*, 1999, 133-138. P
- Boag, B., Jones, H.D., Neilson, R. & Santoro, G.** 1999. Spatial distribution and relationship between the New Zealand flatworm, *Arthurdendyus triangulatus* and earthworms in a grass field in Scotland. *Pedobiologia* 43, 340-344. J
- Boutsika, K., Wendt, K.R., Blok, V.C., MacFarlane, S.A. & Brown, D.J.F.** 1999. Molecular relationships of trichodorid nematode vectors and tobacco rattle tobravirus isolates. *Proceedings of Parasitic Helminths from Genomes to Vaccines II*, Edinburgh, 1999. P
- Boutsika, K., Wendt, K.R., Blok, V.C., MacFarlane, S.A. & Brown, D.J.F.** 1999. Molecular relationships of trichodorid nematode vectors and tobacco rattle tobravirus isolates. *Abstracts of the AAB Offered Papers in Nematology Meeting*, London, 1999. P
- Boutsika, K., Wendt, K.R., Blok, V.C., MacFarlane, S.A. & Brown, D.J.F.** 1999. Molecular detection of trichodorid nematodes and tobacco rattle tobravirus. *Helminthologia* 36, 62. P
- Bown, J., Samson, W.B., Crawford, J., Staines, H.J., White, N.A., Sturrock, C.J., Ritz, K. & Palfreyman, J.W.** 1999. Modelling the spatio-temporal dynamics of fungal communities using a stochastic cellular automaton. *Philosophical Transactions of the Royal Society London B* 266, 1947-1952. J
- Bradshaw, J.E.** 1999. Conventional breeding in potatoes: global achievements. *Abstracts, Global Conference on Potato*, New Delhi, India, December 6-11, 1999, 161-162. P
- Bradshaw, J.E., Stewart, H.E. & Mackay, G.R.** 1999. New approaches to breeding for late blight resistance: objectives, sources and technology. In: Crissman, L. & Lizarraga, C. (eds.). *Late Blight: A Threat to Global Food Security Volume 1. Proceedings of the Global Initiative on Late Blight Conference*, Quito, Ecuador, March 16-19, 1999, 43-46. P
- Bradshaw, J.E., Todd, D. & Wilson, R.N.** 2000. Use of tuber progeny tests for genetical studies as part of a potato (*Solanum tuberosum* subsp. *tuberosum*) breeding programme. *Theoretical and Applied Genetics* 100, 772-781. J
- Bragard, C., Kantorowicz, J. & Mayo, M.A.** 1999. Heterologous expression of the coat protein and P39 gene of Indian peanut clump virus. *Abstracts of the International Working Group on Plant Viruses with Fungal Vectors*, Asilomar, California, 1999, 9. P
- Brendel, O., Iannetta, P.P.M. & Stewart, D.** 2000. A rapid and simple method to isolate pure alpha-cellulose. *Phytochemical Analysis* 11, 7-10. J
- Brennan, R. & Millam, S.** 1999. Conservation of small fruit germplasm. In: Benson, E.E. (ed.). *Plant Conservation Biotechnology*. Taylor and Francis, London, 155-163. R
- Brown, D., Beswick, P.H., Bell, K.S. & Donaldson, K.** 2000. Depletion of glutathione and ascorbate in lung lining fluid by respirable fibres. *Annals of Occupational Hygiene* 44, 101-108. J
- Brown, J.W.S., Simpson, C.G., Hedley, P.E., McQuade, C.M., Lyon, J.M., Watters, J.A. & Machray, G.C.** 1999. Exon bridging interactions in plant pre-mRNA splicing. *Proceedings International Botanical Congress*, St Louis, USA. P
- Brown, J.W.S., Simpson, C.G., Hedley, P.E., McQuade, C.M., Lyon, J.M., Watters, J.A. & Machray, G.C.** 1999. Control of splicing of a mini-exon from potato invertase pre-mRNAs. *EMBO Workshop*, Leysin, Switzerland, pA5. P
- Bruce, A., Wheatley, R.E., Humphris, S.N., Hackett, C.A. & Florence, M.** 2000. Production of volatile organic compounds by *Trichoderma* spp. in media containing different amino acids and their effect on selected wood decay fungi. *Hözforschung* 54, 481-486. J
- Bryan, G.J., McNicol, J.W., Meyer, R.C., Ramsay, G. & De Jong, W.S.** 1999. Polymorphic simple sequence repeat markers in chloroplast genomes of Solanaceous plants. *Theoretical and Applied Genetics* 99, 859-867. J
- Bryan, G.J., Milbourne, D., Waugh, R. & De Jong, W.** 1999. Genome analysis and the potential for molecular breeding in potato. *Global Conference on Potato*, New Delhi, India, December 1999. P
- Buckland, S.T., MacMillan, D.C., Duff, E.I. & Hanley, N.** 1999. Estimating mean willingness to pay from dichotomous choice contingent valuation studies. *The Statistician* 48, 109-124. J
- Burford, N., Jabs, W., Hoeck, W., Rowan, M. & Stewart, D.** 1999. Development of a new coated membrane textile using natural plant fibres. *International Forum for the Development of Natural Fibres*, Copenhagen. P
- Canto, T. & Palukaitis, P.** 1999. Are tubules generated by the 3a protein necessary for cucumber mosaic virus

movement? *Molecular Plant-Microbe Interactions* 12, 985-993. J

Canto, T. & Palukaitis, P. 1999. CMV RNA 1-mediated transgenic resistance can be overcome by virus released from the phloem, despite a differential suppression of viral RNA 1 operating at the cellular level. *Abstracts of the Thirteenth John Innes Symposium*, Norwich, UK, 1999, 50. P

Canto, T. & Palukaitis, P. 1999. Replicase-mediated resistance to cucumber mosaic virus does not inhibit localization and/or trafficking of the viral movement protein. *Molecular Plant Microbe-Interactions* 12, 743-747. J

Canto, T. & Palukaitis, P. 1999. The hypersensitive response to cucumber mosaic virus in *Chenopodium amaranticolor* requires virus movement outside the initially infected cell. *Virology* 265, 74-82. J

Carnegie, S.F., Hoekstra, R., Schüler, K., van Loon, J.P., Ellissèche, D., Veteläinen, M., Ramsay, G., Lennartson, M., Kehoe, H.W., Mix-Wagner, G., Vögel, R.M. & Zuna-Kratky, B. 1999. Potato genetic resources: goals and achievements. *EAPR meeting*, Sorrento, April 1999. P

Carss, D.N., Elston, D.A., Kruuk, H. & Bacon, P.J. 1999. Selective otter (*Lutra lutra*) predation on eels (*Anguilla anguilla*) in lochs and streams: spatial and temporal trends over a seven year period. *BES Winter Meeting*, University of Leicester, January 1999. P

Carss, D.N., Elston, D.A., Nelson, K.C. & Kruuk, H. 1999. Spatial and temporal trends in unexploited yellow eel stocks in two shallow lakes and associated streams. *Journal of Fish Biology* 55, 636-654. J

Carter, J.V., Brennan, R.M. & Wisniewski, M. 1999. Low-temperature tolerance of blackcurrant flowers. *HortScience* 34, 855-859. J

Caten, C.D. & Newton, A.C. 2000. Variation in cultural characteristics, pathogenicity, vegetative compatibility and electrophoretic karyotype within field populations of *Stagonospora nodorum*. *Plant Pathology* 49, 219-226. J

Charters, Y.M., Robertson, A., Squire, G.R., Ramsay, G., Thompson, C. & Mackay, G.R. 1999. Distribution, persistence and gene flow of oilseed rape in the Tayside study area. *Proceedings Crop Protection in Northern Britain*, 1999, Dundee, 23-25 March, 109-114. P

Chen, Q., Robertson, L., Jones, J.T., Blok, V.C., Phillips, M.S. & Brown, D.J.F. 1999. Magnetic capture of nematodes using antiserum and lectin coated dynabeads. *Abstracts of the AAB offered Papers in Nematology Meeting*, Linnean Society, London, 1999. P

Chessell, J.M., Bengough, A.G., Billett, M.F., Crawford, J.W. & Young, I.M. 1999. Structural heterogeneity significantly affects exchange of reactive ions in soil. *British Society of Soil Science Meeting - Recent Developments in Soil Science*, London, April 1999. P

Chessell, J.M., Zhang, X., Deeks, L.K., Crawford, J.W., Low, D., Bengough, A.G. & Young, I.M. 1999. Modelling flow and adsorption through structurally heterogeneous soil. *Soil Structure/Carbon Workshop*, Canada, August 1999. P

Chudek, J.A., Geoghegan, I.E., Lowe, C., Hunter, G., MacKay, R.L., Majerus, M.E.N., McNicol, R.J. & Birch, A.N.E. 1999. A study of the effects of dietary changes on the MRM characteristics of the seven-spot ladybird *Coccinella septempunctata*. *Fifth International Conference on NMR Microscopy (Abstracts)*, Heidelberg, p15. P

Clark, L.J., Bengough, A.G., Whalley, W.R., Dexter, A.R. & Barraclough, P.B. 1999. Evidence of varietal differences in the maximum growth pressure of seedling pea roots. *Plant and Soil* 209, 101-109. J

Clegg, C.C., Ritz, K., Griffiths, B.S. & Wheatley, R.E. 1999. Microbial community structure under different grasslands: increasing the resolution in the analysis of soil community DNA from a broad-scale approach to the detection of genes encoding bacterial nitrite reductase. *Proceedings of 6th Symposium on Bacterial Genetics and Ecology*, Florence, Italy, June 20-24. P

Collins, A., Milbourne, D., Ramsay, L., Meyer, R., Chatot-Balandras, C., Oberhagemann, P., De Jong, W., Gebhardt, C., Bonnel, E. & Waugh, R. 1999. QTL for field resistance to late blight in potato are strongly correlated with maturity and vigour. *Molecular Breeding*, 1-12. J

Cooke, D.E.L., Drenth, A., Duncan, J.M., Wagels, G. & Brasier, C.M. 2000. A molecular phylogeny of *Phytophthora* and related Oomycetes. *Fungal Genetics and Biology* 30, 17-32. J

Cooke, D.E.L., Williams, N.A., Hagenaar-de Weerd, M. & Bonants, P.J.M. 2000. PCR-based identification of *Phytophthora* species. *EPPO Conference*, Wageningen, February. P

Cordell, S., Goldstein, G., Meinzer, F.C. & Handley, L.L. 1999. Allocation of nitrogen and carbon in leaves of *Metrosideros polymorpha* regulates carboxylation capacity and $\delta^{13}\text{C}$ along an altitudinal gradient. *Functional Ecology* 13, 811-818. J

Cox, S., Mayo, M.A. & Jones, A.T. 2000. The occurrence of dsRNA species in apparently healthy and virus-infected *Ribes* cultivars, and evidence that one such species originates from a member of the virus family *Totiviridae*. *European Journal of Plant Pathology* 106, 353-364. J

Craig, J., Dejardin, A., Handley, L.L., Gardner, C.D., Wang, T., Hedley, C. & Smith, A.M. 1999. Mutations at the *rug4* locus alter the carbon and nitrogen metabolism of pea plants through an effect on sucrose synthase. *Plant Journal* 17, 353-362. J

Crawford, J.W., Nunan, N., Ritz, K., Wu, K. & Young, I.M. 1999. Integrating microbial processes for risk evaluation at successive scales. *DTI Dissemination Meeting on Biological Treatment of Soil and Water*, Warwick, U.K. P

Croser, C., Bengough, A.G. & Pritchard, J. 1999. The effect of mechanical impedance on root growth in pea (*Pisum sativum*). 1. Rates of cell flux, mitosis, and strain during recovery. *Physiologia Plantarum* 107, 277-286. J

Czarnes, S., Hallett, P.D., Bengough, A.G. & Young, I.M. 2000. Root-and-microbial-derived mucilages affect soil structure and water transport. *European Journal of Soil Science* 51, 435-443. J

Czarnes, S., Hiller, S., Dexter, A.R., Hallett, P.D. & Bartoli, F. 1999. Root:soil adhesion in the maize rhizosphere: the rheological approach. *Plant and Soil* 211, 69-86. J

Dalla Costa, L. & MacKerron, D.K.L. 2000. Plant and soil water status: what is their role and what can we do with their values? In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 175-187. R

D'Arcy, C.J., Domier, L. & Mayo, M.A. 2000. Family *Luteoviridae*. In: Van Regenmortel, M.H.V., Fauquet,

