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Office of the Pro Vice Chancellor - Sciences

5. Refereed Paper in Conference/Meeting/Symposia Proceedings

Rumball, S. V. (1999). New Zealand in the twenty-first century: Some issues and challenges facing the Sciences sector. In A. de Bruin (Ed.), *The Global Society: Issues and Challenges for New Zealand: Proceedings of the Symposium* (pp. 32-42), February 13, Massey University, Albany, NZ.

13. Addresses to Professional Bodies

Anderson, R. D. (1999). Knowledge is power. *National Careers, Transition and Training Association National Conference*, November 27, Palmerston North, NZ.

Anderson, R. D. (1999). Making science, engineering and technology more accessible. *APEC Science, Engineering and Technology Meeting*, October 29, Palmerston North, NZ.

15. Addresses to Community Organisations

Anderson, R. D. (1999). The modern university. *Levin Rotary Club*, August 20, Levin, NZ.

Anderson, R. D. (1999). The modern university: Is Palmerston North realising its opportunities? *Palmerston North Rotary Club*, April 26, Palmerston North, NZ.

Anderson, R. D. (1999). A vision for agricultural education in the early 21st century and the Massey University response. *Milson Rotary Club*, May