- C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Virus Taxonomy Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York, San Diego, 775-784. R
- D'Arcy, C.J., Domier, L.L. & Torrance, L.** 1999. Detection and diagnosis of Luteoviruses. In: Smith, H.G. & Barker, H. (eds.). *The Luteoviridae*. CABI Publishing, Wallingford. R
- Davidson, D.A., Carter, C., Boag, B., Long, D., Tipping, R. & Tyler, A.** 1999. Analysis of pollen in soils: processes of incorporation and redistribution of five soil profile types. *Soil Biology and Biochemistry* 31, 643-653. J
- Davidson, E.M., Hosie, M.J., Willett, B., Schroeder, H.C., Müller, W.E.G. & Stewart, D.** 1999. Novel mannose-specific lectins: their specificity and activity with regard to immunodeficiency viruses. *INTERLEC 18*, University of Portsmouth. P
- Davies, H.V.** 1999. Starch biosynthesis in potato tubers expressing an *E. coli* glgc 16 gene. *Proceedings of the Genetic Tailoring of Novel Starch Polymers Meeting*, Carry-le-Rouet, France, 19. P
- Davies, H.V.** 2000. Advances in potato improvement through genetic engineering. In: Arencibia, A.D. (ed.). *Plant Genetic Engineering. Towards the Third Millennium*. Elsevier, 154-158. R
- Davies, H.V.** 2000. Potential risks of GMOs. The role of science in the GMO debate: identification of risks, uncertainties and benefits. *Genetically Modified Organisms and World Trade Conference*, Brussels. (Plenary lecture). P
- Davies, P.J., Simko, I., Mueller, S.M., Yencho, G.C., Lewis, C., McMurphy, S., Taylor, M.A., & Ewing E.E.** 1999. Quantitative trait loci for polyamine content in an RFLP-mapped potato population and their relationship to tuberization. *Physiologia Plantarum* 106, 210-218. J
- Davila, J.A., Loarce, Y., Ramsay, L., Waugh, R. & Ferrer, E.** 1999. Comparison of RAMP and SSR markers for the study of wild barley genetic diversity. *Hereditas* 131, 5-13. J
- De Neve, S., MacKerron, D.K.L. & Igrasz, J.** 2000. Measurement techniques for soil and plant water status. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 188-205. R
- De, Maine, M.J. & Simpson, G.** 1999. Somatic chromosome number doubling of selected potato genotypes using callus culture or the colchicine treatment of shoot nodes in vitro. *Annals of Applied Biology* 134, 125-130. J
- De, Maine, M.J., Lees, A.K., Muir, D.D., Bradshaw, J.E. & Mackay, G.R.** 1999. Long-day adapted Phureja as a resource for potato breeding and genetic research. In: *Abstracts, Global Conference on Potato*, New Delhi, India, December 6-11, 1999, 175. P
- Deighton, N. & McDougall, G. J.** 1998. Coniferyl alcohol oxidase operates through a bound free radical intermediate. *Proceedings of the 8th Scottish Cell Wall Meeting*, Dundee, 22. P
- Deighton, N., Muckenschnabel, I., Goodman, B.A & Williamson, B.** 1999. Lipid peroxidation and the oxidative burst associated with infection of *Capsicum annuum* by *Botrytis cinerea*. *The Plant Journal* 20, 485-492. J
- Deighton, N., Muckenschnabel, I., Goodman, B.A., Lyon, G.D. & Williamson, B.** 1999. Accumulation of cytotoxic 4-hydroxyalkenals during the infection of *Capsicum annuum* by *Botrytis cinerea*. *Proceeding of 9th International Congress on Molecular Plant-Microbe Interactions*, Amsterdam, Netherlands, 25-30 July, Abstract 9.13. P
- Deighton, N., Richardson, A., Stewart, D. & McDougall, G.J.** 1999. Cell wall associated oxidases from the lignifying xylem of angiosperms and gymnosperms: monolignol oxidation. *Holzforschung* 53, 503-510. J
- Dellagi, A., Avrova, A., Heilbronn, J., Montesano, M., Toth, I., Lyon, G. & Birch, P.** 1999. Isolation and characterisation of signalling genes induced by *Erwinia carotovora* in potato. *Proceedings of the 9th International Congress of Molecular Plant-Microbe Interactions*, Amsterdam, 25-30 July, Abstract 7.32, p97. P
- Dellagi, A., Birch, P.R.J., Heilbronn, J., Avrova, A.O., Montesano, M. & Lyon, G.D.** 2000. A potato gene, *erg-1*, is rapidly induced by *Erwinia carotovora* ssp. *atroseptica*, *Phytophthora infestans*, ethylene, and salicylic acid. *Journal of Plant Physiology* 157, 201-205. J
- Dellagi, A., Birch, P.R.J., Heilbronn, J., Lyon, G.D. & Toth, I.K.** 2000. cDNA-AFLP analysis of differential gene expression in the bacterial plant pathogen *Erwinia carotovora*. *Microbiology* 146, 165-171. J
- Dellagi, A., Toth, I., Heilbronn, J., Lyon, G. & Birch, P.** 1999. Novel approaches for the isolation of differentially expressed genes from *Erwinia carotovora*. *Proceedings of the 9th International Congress of Molecular Plant-Microbe Interactions*, Amsterdam, 25-30 July, Abstract 16.44, p179. P
- Devi, K.T., Reddy, K.L.N., Delfosse, P., Reddy, G., Mayo, M.A. & Reddy, D.V.R.** 1999. Production and characterization of monoclonal antibodies to aflatoxin B1. *Letters in Applied Microbiology* 29, 284-288. J
- Dicks, J., Anderson, M., Cardle, L., Cartinhour, S., Couchman, M., Davenport, G., Dickson, J., Gale, M., Marshall, D., May, S., McWilliam, H., O'Malia, A., Ougham, H., Trick, M., Walsh, S. & Waugh, R.** 2000. UKCropNet: a collection of databases and bioinformatics resources for crop plant genomics. *Nucleic Acids Research* 28, 104-107. J
- Durban, M., Hackett, C.A. & Currie, I.D.** 1999. Blocks, trend and interference in field trials. *Proceedings of the 14th International Workshop on Statistical Modelling* 492-495. P
- Durban, M.L., Hackett, C.A. & Currie, I.D.** 1999. Approximate standard errors in semi-parametric models. *Biometrics* 55, 699-703. J
- Ehwaeti, M.E., Fargette, M., Phillips, M.S. & Trudgill, D.L.** 1999. Host status differences and their relevance to damage by *Meloidogyne incognita*. *Nematology* 1, 421-432. J
- Elliott, M.J., McNicol, J.W., Phillips, M.S. & Trudgill, D.L.** 1999. Modelling of *Globodera pallida* - A Nematode out of Control? *Abstracts of AAB Nematology Meeting*, Linnean Society, London, 1999. P
- Ellis, R.P., Ferguson, E., Swanston, J.S., Forrest, J., Fuller, J., Lawrence, P.E., Powell, W., Russell, J., Tester, R.F., Thomas, W.T.B. & Young, G.R.** 1999. Use of DNA based marker-based assays to define and select malting characteristics in barley. *Home-grown Cereals Authority Report No.183*. O

- Ellis, R.P., Forster, B.P., Thomas, W.T.B., Robinson, D., Handley, L.L., Scrimgeour, C., Russell, J. & Powell, W. 2000. Wild barley: a new source of genes for crop improvement in the 21st century? *Journal of Experimental Botany* 51, 9-17. J
- Elston, D.A., Gauld, J.H., Miller, J.A., Shewry, M.C. & Underwood, F.M. 1999. The National Countryside Monitoring Scheme: accuracy assessment. *Scottish Natural Heritage Research, Survey and Monitoring Report* No 133. O
- Escaler, M., Aranda, M.A., Roberts, I.M., Thomas, C.L. & Maule, A.J. 2000. A comparison between virus replication and abiotic stress (heat) as modifiers of host gene expression in pea. *Molecular Plant Pathology* 1, 159-167. J
- Fauquet, C.M. & Mayo, M.A. 1999. Abbreviations for plant virus names - 1999. *Archives of Virology* 144, 1249-1273. J
- Fenton, B., Stanley, K., Fenton, S. & Bolton-Smith, C. 1999. Differential binding of the insecticidal lectin GNA to human blood cells. *The Lancet* 354, 1354-1355. J
- Fenton, B., Stanley, K., Fenton, S., Bolton-Smith, C. 1999. GM food debate – Reply. *The Lancet* 354, 1728-1729. J
- Fielding, W.J., Mann, A. & Talbot, M. 1999. TER-DES. A computer program for designing terrace experiments. *Hill Agriculture Research Project*. T
- Filipe, J.A.N. 1999. Hybrid closure-approximation to epidemic models. *Physica A* 266, 238-241. J
- Finckh, M.R., Gacek, E.S., Goyeau, H., Merz, U., Mundt, C.C., Munk, L., Nadziak, J., Newton, A.C., de Vallavieille-Pope, C. & Wolfe, M.S. 1999. Cereal cultivar and species mixtures in practice. *COST 817 Annual Report for 1999*. O
- Finney, S.K., Wanless, S. & Elston, D.A. 1999. Natural attachment duration of adult female ticks *Ixodes uriae* (Acari: Ixodidae) on free-living adult black-legged kittiwakes *Rissa tridactyla*. *Experimental and Applied Acarology* 23, 765-769. J
- Forbes, P., Millam, S., Harrier, L.A., Gollotte, A. & Hooker, J.E. 1999. Transformation of the arbuscular mycorrhizal fungus *Gigaspora rosea* Nicolson & Schenck by particle bombardment. *COST Action 821: Arbuscular Mycorrhizas in Sustainable Soil-Plant Systems. Report of 1998 Activities*, EUR 18958, 158. O
- Forster, B.P. & Thomas, W.T.B. 1999. Application of doubled haploid and molecular markers in backcross conversion breeding of barley. *Proceedings of Workshop of Working Groups 1 and 4 on Gametic embryogenesis in monocots*, Jokioinen, Finland. P
- Forster, B.P., Ellis, R.P., Newton, A.C., Thomas, W.T.B., Tubersoa, R., This, D., El-Gamal, A.S., Bahri, M.H. & Ben Salem, M. 2000. Molecular markers for abiotic stress tolerance in barley. *Journal of Experimental Botany* 51, 19-27. J
- Forster, B.P., Ellis, R.P., Newton, A.C., Tubersoa, R., This, D., El-Enein, D. & Bahri, H.B.S.M. 1999. Stable yields in Mediterranean barley: application of molecular technologies in improving drought tolerance and mildew resistance. *Report on Contract number: ERBIC18-CT98-0311 (DG12-MZCN)*. T
- Forster, B.P., Ellis, R.P., Newton, A.C., Tubersoa, R., This, D., El-Gamal, A.S., Bahri, M.H. & Ben Salem, M. 1999. Molecular breeding of barley for droughted low input agricultural conditions. In: Gissel-Nielsen, G. & Jensen, A. (eds.). *Plant nutrition - Molecular Biology and Genetics*. Kluwer Academic Publishers, Netherlands, 359-363. R
- Forster, B.P., Ellis, R.P., Thomas, W.T.B., Newton, A.C., Tubersoa, R., This, D., El-Enein, R.A., Bahri, M.H. & Ben Salem, M., 2000. The development and application of molecular markers for abiotic stress tolerance in barley. *Journal of Experimental Botany* 51, 19-27. J
- Franco-Lara, L. & Barker, H. 1999. Characterisation of resistance to potato leafroll virus accumulation in *Solanum phureja*. *Euphytica* 108, 137-144. J
- Franco-Lara, L., McGeachy, K.D., Commandeur, U., Martin, R.R., Mayo, M.A. & Barker, H. 1999. Transformation of tobacco and potato with cDNA encoding the full-length genome of *Potato leafroll virus*: evidence for a novel virus distribution and host effects on virus multiplication. *Journal of General Virology* 80, 2813-2822. J
- Gal-On, A., Canto, T. & Palukaitis, P. 1999. Characterisation of genetically modified cucumber mosaic virus expressing histidine-tagged 1a and 2a proteins. *Archives of Virology* 145, 37-50. J
- Gatehouse, A.M.R., Davison, G.M., Stewart, J.N., Gatehouse, L.N., Kumar, A., Geoghegan, I.E., Birch, A.N.E. & Gatehouse, J.A. 1999. Concanavalin A inhibits development of tomato moth (*Lacanobia oleracea*) and peach-potato aphid (*Myzus persicae*) when expressed in transgenic potato plants. *Molecular Breeding* 5, 711-717. J
- Geoghegan, I.E. 2000. Ladybird 'spot-checks'. *NERC News spring 2000*, 4-5. O
- Geoghegan, I.E. 2000. The seven spot ladybird – a model insect! *Journal of Biological Education* 34, 95-100. J
- Geoghegan, I.E. & Majerus, M.E.N. 1999. Intra- and inter-specific oviposition preferences of the parasitoid wasp *Dinocampus coccinellae* with respect to host species, age, size and sex. *Aphidophaga VII*, Bromont, Canada, 31 August-4 September. P
- Geoghegan, I.E., Chudek, J.A., MacKay, R.L., Lowe, C., McNicol, R.J., Birch, A.N.E., Hunter, G. & Majerus, M.E.N. 1999. A study of the anatomy of *Coccinellae septempunctata* and the changes induced by diet and by infection with the larva of *Dinocampus coccinellae* using magnetic resonance microimaging. *Aphidophaga VII*, Bromont, Canada, 31 August-4 September. P
- Gheysen, G., Abad, P., Blevé, T., Blok, V.C., Fenoll, C., Gatehouse, J.A., Grundler, F., Lindsey, K., Ohl, S., Sagen, H., Shields, R. & Helder, J. 1999. Molecular analysis of the interaction between plants and sedentary endoparasitic nematodes and approaches to engineer nematode resistance into crops. *Proceedings of the Biotechnology Conference*, Brussels, 1999. P
- Gheysen, G., Abad, P., Blevé, T., Blok, V.C., Fenoll, C., Gatehouse, J.A., Grundler, F., Lindsey, K., Ohl, S., Sagen, H., Shields, R. & Helder, J. 1999. Concerted efforts to develop handles for plant parasitic nematode control. *Proceedings of the Phytosphere '99. The European Plant Biotechnology Network 7-9*, Rome, 1999. P
- Gillespie, T., Brennan, R.M., Raffle, S. & McNicol, R.J. 1998. Environmental factors affecting long-cane raspberry production. *Proceedings of the ADAS/HRI/EMRA Soft Fruit Conference 'New Developments in the Soft Fruit Industry'*, November, 150-154. P

- Glasbey, C.A.** 1999. Deterministic and statistical approaches to image analysis. *Fourth International Congress on Industrial and Applied Mathematics Edinburgh*, 1999, 226. P
- Glasbey, C.A.** 1999. Inference from X-ray CT images of sheep. *Workshop of Spatial Modelling, Inference and Computation in Image Analysis*, Gothenburg, Sweden. P
- Glasbey, C.A. & Mardia, K.V.** 1999. Problems in image warping. *Statistical Methods for Image Processing. A satellite Conference of the 52nd International Statistical Institute session*, Uppsala, Sweden, 26. P
- Glasbey, C.A. & Robinson, C.D.** 1999. Inference from X-ray CT images of sheep. *Bulletin of the International Statistical Institute 52nd Session LVIII 1*, 469-472. R
- Glasbey, C.A. & Robinson, C.D.** 1999. The application of X-ray CT to sheep breeding. *Livestock Monitoring Workshop*, Silsoe Research Institute. P
- Glasbey, C.A., Robinson, C.D. & Young, M.J.** 1999. Segmentation of X-ray CT images using stochastic templates. *Proceedings of 10th International Conference on Image Analysis and Processing, ICIAP'99*, IEEE Computer Society, 746-751. P
- Goffart, J.P., Olivier, M., MacKerron, D.K.L., Postma, R. & Johnson, P.** 2000. Spatial and temporal aspects of sampling of potato crops for nitrogen analysis. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 83-102. R
- Goodman, B.A., Muckenschnabel, I., Deighton, N., Lyon, G.D., Stewart, D. & Williamson, B.** 1999. The involvement of free radicals and paramagnetic transition metal ions in the interaction between plant tissues and the grey mould fungus, *Botrytis cinerea*. *Proceedings of the International Congress on Cellular Responses to Oxidative and Osmotic Stress, Sensing, Signalling and Gene Expression*, Egmond aan Zee, The Netherlands, 28 August-1 September, p102. P
- Gordon, S.C.** 1999. *Rubus* pests - their effect on fruit quality. *Proceedings ADAS/EMRA/HRI-Hortitech Soft Fruit Conference 1999, New Developments in the Soft Fruit Industry*, Ashford, Kent, pp 81-95. P
- Gordon, S.C. & Woodford, T.** 1999. Clay-coloured weevils on raspberries in Scotland. *Root Weevils listserver*. RootWeevils@listproc.wsu.edu Thu, 22 Apr 1999 17:18 GMT. O
- Gordon, S.C., Graham, J. & Gatehouse, A.M.R.** 1999. The role of genetically modified strawberries in managing vine weevil (*Otiorhynchus sulcatus*). *Abstract of the 3rd International Vine Weevil Workshop*, Angers, France 9-11 June, 31-32. P
- Gordon, S.C., Jones, A.T. & Fenton, B.** 1999. Eriophyid mites on *Ribes* - a complex story! *Proceedings of 8th Meeting of the IOBC-WPRS/Eucarpia Working Group Breeding for Resistance to Insects and Mites*, Dundee, 59-64. P
- Gordon, S.C., Woodford, J.A.T. & Williamson, B.** 1999. *Reduced Application of Chemicals in European Raspberry Production*. Report to EU FAIR-FA-S2-CT97-9038, 135pp. T
- Graner, A., Kellerman, A., Proeseler, G., Schiemann, A., Bauer, G., Peterka, H., Waugh, R., Pellino, B. & Ordon, F.** 1999. Molecular mapping and genetic fine structure of the *rym5* locus encoding resistance to different strains of the Barley Yellow Mosaic Virus Complex. *Theoretical and Applied Genetics* 98, 285-290. J
- Gray, L.J., Johnstone, I.L. & Jones, J.T.** 1999. Characterisation of three members of a collagen gene subfamily from the potato cyst nematode *Globodera pallida*: use of *Caenorhabditis elegans* as a model to study gene function. *Abstracts of the BSP Spring Meeting*, Warwick, 1999, 78. P
- Greuter, W., Hawksworth, D.L., McNeill, J., Mayo, M.A., Minelli, A., Sneath, P.H.A., Tindall, B.J.T.P. & Tubbs, P.** 1998. Biocode: the future international rules for scientific names of organisms: preliminary draft. *Informatore Botanico Italiano* 29, 143-171. J
- Greuter, W., Hawksworth, D.L., McNeill, J., Mayo, M.A., Minelli, A., Sneath, P.H.A., Tindall, B.J., Trehane, P. & Tubbs, P.** 1998. The prospective international rules for the scientific names of organisms. *Taxon* 47, 150. J
- Gribbon, B.M., Pearce, S.R., Kalendar, R., Schulman, A.H., Paulin, L., Jack, P., Kumar, A. & Flavell, A.J.** 1999. Phylogeny and transpositional activity of *Ty1-copia* group retrotransposons in cereal genomes. *Molecular and General Genetics* 261, 883-891. J
- Griffiths, B.S. & Ritz, K.** 1999. Stability of soil ecosystem processes following the experimental manipulation of soil microbial community diversity. *Soil Ecology Society International Conference*, Chicago, USA, May 1999. P
- Griffiths, B.S. & Trudgill, D.L.T. (eds.).** 1999. Nematodes in soil ecosystems. *Selected papers from the 24th European Society of Nematologists' Symposium*. *Plant and Soil* 212(S), vii. P
- Griffiths, B.S., Bonkowski, M., Dobson, G., & Caul, S.** 1999. Changes in soil microbial community structure in the presence of microbial-feeding nematodes and protozoa. *Pedobiologia* 43, 297-304. J
- Griffiths, B.S., Clegg, C.C., Wheatley, R.E. & Ritz, K.** 1999. An approach to increase the resolution of molecular biological analysis of soil microbial community structure in managed grasslands. *Soil Ecology Society International Conference*, Chicago, USA, May 1999. P
- Griffiths, B.S., Clegg, C.D., Wheatley, R.E. & Ritz, K.** 1999. Molecular biological analysis of soil microbial community structure in upland grasslands. *Out of the Black Box: Ecological Lessons from the Underground*, *Soil Ecology Society International Conference*, Chicago, U.S.A. P
- Griffiths, B.S., Geoghegan, I.E. & Robertson, W.M.** 2000. Testing genetically engineered potato, expressing the lectins GNA and ConA, on soil populations and processes under laboratory, glasshouse and field conditions. *Journal of Applied Ecology* 37, 159-170. J
- Griffiths, B.S., Ritz, K., Bardget, R.D., Cook, R., Christensen, S., Ekelund, F., Sørensen, S., Bååth, E., Bloem, J., de Ruiter, P., Dolfing, J. & Nicolardot, B.** 1999. Effect of environmental change on the biodiversity and function of belowground microbial communities (MICRODIVERS). *Terrestrial Ecosystems Research Initiative Synthesis Meeting*, Egmond an Zee, Netherlands. P
- Griffiths, D.W., Robertson, G.W., Birch, A.N.E. & Brennan, R.M.** 1999. Evaluation of thermal desorption and solvent elution combined with polymer-entrainment for the analysis of volatiles released by leaves from midge (*Dasyneura tetensi*)-resistant and susceptible blackcurrant (*Ribes nigrum* L.) cultivars. *Phytochemical Analysis* 10, 328-334. J

- Griffiths, D.W., Robertson, G.W., Shepherd, T. & Ramsay, G.** 1999. Epicuticular waxes and volatiles from *Vicia faba* flowers. *Phytochemistry* 52, 607-612. J
- Haase, N., Goffart, J.P., MacKerron, D.K.L. & Young, M.W.** 2000. Determination of crop nitrogen status using invasive methods. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 55-71. R
- Hackett, C.A.** 1999. Linkage analysis and QTL mapping for outbreedings species. *Linkage analysis and QTL mapping Workshops IV*, Australia, 1999. O
- Hallett, P.D. & Young, I.M.** 1999. Small scale water repellency and transport in soils: method, theory, and applications. *British Society of Soil Science, Young Scientists Meeting*, London. P
- Hallett, P.D., Baumgartl, T., Czarnes, S., Ritz, K. & Young, I.M.** 1999. Reduced rates in rapid wetting and hydraulic transport in soil caused by biological hot-spots. *Soil Structure/Carbon Workshop*, Leamington, Canada, August 23-35. P
- Hallett, P.D., Chessell, J.M., Crawford, J.W., Deeks, L., Zhang, X. & Young, I.M.** 1999. Analysis of watersheds using fractals for environmental risk assessment. *Progress in Environmental Science* 1, 153-176. J
- Hallett, P.D., Dexter, A.R., Bird, N.R.A. & Seville, J.P.K.** 1999. Scaling of the structure and strength of soil aggregates. *International Workshop of ISSS Commission I: Soil Physics, Subsoil Compaction and Soil Dynamics –Processes and Environmental Consequences*, Kiel, Germany. P
- Hancock, R.D., Smith, A.W., MacLeod, M., Taylor, M.A., Davies, H.V. & Viola, R.** 1999. L-Galactose metabolism in *Chlorella pyrenoidosa* mutants with enhanced ascorbic acid biosynthesis. *Proceedings of the Plant Protein Club 1999 Annual Symposium*. P
- Handley, L.L., Austin, A., Robinson, D., Scrimgeour, C.M., Raven, J.A., Heaton, T.H.E., Schmidt, S. & Stewart, G.R.** 1999. The 15-N natural abundance ($\delta^{15}\text{N}$) of ecosystem samples reflects measures of water availability. *Australian Journal of Plant Physiology* 26, 185-199. J
- Handley, L.L., Azcón, R., Lozano, J.M.R. & Scrimgeour, C.M.** 1999. Plant ^{15}N is associated with arbuscular mycorrhization, drought and N deficiency. *Rapid Communications in Mass Spectroscopy* 13, 1320-1324. J
- Harper, K. & Ziegler, A.** 1999. Recombinant antibodies - applications in plant science and plant pathology. Taylor and Francis, London, 216. R
- Harper, K., Toth, R.L., Mayo, M.A. & Torrance, L.** 1999. Properties of a panel of single chain variable fragments against *Potato leafroll virus* obtained from two phage display libraries. *Journal of Virological Methods* 81, 159-168. J
- Harrier, L.A. & Wright, F.** 1999. Isolation of the 3-phosphoglycerate kinase gene from the arbuscular mycorrhizal fungus *Glomus mosseae* (Nicol. & Gerd.) Gerdemann & Trappe. *SAC Crop Science Research* 1998, 16-18. P
- Harrison, B.D. & Robinson, D.J.** 1999. Natural evolutionary processes in whitefly-transmitted geminiviruses (Begomoviruses). *Abstracts of the XIth International Congress of Virology*, Sydney, Australia, 1999, 156. P
- Harrison, B.D. & Robinson, D.J.** 1999. Natural genomic and antigenic variation in whitefly-transmitted geminiviruses (Begomoviruses). *Annual Review of Phytopathology* 37, 369-398. J
- Harrison, R.E., Morel, S., Brennan, R.M., Hunter, E.A. & Muir, D.D.** 1999. Genotypic, environmental and processing effects on the sensory character of *Rubus* and *Ribes*. *Acta Horticultureae* 505, 25-31. P
- Haverkort, A.J. & MacKerron, D.K.L. (eds.).** 2000. *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 353pp. R
- Haverkort, A.J. & MacKerron, D.K.L.** 2000. Recommendations and trends in research and practice of application of nitrogen and water to potato crops. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 301-309. R
- Hedley, P.E., Harrower, B.E., McQuade, C.M., Powell, W. & Machray, G.C.** 1999. Malting barley EST databases and transcription mapping. *Abstracts of the 16th Long Ashton International Symposium on Biotechnology of Cereals: Tools, Targets and Triumphs*, Bristol. P
- Hillman, J.R.** 1998. Semiochemicals: foresight and hindsight. *Pesticide Science* 54, 296-299. J
- Hillman, J.R.** 1999. Technology transfer and intellectual property in plant technology. *Proceedings of the International Conference on Technology Transfer in Biotechnologies as a Catalyst for National Development*, Beirut, 4-6 October, 2-14. P
- Hillman, J.R.** 1999. Genetic modification: old friend or new enemy? *AGM of BioIndustry Association*, London, 20 October, 2pp. O
- Hillman, J.R.** 2000. Scientific and market opportunities for agriculture. Will the potential be realised in the UK? *Journal of the Science of Food and Agriculture* 80, 2081-2088. R
- Hinks, C.E., Hunter, E.A., Lowman, B.G. & Scott, N.A.** 1999. Effect of breed type, sex, method of rearing, winter nutrition and subsequent grazing treatment on lifetime performance and carcass composition in a 20-month beef system: carcass characteristics. *Animal Science* 69, 465-472. J
- Hodge, A., Robinson, D., Griffiths, B.S. & Fitter, A.H.** 1999. Nitrogen capture by plants grown in N-rich organic patches of contrasting size and strength. *Journal of Experimental Botany* 50, 1243-1252. J
- Hodge, A., Robinson, D., Griffiths, B.S. & Fitter, A.H.** 1999. Why plants bother: root proliferation results in increased nitrogen capture from an organic patch when two grasses compete. *Plant, Cell and Environment* 22, 811-820. J
- Hodge, A., Stewart, J., Robinson, D., Griffiths, B.S. & Fitter, A.H.** 1999. Plant, soil fauna and microbial responses to N-rich organic patches of contrasting temporal availability. *Soil Biology and Biochemistry* 31, 1517-1530. J
- Hodge, A., Stewart, J., Robinson, D., Griffiths, B.S. & Fitter, A.H.** 1999. Exploring rhizosphere dynamics using stable isotopes. *The Rhizosphere, Society of Chemical Industry Conference*, London, November 1999. P
- Hodgson, M.E.A.** 1999. A Bayesian restoration of an ion channel signal. *Journal of the Royal Statistical Society Series B* 61, 95-114. J
- Hodgson, M.E.A. & Green, P.J.** 1999. Bayesian choice among Markov models of ion channels using Markov chain Monte Carlo. *Proceedings of the Royal Society of London*,

Series A 455, 3425-3448. J

Holland, M.J., Palmarini, M., Garcia-Goti, M., Gonzalez, L., McKendrick, I.J., De Las Heras, M. & Sharp, J.M. 1999. Jaagsiekte retrovirus establishes a pantropic infection of lymphoid cells and mononuclear phagocytes of sheep with naturally and experimentally acquired pulmonary adenomatosis. *Journal of Virology* 73, 4004-4008. J

Hopkins, R.J., Wright, F., Birch, A.N.E. & McKinlay, R.G. 1999. The decision to oviposit: a sequential analysis of the post-alighting behaviour of *Delia floralis*. *Physiological Entomology* 24, 41-50. J

Horgan, G.W. 1999. An investigation of the geometric influences on pore space diffusion. *Geoderma* 88, 55-71. J

Horgan, G.W. & Glasbey, C.A. 1999. Statistical analysis of experiments on genetically modified potatoes conducted at the Rowett Research Institute. *BioSS submission to the Royal Society*. T

Horgan, G.W., Elston, D.A., Franklin, M.F., Glasbey, C.A., Hunter, E.A., Talbot, M., Kempton, R.A., McNicol, J.W. & Wright, F. 1999. Teaching statistics to biological research scientists. *Journal of the Royal Statistical Society, Series D* 48, 393-400. J

Hughes, D.A., Reid, C. & Stubbs, R.J. 1999. Within-subject reproducibility of dietary restraint questionnaires. *Proceedings of the Nutrition Society Meeting* 58, 8A. P

Hughes, K.J.D., Inman, A.J. & Cooke, D.E.L. 2000. Comparative testing of nested PCR-based methods with bait plant tests for detecting *Phytophthora fragariae* var. *fragariae* (strawberry red core) in infected strawberry roots from fruit crops in the UK. *EPPO Conference*, Wageningen, February. P

Humphris, S., Wheatley, R.E., Bruce, A. & Payne, C. 1999. Assessment of the inhibition of wood decay fungi by volatiles produced by *Trichoderma* spp. *30th Annual Meeting of the International Research Group on Wood Preservation*, Rosenheim, Germany, IRG/WP 99-10302. P

Hyman, L.J., Birch, P.R.J., Dellagi, A., Avrova, A.O. & Toth, I.K. 2000. A competitive PCR-based method for the detection and quantification of *Erwinia carotovora* subsp. *atroseptica* on potatoes. *Letters of Applied Microbiology* 30, 330-335. J

Iannetta, P.P.M., Sexton, R., Neelam, A., Jones, C., Taylor, M. & Davies, H.V. 1999. The biochemical and molecular characterisation of raspberry fruit (*Rubus idaeus* L.) abscission cellulase. *Abstracts of the 9th Scottish Plant Cell Wall Group Meeting*, Glasgow University. P

Iannetta, P.P.M., Van den Berg, J., Wheatley, R., McNicol, R. & Davies, H.V. 1999. A causal role for ethylene in raspberry fruit ripening. *Acta Horticultureae* 502, 427-428. P

Iason, G.R., Mantecon, A.R., Sim, D.A., Gonzalez, J., Foreman, E., Bermudez, F.F. & Elston, D.A. 1999. Can grazing sheep compensate for a daily foraging time constraint? *Journal of Animal Ecology* 68, 87-93. J

Iijima, M., Griffiths, B. & Bengough, A.G. 1999. Quantification of sloughed cap cells and carbon exudation of maize seedling roots in compacted sand. *11th Conference of Japanese Society for Root Research*, 22 May 1999, Tsukuba, Japan. P

Illius, A.W., Gordon, I.J., Elston, D.A. & Milne, J.D.

1999. Diet selection in goats: a test of intake-rate maximization. *Ecology* 80, 1008-1018. J

James, E.K., Iannetta, P.P.M., Deeks, L., Sprent, J.I. & Minchin, F.R. 2000. Detopping causes production of intercellular occlusions in both the cortex and infected region of soybean nodules. *Plant Cell and Environment* 23, 377-386. J

Jenkinson, A., Franklin, M.F., Wahle, K. & Duthie, G.G. 1999. Dietary intakes of polyunsaturated fatty acids and indices of oxidative stress in human volunteers. *European Journal of Clinical Nutrition* 53, 523-528. J

Jennings, N., Squires, J., Taylor, M., Williamson, B., McNicol, R.J. & Graham, J. 1999. Scottish raspberry development programme: Project Number SF 35. *HDC News*, June, 7-9. O

Johnston, A.M., Scrimgeour, C.M., Henry, M.O. & Handley, L.L. 1999. Isolation of NO₃⁻-N as 1-phenylazo-2-naphthol (Sudan-1) for measurement of δ¹⁵N. *Rapid Communications in Mass Spectrometry* 13, 1531-1534. J

Jones, A.T. & Mayo, M.A. 2000. Genus *Idaeovirus*. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Virus Taxonomy. Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York, San Diego, 938-941. R

Jones, C.S. 1999. Gene expression during fruit ripening in raspberry (*Rubus idaeus*). *Ph.D. Thesis*, University of Dundee. O

Jones, E.R.L. & Newton, A.C. 1999. *Rhynchosporium* of barley. *United Kingdom Cereal Pathogen Virulence Survey Annual Report for 1998*, 67-74. T

Jones, J.T., Blair, L., Sobczak, M., Clot, N. & Perry, R.N. 1999. Up-regulation of host and parasite genes during the life-cycle of cyst nematodes. *Abstracts of the BSP Spring Meeting*, Warwick, 1999, 68. P

Jones, J.T., Blok, V.C., Bakker, E., Popeijus, H., Helder, H., Phillips, M.S. & Smat, G. 1999. ESTs from PCN - sequences and function. *Abstracts of the AAB offered Papers in Nematology Meeting*, Linnean Society, London, 1999. P

Jones, J.T., Prior, A.E., Robertson, L., Smant, G., Popeijus, H., Ferguson, M.A.J., Blok, V.C. & Kennedy, M.W. 1999. Secretions of plant parasitic nematodes - form and function. *Proceedings of Parasitic Helminths from Genomes to Vaccines II*, Edinburgh, 1999. P

Kaplan, I.B., Canto, T. & Palukaitis, P. 1999. Partial resistance to potato virus X in transgenic tobacco expressing resistance to potato virus Y. *Abstracts of the 18th Annual Meeting of the American Society for Virology*, Amherst, Massachusetts, 1999, 191. P

Karanastasi, E., Roberts, I.M. & Brown, D.J.F. 1999. Immunolocalization of tobacco rattle virus particles at the specific site of retention in vector trichodoriid nematodes. *Abstracts of the Association of Applied Biologists Meetings*, York, 1999. P

Karanastasi, E., Roberts, I.M., MacFarlane, S.A. & Brown, D.J.F. 1999. The location of specifically retained Tobacco rattle virus particles in the oesophageal tract of the vector *Paratrichodorus anemones*. *Helminthologia* 36, 62-63. J

Karanastasi, E., Vassilakos, N., Roberts, I.M.,

- MacFarlane, S.A. & Brown, D.J.F.** 2000. Immunogold localization of tobacco rattle virus particles within the virus-vector nematode *Paratrichodorus anemones*. *Journal of Nematology* 32, 5-12. J
- Karanastasi, E., Vellios, E., Roberts, I.M., MacFarlane, S.A. & Brown, D.J.F.** 2000. The application of Safranin-O for staining virus-vector trichodoric nematodes for electron and confocal laser scanning microscopy. *Nematology* 2, 237-246. J
- Karvonen, T., MacKerron, D.K.L. & Kleemola, J.** 2000. Role of simulation and other modelling approaches in decision making. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 250-261. R
- Kelly, L.A., Gibson, G.J., Gettinby, G., Donachie, W. & Low, J.C.** 1999. The use of dummy data points when fitting bacterial growth curves. *Institute of Mathematics and its Application. Journal of Mathematics Applied in Medicine and Biology* 16, 155-170. J
- Kempton, R.A., Ferris, S.J. & David, O.** 1999. Fitting the design to the model - repeated measure experiments with carryover. *Proceedings of XXXIst Journées de Statistique*, Grenoble, France, May 1999, 73-77. P
- Kirby, J.M., Bengough, A.G. & O'Sullivan, M.F.** 1999. Influence of soil strength on root growth - experiments and analysis using a critical state model. *Third International Conference on Soil Dynamics*, Tiberias, Israel, August 3-7, 1997, 109-118. P
- Kosaki, T., Yanai, J., Kumagai, K. & Ritz, K.** 1999. Macro- and meso-scale spatial dependency of physico-chemical and biological properties of farm soils. *3rd Conference of the Working Group on Pedometrics of the International Union of Soil Science*, Sydney, Australia. P
- Kumagai, K., Kosaki, T., Yanai, J. & Ritz, K.** 1999. Geostatistical analysis of spatial variability of soil physicochemical and biological properties in constructed farms. *Annual Meeting of the Japanese Society of Soil Science and Plant Nutrition*, Sapporo, Japan. P
- Kumar, A. & Bennetzen, J.L.** 1999. Plant retrotransposons. *Annual Review of Genetics* 33, 479-532. J
- Kumar, P.L., Fenton, B. & Jones, A.T.** 1999. Identification of Cecidophyopsis mites (Acari : Eriophyidae) based on variable simple sequence repeats of ribosomal DNA internal transcribed spacer-1 sequences via multiplex PCR. *Insect Molecular Biology* 8, 347-357. J
- Kumar, P.L., Jones, A.T., Sreenivasulu, P. & Reddy, D.V.R.** 1999. Unfolding the mystery of the causal agent of pigeon pea sterility mosaic disease. *Abstracts of the International Conference on Life Sciences in the Next Millennium*, University of Hyderabad, India, 1999, 65-66. P
- Kumar, P.L., Jones, A.T., Sreenivasulu, P. & Reddy, D.V.R.** 1999. Characterisation of a virus associated with sterility mosaic of pigeon pea. *Abstracts of the XIth International Congress of Virology*, Sydney, Australia, 1999, 90. P
- Kynoch, R.J., Ferro, R.S.T. & Zuur, G.** 1999. The effect on juvenile haddock by-catch of changing cod-end twine thickness in EU trawl fisheries. *Marine Technology Society Journal* 33, 61-72. J
- Lanham, P.G. & Brennan, R.M.** 1999. Genetic characterisation of gooseberry (*Ribes grossularia* subgen. *grossularia*) germplasm using RAPD, ISSR and AFLP markers. *Journal of Horticultural Science and Biotechnology* 74, 361-366. J
- Lanham, P.G., Korycinska, A. & Brennan, R.M.** 2000. Genetic diversity within a secondary gene pool for *Ribes nigrum* L. revealed by RAPD and ISSR markers. *Journal of Horticultural Science and Biotechnology* 75, 371-375. J
- Leader, D.J., Clark, G.P., Watters, J.A., Bevan, A.F., Shaw, P.J. & Brown, J.W.S.** 1999. Splicing-independent processing of plant box C/D and box H/ACA small nucleolar RNAs. *Plant Molecular Biology* 39, 1091-1100. J
- Lees, A.K., Stewart, H.E., Bradshaw, J.E., DeMaïne, M.J. & Ramsay, G.** 1999. Sources of resistance to pathogens in potato. *Proceedings Crop Protection in Northern Britain* 1999, 229-235. P
- Liskova, M. & Brown, D.J.F.** 1999. Regional distribution of longidorid nematodes in the Slovak Republic. *Helminthologia* 36, 60. P
- Liskova, M. & Brown, D.J.F.** 1999. The occurrence of Longidoridae (Nematoda) in forests in the Slovak Republic. *Helminthologia* 36, 49-56. J
- Liu, J.** 1999. Coordination of biochemical systems as nonlinear dynamical systems. *Abstract of the 4th European Conference on Mathematics applied to Biology and Medicine*, Amsterdam, The Netherlands. P
- Liu, J.** 1999. Dependence of flux distribution and system coordination on dynamical states for biochemical systems with multiple coexisting states. *Journal of Biological Systems* 7, 67-84. J
- Luo, Z.W., Hackett, C.A., Bradshaw, J.E., McNicol, J.W. & Milbourne, D.** 2000. Predicting genotypes and gene segregation for tetrasomic inheritance. *Theoretical and Applied Genetics* 100, 1067-1073. J
- Lyon, G.D. & Newton, A.C.** 1999. Implementation of elicitor mediated induced resistance in agriculture. In: Agrawal, A.A., Tuzun, S. & Bent, E. (eds.) *Induced Plant Defense Against Pathogens and Herbivores: Biochemistry, Ecology and Agriculture*. American Phytopathological Society Press, St Paul, 299-318. R
- MacFarlane, S.A.** 1999. Molecular biology of the tobamoviruses. *Journal of General Virology* 80, 2799-2807. J
- MacFarlane, S.A. & Popovich, A.H.** 1999. Efficient expression of foreign proteins in roots from tobamovirus vectors. *Virology* 267, 29-35. J
- Machray, G.C., Hedley, P.E. & Davidson, D.** 1999. Tissue-specific promoters for gene expression. *International Patent Application No. PCT/GB99/03442*. T
- Machray, G.C., Hedley, P.E., Maddison, A.L., Meyer, R.C. & Davidson, D.** 1999. Phloem, pollen and axil tissue-specific promoters of potato. *Abstracts of the Second Annual CHI Conference on Impact of Molecular Biology on Crop Production and Crop Protection*, Minneapolis, USA. P
- Machray, G.C., Hedley, P.E., Maddison, A.L., Meyer, R.C., Aziz, N., Davidson, D., Simpson, C.G., Clarke, G., McQuade, C., Watters, J. & Brown, J.W.S.** 1999. Expression of potato cell wall invertase genes. *Abstracts of The Role of Invertases in Plant Carbohydrate Partitioning and Beyond Workshop*, University of Regensburg, Germany. P
- Mackay, G.R.** 1999. Potential benefits of genetically modified potatoes. *Proceedings Crop Protection in Northern Britain*, Dundee, 23-25 March, 203-210. P

- Mackay, G.R.** 1999. XVIth EUCARPIA Congress: 2001, A Plant Breeding Odyssey. *Journal of Applied Genetics* 40, 155-156. O
- MacKerron, D.K.L.** 1998. Management Advisory Package for Potatoes (MAPP). *BPC Potato Technology*, 1998. T
- MacKerron, D.K.L.** 1998. Optimizing the application of nitrogen. *BPC Potato Technology*, 1998. T
- MacKerron, D.K.L.** 1998. Physiological age in the tuber and sprout. *Potato Research* 41, 192-193. P
- MacKerron, D.K.L.** 1999. Don't put all the nitrogen on at once. *Potato Review* 9, 20-22. O
- MacKerron, D.K.L.** 1999. New advisory package for potatoes. *BPC Technical Note*, 2pp. T
- MacKerron, D.K.L.** 1999. The GCTE Potato Network. *GILB - Global Initiative on Late Blight Newsletter* No. 7, April 1999, 3. O
- MacKerron, D.K.L.** 2000. Introduction: The purpose of this Manual of Methods. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 11-14. R
- MacKerron, D.K.L.** 2000. Perspectives for use in practice - how can assessment of plant and crop nitrogen status be used in practice? In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 103-110. R
- MacKerron, D.K.L. & Haverkort, A.J.** 2000. Summary (Translated into ten languages). In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands. R
- MacKerron, D.K.L. & Young, M.W.** 1998. Consequences of attempts to optimize the supply of N to the potato crop: differences in soil nitrogen. *Potato Research* 41, 196-197. P
- MacKerron, D.K.L. & Young, M.W.** 1999. The effects of nitrogen nutrition on tuber dry matter concentration. *Abstracts 14th Triennial Conference*, EAPR, Sorrento, Italy, 128-129. P
- MacKerron, D.K.L., Marshall, B. & Tonberg, J.** 1998. Management advisory package for potatoes (MAPP): decision support for the grower. *Potato Research* 41, 181-182. P
- MacKerron, D.K.L., Marshall, B., McNicol, J.W., Turley, D., Wiltshire, J.J.J. & Young, M.W.** 1999. The development of an improved screening method to characterize new cultivars for tuber size distribution. *Abstracts 14th Triennial Conference*, EAPR, Sorrento, Italy, 148-149. P
- MacMillan, D.C., Smart, T.S. & Thorburn, A.P.** 1999. A field experiment involving cash and hypothetical charitable donations. *Environmental and Resource Economics* 14, 399-412. J
- Maddison, A.L., Hedley, P.E., Meyer, R.C., Aziz, N., Davidson, D. & Machray, G.C.** 1999. Expression of tandem invertase genes supports sexual and vegetative growth in potato. *Plant Molecular Biology* 41, 741-751. J
- Majerus, M.E.N., Geoghegan, I.E. & Majerus, T.M.O.** 1999. Adaptive preferential selection of young coccinellid hosts by the parasitoid wasp *Dinocampus coccinellae* (Shrank) (Hymenoptera: Braconidae). *European Journal of Entomology* 97, 161-164. J
- Malloch, G., Fenton, B. & Butcher, R.D.J.** 2000. Molecular evidence for multiple infections of a new subgroup of Wolbachia in the European raspberry beetle *Byturus tomentosus*. *Molecular Ecology* 9, 77-90. J
- Marshall, D.F. & Hillman, J.R.** 2000. New concepts and approaches to biodiversity. In: Wrigley, S.K., Hayes, M.A., Thomas, R., Chrystal, E.J.T. & Nicholson, N. (eds.). *Biodiversity. New Leads for the Pharmaceutical and Agrochemical Industries*. Royal Society of Chemistry, Cambridge, 17-21. R
- Marshall, B., MacKerron, D.K.L., Young, M.W., McNicol, J.W. & Wiltshire, J.** 1998. Managing tuber size distributions in potato crops. *Aspects of Applied Biology* 52, 21-27. P
- Marshall, D.F. & Russell, J.R.** 1999. The use of SSR markers to study gene flow in South American Eucalyptus seed orchards. *Symposium on the Molecular Genetics of Eucalyptus*, University of Tasmania, Feb 1999. P
- Matthews, D., McNicol, J., Harding, K. & Millam, S.** 1999. 5' anchored simple sequence repeat primers are useful for analysing potato somatic hybrids. *Plant Cell Reports* 19, 210-212. J
- Matthews, D., Wilkinson, M.W. & Millam, S.** 1999. Factors influencing the ability of gametic microprotoplasts for partial genome transfer in potato. *Plant Cell Reports* 18, 786-790. J
- Maule, M.M. & Filipe, J.A.N.** 1999. Spatio-temporal dynamics of epidemic models with long-distance dispersal. *Workshop on Nonequilibrium Dynamic Systems*, Department of Physics, University of Porto. P
- Mayers, C.N., Palukaitis, P. & Carr, J.P.** 2000. Subcellular distribution analysis of the cucumber mosaic virus 2b protein. *Journal of General Virology* 81, 219-226. J
- Mayo, M.A.** 1999. Developments in plant virus taxonomy since the publication of the 6th ICTV Report. *Archives of Virology* 144, 1659-1666. J
- Mayo, M.A.** 2000. Genus *Varicosavirus*. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York San Diego, 521-523. R
- Mayo, M.A. & D'Arcy, C.J.** 1999. The current classification of luteoviruses. *Abstracts of the XIth Congress of Virology*, Sydney, Australia, 1999, 47. P
- Mayo, M.A., De Miranda, J.R., Falk, B.W., Goldbach, R., Haenni, A-L. & Toriyama, S.** 2000. Genus *Tenuivirus*. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Virus Taxonomy. Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York, San Diego, 622-627. R
- Mayo, M.A., Dreher, T.W. & Haenni, A-L.** 2000. Genus *Tymovirus*. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York, San Diego, 964-969. R

- Mayo, M.A., Fritsch, C., Leibowitz, M.J., Palukaitis, P., Scholthof, K-B.G., Simons, A.E. & Taliany, M.** 2000. Satellites. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Virus Taxonomy. Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York, San Diego, 1025-1032. R
- Mayo, M.A., Murrant, A.F., Reavy, B., Vetter, H.J. & Reddick, B.B.** 2000. Family *Sequiviridae*. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). *Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York, San Diego, 685-689. R
- Mayo, M.A., Taliany, 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.** 1999. A quasi-proteomic approach to identify gene products involved in xylem formation in trees. *Proceedings of the 9th Scottish Cell Wall Group Meeting*, Glasgow, p8. P
- McDougall, G.J.** 1999. Cell-wall-associated enzymes involved in xylem formation and development. *Abstracts from the SEB Edinburgh Meeting 1999 - The Biochemistry and Cell Biology of Vascular Development in Perennial Woody Plants - The Making of Wood*, Heriot-Watt University. *Journal of Experimental Botany* 50(S), p31. P
- McDougall, G.J.** 1999. Cell-wall-associated oxidase activity can interfere with the use of chromogenic substrates and endogenous peroxidase to localise H₂O₂ *in situ*. *Plant Peroxidase Newsletter* 13, 13-17. J
- McDougall, G.J.** 2000. Cell-wall-associated enzymes involved in xylem formation. In: Savidge, R., Barnett, J.R. & Napier, R. (eds). *Cambium - The Biology of Wood Formation*. BIOS Scientific Publishers, Oxford, 411-424. R
- McGeachy, K.D. & Barker, H.** 2000. Potato mop-top virus RNA can move long-distance in the absence of coat protein: evidence from resistant transgenic plants. *Molecular Plant-Microbe Interactions* 13, 125-128. J
- McGovern, H.J., Hallett, P., Ritz, K., Griffiths, B.S., O'Sullivan, M.F. & Young, I.M.** 1999. Structural generation and active fungi in direct drilled and ploughed soil. *Soil Ecology Society International Conference*, Chicago, USA, May 1999. P
- McGovern, H.J., Hallett, P., Ritz, K., Griffiths, B.S., O'Sullivan, M.F. & Young, I.M.** 1999. Structural generation, active fungi and wetting rates in direct drilled and ploughed soil. *BSSS Sustainable Management of Soil Organic Matter*, Edinburgh, U.K. P
- McGovern, H.J., Hallett, P.D., Ritz, K. & Young, I.M.** 1999. Structural generation and living fungi in direct drilled and ploughed soil. *Agriculture and Agri-Food Canada Soil Structure/Carbon Workshop*, Leamington, Canada. P
- McGovern, H.J., Hallett, P.D., Ritz, K., Griffiths, B.S., O'Sullivan, M.F. & Young, I.M.** 1999. Structural generation and active fungi in direct drilled and ploughed soil. *British Society of Soil Science, Young Scientists Meeting*, London. P
- McGuire, G., Prentice, M.J. & Wright, F.** 1999. Improved error bounds for genetic distances from DNA sequences. *Biometrics* 55, 1064-1070. J
- McNicol, J.W., Duff, E.I. & Elston, D.A.** 1999. MANTEL procedure. *Genstat Procedure Library* 11. O
- McRoberts, N., Finch, R.P., Sinclair, W., Meikle, A., Marshall, G., Squire, G.R. & McNicol, J.** 1999. Assessing the ecological significance of molecular diversity data in natural plant populations. *Journal of Experimental Botany* 50, 1635-1645. J
- Meyer, R.C., Thomas, W.T.B. & Swanston, J.S.** 1999. Mapping loci affecting spirit yield production in malt whisky production. *Poster presentation at MAFF Food Quality and Safety LINK Scheme launch*, 1999. P
- Milbourne, D., Meyer, R., Hackett, C., Bradshaw, J. & Waugh, R.** 1999. Linkage analysis in tetraploid potatoes: where there's a will there's a way. *Plant and Animal Genome VII Workshop*, San Diego, January 1999, 19. P
- Milbourne, D., Ramsay, L., Collins, A., Chatot-Balandras, C., Bonnel, E., Gebhardt, C. & Waugh, R.** 1999. Mapping QTLs for traits useful in potato improvement programme. *Plant and Animal Genome VII*, San Diego, January 1999, 170. P
- Millam, S.** 1999. An evaluation of the stability of *Solanum tuberosum* regenerants. *Proceedings of COST 822: WG5, Mechanisms and Markers of Regeneration and Genetic Stability*, Ancona, Italy, 20 September 1999, 55-56. P
- Millam, S.** 1999. Potato biotechnology - new tools for an old science. *Proceedings of COST 824 Special Meeting: Potential for Biotechnology in Norwegian Agriculture*, Hell, Norway, 26 November 1999. P
- Millam, S.** 1999. Progress towards microspore culture in diploid and tetraploid *Solanum* species. *Proceedings of COST 824: Gametic Embryogenesis in Dicotyledonous Plants*, Krakow, Poland, 15 October 1999, 14. P
- Millam, S. & Spoor, W.** 1999. Biotechnology and crop improvement. In: Simmonds, N.W. & Smartt, J. (eds.). *Principles of Crop Improvement*, Second Edition. Blackwell Science, London, 285-306. R
- Milne, F.C.M.** 1999. Purification of acrosin from cock spermatozoa of *Gallus domesticus*. *M.Phil. Thesis*, University of Abertay Dundee. O
- Milner, J.M., Elston, D.A. & Albon, S.D.** 1999. Estimating the contributions of population density and climatic fluctuations to interannual variation in survival of Soay sheep. *Journal of Animal Ecology* 68, 1235-1247. J
- Moeller, M., Masson, D., Mill, R.R., Williamson, B., Glidewell, S.M. & Bateman, R.** 1999. Nuclear magnetic resonance imaging: a novel tool for systematics? *Proceedings of 2nd Biennial Conference of the Systematics Association*, 23-27 August, Glasgow (<http://www.geology.gla.ac.uk/palaeo/syst99/abstract>). P
- Moeller, M., Masson, D., Mill, R.R., Williamson, B., Glidewell, S.M. & Bateman, R.** 1999. Nuclear magnetic resonance imaging: a novel tool for systematics? *Biodiversity and Evolutionary Systematics Conference of the German Botanical Society*, Friedrich-Schiller University, Jena, 5-11 September. P
- Moeller, M., Mill, R.R., Bateman, R.M., Glidewell, S.M., Williamson, B. & Masson, D.** 1999. Pollination drop mechanism and cone development of *Acropyle pancheri* (Podocarpaceae) - present state of knowledge. *Proceedings of International Conifer Conference*, Wye College, 26 August. P

- Monaghan, J.M., Scrimgeour, C., Stein, W.M., Zhao, F.J. & Evans, E.J.** 1999. Sulphur accumulation and redistribution in wheat (*Triticum aestivum*): a study using stable sulphur isotope ratios as a tracer system. *Plant Cell and Environment* 22, 831-839. J
- Morel, S., Harrison, R.E., Muir, D.D. & Hunter, E.A.** 1999. Genotype, location and harvest-date effects on the sensory character of fresh and frozen red raspberries. *The Journal of the American Society for Horticultural Science* 124, 19-23. J
- Morrison, I.M.** 1999. Glycolipid analysis. *Encyclopedia of Analytical Chemistry*. John Wiley & Sons Ltd, Chichester. R
- Morrison, I.M.** 1999. Polysaccharides: non-cellulosic. *Encyclopedia of Life Sciences*. Macmillan Reference Ltd, London. R
- Morrison, I.M.** 1999. Quality aspects of alternative crop fibres. *Proceedings of the COST 814 Workshop on Alternative Crops for Sustainable Agriculture*, Turku, Finland. P
- Morrison, I.M. & Stewart, D.** 1999. Alternative fibre crops grown under Scottish conditions. *Proceedings of the COST 814 Workshop on Alternative Crops for Sustainable Agriculture*, Turku, Finland. P
- Muckenschnabel, I., Deighton, N., Goodman, B.A. & Williamson, B.** 1999. Lipid peroxidation and the oxidative burst associated with infection of *Capsicum annuum* by *Botrytis cinerea*. XIV International Plant Protection Congress, Jerusalem, Israel. P
- Muir, D.D., Hunter, E.A., Williams, S.A.R. & Brennan, R.M.** 1998. Sensory profiles of commercial fruit juice drinks: influence of sweetener type. *Journal of the Science of Food and Agriculture* 77, 559-565. J
- Nabugoomu, F., Kempton, R.A. & Talbot, M.** 1999. Analysis of series of trials where varieties differ in sensitivity to locations. *Journal of Agricultural, Biological and Environmental Statistics* 4, 310-325. J
- Naidu, R.A., Kimmins, F.M., Holt, J., Robinson, D.J., Deom, C.M. & Subrahmanyam, P.** 1999. Spatiotemporal separation of groundnut rosette disease agents. *Phytopathology* 89, 934-941. J
- Naidu, R.A., Robinson, D.J. & Kimmins, F.M.** 1998. Detection of each of the causal agents of groundnut rosette disease in plants and vector aphids by RT-PCR. *Journal of Virological Methods* 76, 9-18. J
- Neilson, R.** 1999. Trophic inter-relationships between soil invertebrates and plants investigated using stable isotope natural abundances. *Ph.D. Thesis*, University of Dundee. O
- Neilson, R., Handley, L.L., Robinson, D., Scrimgeour, C. & Brown, D.J.F.** 1999. Natural abundances of ^{15}N and ^{13}C indicating physiological responses in *Petunia hybrida* to infection by longidorid nematodes and nepoviruses. *Nematology* 1, 315-320. J
- Newcombe, B.A., Ritz, K. & Gadd, G.M.** 1999. Solubilization of insoluble metal compounds by fungi under carbon-limiting conditions. *British Mycological Society Postgraduate Symposium*, Sheffield, U.K. P
- Newton, A.C. & Toth, I.K.** 1999. Helper bacteria and pathogenicity assessment. *New Phytologist* 144, 385-386. J
- Newton, A.C., Guy, D.C., Gaunt, R.E. & Thomas, W.T.B.** 2000. The effect of powdery mildew inoculum pressure and fertiliser level on disease tolerance in spring barley. *Z Pflanzenk Pflanzen* 107, 67-73. J
- Newton, A.C., Thomas, W.T.B., Swanston, J.S., Ellis, R.P., Guy, D.C. & Gacek, E.** 1999. 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, 1999, 9-16. P
- Nunan, N., Ritz, K., Young, I.M., Crawford, J.W. & Wu, K.** 1999. Large-scale convolution and mapping of bacteria in soil thin sections. *Contemporary Methods in Image Analysis*, Thame, U.K. P
- Nurkiyanova, K.M., Ryabov, E.V., Gray, S.M., Canto, T., Mayo, M.A. & Taliansky, M.E.** 1999. Tagging Potato leafroll virus with the green fluorescent protein gene. *Abstracts of the XI International Congress of Virology*, Sydney, Australia, 1999, 223. P
- Nurkiyanova, K.N., Ryabov, E., Duncan, G.H., Canto, T., Gray, S.M., Commandeur, U., Mayo, M.A. & Taliansky, M.E.** 2000. Tagging Potato leafroll virus with the jellyfish green fluorescent protein gene. *Journal of General Virology* 81, 617-626. J
- Nyvall, P., Pelloux, J., Davies, H.V., Pedersen, M. & Viola, R.** 1999. Purification and characterisation of a novel starch synthase selective for uridine 5'-diphosphate glucose from the red alga *Gracilaria tenuistipitata*. *Planta* 209, 143-152. J
- O'Mahony, R.J., Hooley, P., Fincham, D.A.F., Millam, S. & Burns, A.T.H.** 1999. A novel approach towards the genetic engineering of salt tolerant crops. SEB Annual Meeting. *Journal of Experimental Biology* 50, 4-19. P
- Ogbe, F.O., Atiri, G.I., Robinson, D., Winter, S., Dixon, A.G.O., Quin, F.M. & Thottappilly, G.** 1999. First report of East African cassava mosaic begomovirus in Nigeria. *Plant Disease* 83, 398. J
- Oparka, K.J., Roberts, A.G., Boevink, P., Santa Cruz, S., Roberts, I.M., Pradel, K.S., Imlau, A., Kotizky, G., Sauer, N. & Epel, B.** 1999. Simple, but not branched, plasmodesmata allow the non-specific trafficking of proteins in developing tobacco leaves. *Cell* 97, 743-754. J
- Otten, W., Gilligan, C., Hall, D., Harris, K., Ritz, K. & Young, I.M.** 1999. Spread of fungi through soil: can soil physical conditions affect epidemics? *Biotic Interactions, Annual Meeting of British Society for Plant Pathology*, Oxford, U.K. P
- Palukaitis, P. & Canto, T.** 1999. Is cell-to-cell movement of cucumber mosaic virus inhibited by a transgenic defective replicase? *Abstracts of the XIth International Congress of Virology*, Sydney, Australia, 1999, 246. P
- Palukaitis, P. & Canto, T.** 1999. Replicase-mediated resistance to cucumber mosaic virus does not inhibit movement protein localization or cell-to-cell trafficking in epidermal cells. *Abstracts of the 18th Annual Meeting of the American Society for Virology*, University of Massachusetts, Amherst, Massachusetts, 1999, 108. P
- Partridge, L.W., Trenkel, V.M., Gordon, I.J., Buckland, S.T., Elston, D.A., Milne, J.A., Birch, C.P.D., Forster, J., Mann, A.D. & McLeod, J.E.** 1999. HillDeer: The Red Deer Decision Support System User's Guide. T
- Patron, N.J., Weekes, R.J., Mayo, M.A., Barker, H., Liney, M.S. & Smith, H.G.** 1999. Mutation and recombination in beet-infecting luteoviruses and their effects on host range. *Abstracts of Association of Applied Biologists Virology Meeting*, CSL, York, 1999. P

- Pearce, S.R., Stuart-Rogers, C., Knox, M., Ellis, T.J.M., Kumar, A. & Flavell, A.J.** 2000. Rapid isolation of plant Ty1-copia group retrotransposon LTR sequences for molecular marker studies. *The Plant Journal* 19, 711-717. J
- Peneva, V., Loof, P.A.A. & Brown, D.J.F.** 1999. *Longidorus dalmassoi* sp.n. (Nematoda: Dorylaimoidea) from France. *Nematology* 1, 557-560. J
- Peneva, V., Neilson, R. & Nedelchev, S.** 1999. Monochid nematodes from oak forests in Bulgaria. 1. The subfamily Anatonchinae Jairajpuri 1969 with descriptions of *Anatonchus genovi* sp. n. and *Tigronchoides quercus* sp. n. *Nematology* 1, 37-54. J
- Peneva, V., Neilson, R., Boag, B. & Brown, D.J.F.** 2000. Criconematidae (Nemata) from two nature reserves in Russia. *Systematic Parasitology* 46, 191-201. J
- Perera, L.** 1999. Assessing genetic diversity in coconut (*Cocos nucifera* L.) using molecular markers. *Ph.D. Thesis*, University of Dundee. O
- Perera, L., Russell, J.R., Provan, J. & Powell, W.** 1999. Identification and characterisation of microsatellite loci in coconut (*Cocis nucifera* L.) and the analysis of coconut population in Sri Lanka. *Molecular Ecology* 8, 344-346. J
- Phillips, M.S. & Trudgill, D.L.** 1998. Potato cyst nematodes, biology, distribution and control. In: Marks, R.J. & Brodie, B.B. (eds.). *Population modelling and integrated control options for potato cyst nematodes*. CAB International, 153-163. R
- Piggott, J.R. & Hunter, E.A.** 1999. Review: evaluation of assessor performance in sensory analysis. *Italian Journal of Food Science* 11, 289-303. R
- Piggott, J.R., Hunter, E.A. & Margomenou, L.** 1999. Comparison of methods of analysis of time-intensity data: application of Scotch malt whisky. *Cost 96 Symposium*, Udine, Italy, September 1999. P
- Postma, R., Goffart, J.P., Johnson, P.A., Salomez, J., Shepherd, M.A. & Wheatley, R.E.** 2000. Losses of mineral nitrogen from the plant-soil system in potato production. In: Haverkort A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 136-154. R
- Preston, S., Griffiths, B.S. & Young, I.M.** 1999. Link between substrate additions, native microbes, and the structural complexity and stability of soils. *Soil Biology and Biochemistry* 31, 1541-1547. J
- Prior, A.E., Kennedy, M.W., Blok, V.C., McDermott, L., Cooper, A. & Jones, J.T.** 1999. Functional analysis of a nematode lipid binding protein using site-directed mutagenesis. *Abstracts of the AAB offered Papers in Nematology Meeting, Linnean Society*, London, 1999. P
- Provan, J., Dewar, H., Bryan, G., Powell, W., Machray, G.C. & Waugh, R.** 1999. An extreme cytoplasmic bottleneck in the modern European cultivated potato (*Solanum tuberosum*) is not reflected in decreased levels of nuclear diversity. *Philosophical Transactions of the Royal Society, Series B* 266, 633-639. J
- Provan, J., Lawrence, P., Young, G., Wright, F., Bid, R., Paglia, G., Cattonaro, F., Morgante, M. & Powell, W.** 1999. Analysis of the genus *Zea* (*Poaceae*) using polymorphic chloroplast simple sequence repeats. *Plant Systematics and Evolution* 218, 245-256. J
- Provan, J., Russell, J.R., Booth, A. & Powell, W.** 1999. Polymorphic chloroplast simple sequence repeat primers for systematic and population studies in the genus *Hordeum*. *Molecular Ecology* 8, 505-512. J
- Provan, J., Soranzo, N., Wilson, N.J., Goldstein, D.J. & Powell, W.** 1999. A low mutation rate for chloroplast microsatellites. *Genetics* 153, 943-947. J
- Provan, J., Soranzo, N., Wilson, N.J., McNicol, J.W., Morgante, M. & Powell, W.** 1999. The use of uniparentally inherited simple sequence repeat markers in plant population studies and systematics. In: Hollingsworth, P.M. et al. (eds.). *Molecular Systematics and Plant Evolution*. Taylor & Francis, London, 36-50. R
- Provan, J., Thomas, W.T.B., Forster, B.P. & Powell, W.** 1999. Copia-SSR: a simple marker technique which can be used on total genomic DNA. *Genome* 42, 363-366. J
- Rafart Pedros, A.R., MacLeod, M.R., Ross, H.A., McRae, D., Tiburcio, A.F., Davies, H.V. & Taylor, M.A.** 1999. Manipulation of the S-adenosylmethionine decarboxylase transcript level in potato tubers. An increase in activity leads to an increase in tuber number and a change in tuber size distribution. *Planta* 209, 153-160. J
- Ramsay, G. & Miller, J.** 1999. Biotechnological approaches to improved productivity and quality. *Grain Legumes* 24, 20-21. O
- Ramsay, G., Stewart, H.E. & Bradshaw, J.E.** 1999. Geographical variation in resistance to *Phytophthora infestans* in *Solanum* genebank accessions. In: *Abstracts, Global Conference on Potato*, New Delhi, India, December 6-11, 1999, 46. P
- Ramsay, G., Stewart, H.E., De Jong, W.S., Bradshaw, J.E. & Mackay, G.R.** 1999. Introgression of late blight resistance into *S. tuberosum*. In: Scarascia Mugnozza, G.T., Porceddu, E. & Pagnotta M.A. (eds.). *Genetics and Breeding for Crop Quality and Resistance. Proceedings of the XV EUCARPIA Congress*, Viterbo, Italy, 20-25 September 1998, 25-32. P
- Ramsay, G., Thompson, C.E., Neilson, S.J., & Mackay, G.** 1999. Honeybees as vectors of GM oilseed rape pollen. 1999 BCPC Symposium Proceedings No 72. *Gene Flow and Agriculture: Relevance for Transgenic Crops*, 209-214. P
- Ramsay, L., Macaulay, M., Cardle, L., Morgante, M., Degli Ivanisovich, S., Maestri, E., Powell, W. & Waugh, R.** 1999. Intimate association of microsatellite repeats with retrotransposons and other dispersed repetitive elements in barley. *The Plant Journal* 17, 415-425. J
- Reavy, B., Ziegler, A., Diplecito, J., Macintosh, S.M., Torrance, L. & Mayo, M.** 2000. Expression of functional recombinant antibody molecules in insect cell expression systems. *Protein Expression and Purification* 18, 221-228. J
- Reddy, D.V.R., Sharma, K.K., Nageswara Rao R.C., Reddy, S.V., Thirumal Devi, K., Upadhyay, H.D., Nigam, S.N., Mallikarjuna, N., Mayo, M.A., Reddy, K.L.N. & Bramel Cox, P.J.** 1999. Current research on aflatoxin detection and genetic transformation in peanut at ICRISAT. In: Dietzgen, R.G. (ed.). *Elimination of Aflatoxin Contamination in Peanut*. ACIAR, Canberra, 1999, 32-33. R
- Richardson, A., Duncan, J.A. & McDougall, G.J.** 2000. Oxidase activity is expressed in the lignifying xylem of a taxonomically-diverse range of trees: identification of a conifer laccase. *Tree Physiology* 20, 1039-1047. J
- Ride, J.P., Davies, E.M., Franklin, F.C.H. & Marshall, D.F.** 1999. Analysis of *Arabidopsis* genome sequence reveals

a large new gene family in plants. *Plant Molecular Biology* 39, 927-932. P

Ritz, K. 1999. How consistent are rhizosphere communities? *BBSRC:SOAEFD Workshop on Manipulation of the Root Environment*, Manchester, U.K. P

Ritz, K. 1999. Implications of soil biodiversity for sustainable organic matter management. *BSSS Sustainable Management of Soil Organic Matter*, Edinburgh, U.K. P

Ritz, K. 1999. Upstairs, downstairs: molecular approaches to elucidating the relationships between plant and microbial communities. *New Directions in Microbial Ecology: Contemporary Methods in the Study of Soil Populations*, Copenhagen. P

Ritz, K. & Crawford, J.W. 1999. Colony development in nutritionally heterogeneous environments. In: Gow, N.A., Robson, G. & Gadd, G. (eds.). *The Fungal Colony*. Cambridge University Press, Cambridge, U.K., 49-74. R

Ritz, K. & Trudgill, D.L. 1999. Utility of nematode community analysis as an integrated measure of the functional state of soils: perspectives and challenges. *Plant and Soil* 212, 1-11. J

Robertson, L., Robertson, W.M., Ferguson, M.A.J., Stokkermans, J. & Jones, J.T. 1999. Characterisation of the secretions of the potato cyst nematode *Globodera rostochiensis*. *Abstracts of the BSP Spring Meeting*, Warwick, 1999, 87. P

Robinson, D., Handley, L.L., Scrimgeour, C., Ellis, R.P., Forster, B.P., Gordon, D. & Keith, R. 2000. Using stable isotopes abundances to integrate the stress responses of wild barley populations. *Journal of Experimental Botany* 51, 41-50. J

Robinson, D., Hodge, A., Griffiths, B.S. & Fitter, A.H. 1999. Plant root proliferation in nitrogen-rich patches confers competitive advantage. *Proceedings of the Royal Society Series B* 266, 431-435. J

Robinson, D.J. 1999. Plant viruses with rod-shaped virions. *Embryonic Encyclopedia of Life Sciences*. R

Robinson, D.J., Naidu, R.A. & Kimmins, F.M. 1999. Aspects of the epidemiology and control of groundnut rosette disease. *Proceedings of the 15th Meeting of the International Working Group on Legume Viruses*, Freemantle, Australia, 1999, 11. P

Robinson, D.J., Taliansky, M.E. & Ryabov, E.V. 1999. Expression of luteovirus coat protein in transgenic plants is revealed by infection with an umbravirus. *Abstracts of the XI International Congress of Virology*, Sydney, Australia, 1999, 49. P

Rodger, S., Griffiths, B., Wheatley, R.E., Crawford, J.W., McNicol, J. & Young, I.M. 1999. The impact of substrate and structural heterogeneity on the movement of the nematode *Caenorhabditis elegans*. *Proceedings of the Canadian Soil Structure and Biota Conference*, Leamington, Canada. P

Roy, N., Zuur, G. & Lobley, G.E. 1999. Amino acid metabolism across the hind-quarters of undernourished sheep supplemented with glutamine. *Abstracts of 8th International Symposium on Protein Metabolism and Nutrition*, Aberdeen, 1-4 September 1999. P

Russell, J.R., Perera, L. & Powell, W. 1999. Assessing genetic diversity in coconut germplasm using molecular markers. *Workshop and Laboratory Course on Coconut Biotechnology*, CICY, Merida, Mexico. P

Russell, J.R., Weber, J.C., Booth, A., Powell, W., Sotelo-Montes, C. & Dawson, I.K. 1999. Genetic variation of *Calyculophyllum spruceanum* in the Peruvian Amazon Basin, revealed by amplified length polymorphism (AFLP) analysis. *Molecular Ecology* 8, 199-204. J

Ryabov, E.V., Roberts, I.M., Palukaitis, P. & Taliansky, M. 1999. Host-specific, cell-to-cell and long-distance movements of cucumber mosaic virus are facilitated by the movement protein of groundnut rosette virus. *Virology* 260, 98-108. J

Saklofske, D.H., Zeidner, M., Deary, I.J., Austin, E.J., Matthews, G. & Sternberg, R. 1999. The intelligence-personality interface: Prospects for integration. *Personality Psychology in Europe* 7, 235-262. Tilburg University Press. P

Schmidt, O., Scrimgeour, C. & Curry, J.P. 1999. Carbon and nitrogen stable isotope ratios in body tissue and mucus of feeding and fasting earthworms (*Lumbricus festus*). *Oecologia* 118, 9-15. J

Schröder, H.C., Müller, W.E.G. & Forrest, J.M.S. 2000. Lectins as diagnostic tools and endogenous targets in AIDS and prion diseases. In: Caron, M. & Séve, A.P. (eds.). *Lectins and Pathology*. Harwood Academic Publishers, The Netherlands, 123-134. R

Scrimgeour, C., Begley, I.S. & Thomason, M.L. 1999. Measurement of deuterium incorporation into fatty acids by gas chromatography/isotope ratio mass spectrometry. *Rapid Communications in Mass Spectrometry* 13, 271-274. J

Sebastian, R.L., Howell, E.C., King, G.C., Marshall, D.F. & Kearsey, M.J. 2000. An integrated AFLP and RFLP *Brassica oleracea* linkage map from two morphologically distinct doubled-haploid mapping populations. *Theoretical and Applied Genetics* 100, 75-81. J

Senthil, G., Williamson, B. & Ramsay, G. 1999. Reproducible and efficient transformation of chickpea (*Cicer arietinum*) and inheritance of transgenes. *Proceedings of Congress on In Vitro Biology*, New Orleans, Louisiana, USA, 5-9 June. P

Shepherd, L.V.T. 1999. Expression of maize starch branching enzyme I in tubers of potato (*Solanum tuberosum* L.) and its impact on starch structure. *Ph.D. Thesis*, University of Dundee. O

Shepherd, T., Robertson, G.W., Griffiths, D.W. & Birch, A.N.E. 2000. Epicuticular wax composition in relation to aphid infestation and resistance in red raspberry. *Phytochemistry* 52, 1239-1254. J

Shepherd, T., Robertson, G.W., Griffiths, D.W. & Birch, A.N.E. 2000. Epicuticular wax ester and triacylglycerol composition in relation to aphid infestation and resistance in red raspberry. *Phytochemistry* 52, 1255-1267. J

Simpson, C.G., Clark, G.P., Lyon, J.M., Watters, J., McQuade, C. & Brown, J.W.S. 1999. Interactions between introns via exon definition in plant pre-mRNA splicing. *The Plant Journal* 18, 293-302. J

Simpson, C.G., Hedley, P.E., McQuade, C.M., Watters, J., Clark, G.P., Machray, G.C. & Brown, J.W.S. 1999. *Abstracts of the 4th Annual Meeting of the RNA Society*, Edinburgh, Scotland, 539. P

Smart, T.S., Hirst, D.J. & Elston, D.A. 1999. Methods for estimating loads transported by rivers. *Hydrology and Earth System Sciences* 3, 295-303. J

Smith, H.G., Patron, N.J., Mayo, M.A., Barker, H. & Liney, M.S. 1999. Environmental impact of disease

- resistance in genetically modified plants. *Proceedings of ADAS Conference, Agriculture and the Environment*, Warwick, UK, 1999, 163-169. P
- Solomon-Blackburn, R.M.** 1999. Advances in breeding potatoes for resistance to virus diseases. *Proceedings Crop Protection in Northern Britain*, 1999, Dundee, 223-228. P
- Soranzo, N.** 1999. Genetic variation in native European populations of *Pinus sylvestris* (L.). *Ph.D. Thesis*, University of Dundee. O
- Sparks, T.H., Elston, D.A. & Potts, J.M.** 1999. Researching the optimality of hedgerow statistics for England and Wales from the countryside survey. *MAFF Project Code BD1009*. O
- Squire, G.R., Charters, Y.M., Robertson, A. & Mackay, G.R.** 1999. Distribution, persistence and gene flow of oilseed rape in the Tayside study area. *Proceedings Crop Protection in Northern Britain* 1999, 109-114. P
- Squire, G., Crawford, J.W., Ramsay, G., Thompson, C.E. & Bown, J.** 1999. Gene flow at the landscape level. 1999 BCPC Symposium Proceedings No 72. *Gene Flow and Agriculture: Relevance for Transgenic Crops*, 57-64. P
- Squire, G.R.** 2000. Plant and canopy diversity. In: Marshall, B. & Roberts, J.A. (eds.). *Leaf Development and Canopy Growth*, Sheffield Academic Press, 280-309. R
- Squire, G.R., Crawford, J., Thompson, C., Ramsay, G. & Bown, J.** 1999. Gene flow at the landscape level. In: Lutman, P.J.W. (ed.). *Gene flow and Agriculture: relevance for transgenic crops*. *British Crop Protection Council 1999 Symposium Proceedings No 72*, Farnham, UK, 57-64. P
- Squire, G.R., Rodger, S. & Wright, G.M.** 2000. Community-scale seedbank response to less intense rotation and reduced herbicide input at three sites. *Annals of Applied Biology* 136, 47-57. J
- Stanic, D., Barker, H., Strukelj, B. & Zel, J.** 1999. Evaluation of transgenic potato (*Solanum tuberosum* L.) cv. Igor plants conferring resistance to potato virus Y^{NTN}. *Abstracts of the 3rd Meeting of the Slovenian Biochemical Society*, Portoroz, Slovenia, 1999, 25-29. P
- Stanley, K. & Fenton, B.** 2000. A member of the hsp60 gene family from the peach potato aphid *Myzus persicae* (Sulzer). *Insect Molecular Biology* 9, 211-215. J
- Stewart, H.E. & Ramsay, G.** 1999. New sources of resistance to late blight in accessions of the Commonwealth Potato Collection. *Proceedings of the Global Initiative on Late Blight Conference*, Quito, 16-19 March 1999, vol. 1, 133. P
- Stubbs, R.J., O'Reilly, L.M., Johnstone, A.M., Harrison, C.L.S., Clark, H., Franklin, M.F. & Reid, C.A.** 1999. Description and evaluation of an experimental model to examine changes in selection between high-protein, high-carbohydrate and high-fat foods in humans. *European Journal of Clinical Nutrition* 53, 13-21. J
- Swanston, J.S., Gacek, E., Guy, D.C. & Newton, A.C.** 2000. Malting performance of barley cultivar mixtures from the UK and Poland. *Journal of the Institute of Brewing* 106, 239-243. J
- Swanston, J.S., Newton, A.C., Guy, D.C. & Gacek, E.S.** 1999. Malting quality interactions of barley cultivar mixtures from the UK and Poland. *COST 817 Annual Report for 1999*. P
- Taliansky, M.E. & Barker, H.** 1999. Movement of luteoviruses in infected plants. In: Smith, H.G. & Barker, H. (eds.). *The Luteoviridae*. CAB International, 69-83. R
- Taliansky, M.E., Robinson, D.J. & Murant, A.F.** 2000. The groundnut rosette virus complex: biology and molecular biology. *Advances in Virus Research* 55, 357-400. R
- Taliansky, M.E., Ryabov, E.V., Robinson, D.J. & Wilson, T.M.A.** 1999. Polynucleotide transporter protein. *PST Patent Application 1999* (updated from British Patent Application, 1998). T
- Tamime, A.Y. & McNulty, D.** 1999. Kishk - a dried fermented milk/cereal mixture. 4. Microbiological quality. *Lait* 79, 449-456. J
- Tamime, A.Y., Barclay, M.N.I., Amarowicz, R. & McNulty, D.** 1999. Kishk - a dried fermented milk/cereal mixture. 1. Composition of gross components, carbohydrates, organic acids and fatty acids. *Lait* 79, 317-330. J
- Tamime, A.Y., Barclay, M.N.I., Law, A.J.R., McNulty, D., Leaver, J., Anifantakis, E.M. & O'Connor, T.P.** 1999. Kishk - a dried fermented milk/cereal mixture. 2. Assessment of a variety of protein analytical techniques for determining adulteration and proteolysis. *Lait* 79, 331-339. J
- Tamime, A.Y., Barclay, M.N.I., McNulty, D. & O'Connor, T.P.** 1999. Kishk - a dried fermented milk/cereal mixture. 3. Nutritional composition. *Lait* 79, 435-448. 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
- Thomas, W.T.B. 1999. QTL mapping of net blotch resistance in a spring barley cross. 'Disease Resistance and Cereal Leaf Pathogens Beyond the Year 2000'. *Cost 817 Meeting*, Martina Franca, Italy. O
- Thompson, C., Squire, G.R., Mackay, G., Bradshaw, J., Crawford, J. & Ramsay, G.** 1999. Regional patterns of gene flow and its consequences for GM oilseed rape. In: Lutman, P.J.W. (ed.). *Gene flow and Agriculture: relevance for transgenic crops*. *British Crop Protection Council 1999 Symposium Proceedings No 72*, Farnham, UK, 95-100. P
- Thornton, B., Lemaire, G., Millard, P. & Duff, E.I.** 1999. Relationships between nitrogen and water concentration in shoot tissue of *Molinia caerulea* during shoot development. *Annals of Botany* 83, 631-636. J
- Tipping, R., Long, D., Carter, S., Davidson, D., Tyler, A. & Boag, B.** 1999. Testing the potential of soil-stratigraphic palynology in podols. *Geoarchaeology* 165, 79-90. J
- Tolkamp, B.J., Allcroft, D.J. & Kyriazakis, I.** 1999. Estimating meal criteria for meal pattern analysis of dairy cows. *Proceedings of the British Society of Animal Science*. P
- Torrance, L.** 1999. Antibodies as diagnostic tools in plant pathology: summary and outlook. In: Harper, K. & Ziegler, A. (eds.). *Recombinant Antibodies: Applications in Plant Science and Plant Pathology*. Taylor Francis, London, 107-109. R
- Torrance, L.** 1999. Antibody fusion proteins produced in bacteria are effective in immunoassays to detect plant viruses. *Abstracts of the 15th Meeting of the International Working Group on Legume Viruses*, Freemantle, Australia, 1999. P
- Torrance, L.** 2000. Genus *Furovirus*. In: Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch,

D., Pringle, C.R. & Wickner, R.B. (eds.). *Seventh Report of the International Committee on Virus Taxonomy*. Academic Press, 904-908. R

Torrance, L. 1999. Recombinant antibodies for virus disease diagnosis and resistance. *Abstracts of the 7th Aschersleben Symposium 'New Aspects of Resistance Research on Cultivated Plants'*, Aschersleben, Germany, 1999. P

Torrance, L., Cowan, G.C., Arli, M. & Reavy, B. 1999. A naturally occurring deleted form of *Potato mop-top virus* RNA 2. *Journal of General Virology* 80, 2211-2215. J

Torrance, L., Cowan, G.H., Andrejeva, J., Sasaya, T., Nurkiyanova, K. & Ziegler, A. 1999. Studies on antibody mediated resistance to potyviruses. *Abstracts of the XIth International Congress of Virology*, Sydney, Australia, 1999, W57. P

Toth, I.K., Bertheau, Y., Hyman, L.J., Laplaze, L., López, M.M., McNicol, J., Niepold, F., Persson, P., Sletten, A., van der Wolf, J.M. & Pérombelon, M.C.M. 1999. Evaluation of phenotypic and molecular typing techniques for determining diversity in *Erwinia carotovora* subspecies *atroseptica*. *Journal of Applied Microbiology* 87, 770-781. J

Toth, I.K., Hyman, L.J. & Wood, J.R. 1999. A one step PCR-based method for the detection of economically important soft rot *Erwinia* species on micropropagated potato plants. *Journal of Applied Microbiology* 87, 158-166. J

Toth, I.K., Thorpe, C.J., Bentley, S.D., Mulholland, V., Hyman, L.J., Pérombelon, M.C.M. & Salmond, G.P.C. 1999. 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

Toth, R., Harper, K., Mayo, M.A. & Torrance, L. 1999. Fusion proteins of single-chain variable fragments derived from phage display libraries are effective reagents for the routine diagnosis of *Potato leafroll virus* infection in potato. *Phytopathology* 89, 1015-1021. J

Trudgill, D., Phillips, M.S., McNicol, J.W., Elliot, M. & Blok, V.C. 1999. Modelling nematode population growth and damage. *Abstracts of the XIVth International Plant Protection Congress*, Jerusalem, 1999, 145. P

Trudgill, D.L., Armstrong, M.R., Blok, V.C. & Phillips, M.S. 1999. Molecular and biological variation in introduced and indigenous white potato cyst nematode (*Globodera pallida*). *Abstracts of the British Ecological Society*, University of Leeds, UK, 1999, 56. P

Trudgill, D.L., Evans, K. & Phillips, M.S. 1998. Potato cyst nematodes: damage mechanisms and tolerance in the potato. CAB International, 117-133. R

Trudgill, D.L., Squire, G.R. & Thompson, K. 2000. A thermal time basis for comparing the germination requirements of some British herbaceous plants. *New Phytologist* 145, 107-114. J

Tzortzakakis, E.A., Blok, V.C., Phillips, M.S. & Trudgill, D.L. 1999. Variation in root-knot nematode *Meloidogyne* spp. in Crete in relation to control with resistant tomato and pepper. *Nematology* 1, 499-506. J

Tzortzakakis, E.A., Trudgill, D.L. & Phillips, M.S. 1998. Evidence for a dosage effect of the *Mi* gene on partially virulent isolates of *Meloidogyne javanica*. *Journal of Nematology* 30, 76-80. J

Van Regenmortel, M.H.V., Fauquet, C.M., Bishop, D.H.L., Carstens, E., Estes, M., Lemon, S., Maniloff, J., Mayo, M.A., McGeoch, D., Pringle, C.R. & Wickner, R.B. (eds.). 2000. *Virus Taxonomy. Seventh Report of the International Committee on Taxonomy of Viruses*, Academic Press, New York, San Diego, 1162pp. R

Vassilakos, N., Brown, D.J.F. & MacFarlane, S.A. 1999. Studies of vector transmissibility of tobamoviruses using transgenic plants expressing the RNA2 non-structural transmission proteins. *Proceedings of the 11th International Congress of Virology*, Sydney, Australia, 1999, 249. P

Vassilakos, N., MacFarlane, S.A. & Brown, D.J.F. 1999. Vector transmissibility of a tobamovirus mutant lacking a non-structural vector transmission protein can be reinstated through complementation with a homologous vector transmissible isolate. *Proceedings of the Zoological Institute, Russian Academy of Sciences*, St. Petersburg, 1999, 280, 112-114. P

Vassilakos, N., MacFarlane, S.A., Brown, D.J.F. 1999. A transmissible tobamovirus can complement a homologous virus mutant lacking a non-structural vector transmission protein to provide vector transmissibility. *Helminthologia* 36 (Supplement), 63. P

Vellios, E.K., MacFarlane, S.A. & Brown, D.J.F. 1999. Electron microscopy study of the distribution and particle morphology of *Pea early-browning tobamovirus* in plant roots. *Association of Applied Biologists Meetings*, York, April, 1999. P

Vellios, E.K., MacFarlane, S.A. & Brown, D.J.F. 1999. Localisation of *Pea early-browning virus* particles in plant roots determines their availability to virus-vector trichodroid nematodes. *Proceedings of the Zoological Institute, Russian Academy of Sciences*, St Petersburg, 1999, 280, 114-115. P

Viola, R. 1999. Sink-to-source transition in potato tubers. *Final Report for EU Project BIO4-CT96-0529*. T

Viola, R. 1999. Fluxes of carbohydrate metabolism in developing potato tubers. Evidence that fructokinase catalyses a near-limiting reaction *in vivo*. *Proceedings of the 14th Triennial Conference of the EAPR*, 26-27. P

Viola, R. 1999. Starch synthesis and tuber filling in potato. In: Gupta, A.K. (ed.). *Synthesis and Regulation of a Range of Carbohydrate Reserves in Plants of Commercial Value*. Elsevier. R

Viola, R. 1999. The use of ^{13}C -NMR for analyses of carbohydrate metabolism in tubers of potato. *Proceedings of the 14th Triennial Conference of the EAPR*, 64-65. P

Viola, R. & Pelloux, J. 1999. Biochemical investigation of dormancy break and sprout growth in tubers of *Solanum tuberosum* cv. Desiree. *Proceedings of the 14th Triennial Conference of the EAPR*, 66-67. P

Viola, R., Gleixner, G., Schmidt, H.L. & Scrimgeour, C. 1999. Stable isotope distribution in the major metabolites of source and sink organs of potato. A powerful tool in the study of metabolic partitioning in intact plants. *Proceedings of the 14th Triennial Conference of the EAPR*, 492-493. P

Viola, R., Vreugdenhil, D., Davies, H.V. & Sommerville, L. 1999. Synthesis of L-ascorbic acid in potato tubers. *Proceedings of the 14th Triennial Conference of the EAPR*, 490-491. P

Vipond, J.E., Duncan, A., Turner, D., Goddyn, L. & Horgan, G.W. 1999. Effects of feeding ensiled kale (*Brassica oleracea*) on the performance of finishing lambs. *Grass and Forage Science* 53, 346-352. J

- Virk, P., Zhu, J., Newbury, H.J., Bryan, G.J., Jackson, M.T. & Ford-Lloyd, B.V.** 2000. Effectiveness of different classes of molecular marker for classifying and revealing variation in rice (*Oryza sativa*) germplasm. *Euphytica* 112, 275-284. J
- Visser, P., Brown, D.J.F., Brederode, F.Th. & Bol, J.F.** 1999. Nematode transmission of Tobacco rattle virus serves as a bottleneck to clear the virus population of defective interfering RNA's. *Virology* 263, 155-165. J
- Vos, J. & MacKerron, D.K.L.** 2000. Basic concepts of the management of supply of nitrogen and water in potato production. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 15-33. R
- Vrain, T.C., Robbins, R.T., Halbrendt, J.M. & Brown, D.J.F.** 1999. Application of PCR-RFLP profiles for distinguishing population clusters of *Xiphinema americanum* group nematodes. *Helminthologia* 36, 63. P
- Vrain, T.C., Robbins, R.T., Halbrendt, J.M. & Brown, D.J.F.** 1999. PCR-RFLP profiles for distinguishing population clusters of *Xiphinema americanum* group nematodes. *Proceedings of the Zoological Institute, Russian Academy of Sciences*, St Petersburg, 1999, 280, 116-117. P
- Wale, S.J., Murray, F., Paveley, N.D., Jones, D.R., Hums, M.J., Stevens, D.B., Jones, O & Reid, C.A.** 1999. The use of fungicide dose-response curves in optimising winter barley disease control. *Proceedings Crop Protection in Northern Britain*, 1999, 55-59. P
- Wardrop, J., Snape, J., Powell, W. & Machray, G.C.** 1999. Generation of an experimental system for the creation of whole genome radiation hybrids in plants. *Abstract of the BBSRC GAIT Workshop*, Hinxton, Cambridge. P
- Watts, C.W., Hallett, P.D. & Dexter, A.R.** 1999. The effects of mechanical stresses and strains on soil respiration. In: Berthelin, J., Huang, P.M., Bollag, J.M. & Andreux, F. (eds.). *Effect of Mineral-Organic-Microorganism Interactions on Soil and Freshwater Environments*. Kluwer Academic/Plenum Publishing, 305-316. R
- Waugh, R., Ramsay, L., Graner, A., Bauer, E., Morgante, M., Degli Ivanisovich, S., Isaac, P., Jahoor, A., Herz, M., Turesson, S., Dourlein, J., Chasalow, S., Marmiroli, N., Massari, A., Rath, F., Schacht, J., Jaiser, H., Schiemann, A., Habgood, R., Hemker, R., Ferrer, E., Giese, H., Stephenson, P. & Schilbach, R.** 1999. Improving the quality of European barley: application and development of appropriate enabling technologies. *Final Confidential Report, FAIR CT95-0003*. T
- Waugh, R., Ramsay, L., Macaulay, M., Mclean, K., Thomas, W.T.B., Ellis, R.P., Swanston, J.S., Russell, J., Cardle, L., Harrower, B., Hedley, P., Powell, W. & Machray, G.** 1999. Identification and improvement of components of barley malting quality. *Proceedings of the 9th Australian Barley Technical Symposium*, Melbourne, September 1999, 98-112. P
- Wheatley, R.E., Haase, N.U., Cormack, W., Colauzzi, M. & Guarda, G.** 2000. Organic potato farming and nitrogen fertilisation, some food for thought. In: Haverkort, A.J. & MacKerron, D.K.L. (eds.). *Management of Nitrogen and Water in Potato Production*, Wageningen Pers, Wageningen, The Netherlands, 288-299. R
- Whisson, S., Birch, P., van der Lee, T., Govers, F., Bryan, G. & Waugh, R.** 1999. Construction of a bacterial artificial chromosome library of the late blight pathogen *Phytophthora infestans*. *Molecular Plant-Microbe Interactions 9th International Congress*, Amsterdam, 1999, 214. P
- Whisson, S., van der Lee, T., Govers, F., Bryan, G., Waugh, R. & Birch, P.** 1999. Construction of a bacterial artificial chromosome library of the late blight pathogen, *Phytophthora infestans*. *Proceedings of the 9th International Congress of Molecular Plant-Microbe Interactions*, Amsterdam, 25-30 July. P
- Williams, C.M.J., Vitosh, M.L., Maier, N.A. & MacKerron, D.K.L.** 1999. Nutrient management strategies for sustainable potato (*Solanum tuberosum*) production systems in the southern and northern hemispheres. In: Nee, M., Symon, D.E., Lester, R.N., & Jessop, J.P. (eds.). *Solanaceae IV. Advances in Biology and Utilization. (Proceedings of the Fourth International Solanaceae Conference, Adelaide, Australia, 4-9 September 1994)*. Royal Botanic Gardens, Kew, 443-458. R
- Williams, S.A.R., Mann, A.D., Hunter, E.A., Parker, T.G., Shankland, C.E., Limond, A. & Muir, D.D.** 1999. Design, data collection and analysis for the sensory profiling protocol (DDASPP). *User's Guide*. T
- Williamson, B.** 1999. Grey mould diseases of plant – economic significance and recent perspectives of practical control. *Proceedings of 14th International Plant Protection Congress*, Jerusalem, 25-30 July. P
- Willock, J., Deary, I.J., Edwards-Jones, G., Gibson, G.J., Dent, J.B., Morgan, O., Grieve, R. & Sutherland, A.** 1999. The role of attitudes in farmer decision-making: business and environmentally oriented behaviour in Scotland. *Journal of Agricultural Economics* 50, 286-303. J
- Willock, J., Deary, I.J., Edwards-Jones, G., Gibson, G.J., McGregor, M.M., Sutherland, A., Dent, B., Grieve, R., Morgan, O. & Austin, E.J.** 1999. The Edinburgh study of decision making on farms: farmers' attitudes, goals and behaviours. *Journal of Vocational Behaviour* 54, 5-36. J
- Wishart, J., Blok, V.C. & Phillips, M.S.** 1999. Molecular and biochemical opportunities and problems in distinguishing morphologically conservative but biologically variable root-knot nematodes. *Proceedings of the British Society of Parasitology Meeting*, Exeter, 1999. P
- Wong, S.-M., Thio, S.S.C., Shintaku, M.H. & Palukaitis, P.** 1999. The rate of cell-to-cell movement in squash of *Cucumber mosaic virus* is affected by sequences of the capsid protein. *Molecular Plant-Microbe Interactions* 12, 628-632. J
- Woodford, J.A.T. & Bourdin, D.** 1999. Biological and molecular comparisons among *Potato leafroll virus* (PLRV) isolates and vector clones from Scotland and France. *Final Report to the British Council, Paris on Alliance Project PN97.067*. T
- Woodford, J.A.T. & Fenton, B.** 1999. Biological and molecular characterisation of clones of *Myzus persicae* and *Myzus antirrhinii* with different efficiencies for *Potato leafroll virus* transmission. *Abstracts of the VIIth International Plant Virus Epidemiology Symposium*, Agrodulce, Almería, Spain, 1999, 54-55. P
- Wright J.A., Smith J., Gundry S.W. & Glasbey, C.A.** 1999. Spatial simulation of rainfall data for crop production modelling in southern Africa. *Proceedings, ModSim 99, the International Congress on Modelling and Simulation* 3, 1069-1071. P
- Young, M.W., Grove, S.J., MacKerron, D.K.L., Marshall, B., McNicol, J.W., Turley, D. & Wiltshire,**

J.J.J. 1999. Defining the factors influencing the parameters of tuber size distribution. *Abstracts 14th Triennial Conference*, EAPR, Sorrento, Italy, 100-101. P

Yu, Y., Tomkins, J., Frisch, D., Waugh, R., Brueggeman, R., Kudrna, D., Kleinhofs, A. & Wing, R. 1999. Construction and characterisation of a barley cv. Morex BAC Library. *Plant and Animal Genome VII*, San Diego, January 1999, 104. P

Zel, J., Stanic, D., Demsar, T., Strukelj, B. & Barker, H. 1999. Transformation of potato cv. Igor for resistance to PVY^{NTN} - results of pot experiments. *Abstracts from the 4th Slovenian Conference on Plant Protection*, Slovenia, 1999, 331-335. P

Zhang, C.J., Machray, G.C. & Wilson, T.M.A. 1999. Improvement of Chinese wheat (*Triticum aestivum* L.) cultivars by transgenesis for resistance to Soilborne wheat mosaic virus (SBWMV). *Abstracts of the IV Symposium of the International Working Group on Plant Viruses with Fungal Vectors*, Asilomar, California, USA. P

Zheng, J. & Brown, D.J.F. 1999. *Xiphinema insigne* Loos, 1949 and *X. hunanense* Wang & Wu 1992 from Hangzhou, China and synonymization of *X. savaryi* Lamberti, Troccoli & Agostinelli, 1997 with *X. insigne* and of *X. siamense*

Lamberti, Troccoli & Agostinelli, 1997 with *X. radicicola* Goodey, 1936 (Nematoda: Longidoridae). *Russian Journal of Nematology* 7, 127-137. J

Ziegler, A. 1999. Cloning of pre-existing hybridomas - production of novel diagnostic tools for plant pathology. In: Harper, K. & Ziegler, A. (eds.). *Recombinant Antibodies: Applications in Plant Science and Plant Pathology*. Taylor and Francis, London, 23-35. R

Ziegler, A. & Harper, K. 1999. Antibodies in plant biotechnology - summary and outlook. In: Harper, K. & Ziegler, A. (eds.). *Recombinant Antibodies: Applications in Plant Science and Plant Pathology*. Taylor and Francis, London, 183-191. R

Ziegler, A., Reavy, B., Cowan, G.C., Mayo, M.A. & Torrance, L. 1999. Production of functional scFv antibodies by four methods of heterologous expression. *Abstracts of Current Topics in Gene Expression Systems Meeting*, San Diego, California, 1999, 37 P

Zuur, G. 1999. Risk of *Salmonella* infection in the poultry production chain. *RSS Conference on Risk*, University of Warwick, 12-15 July 1999. P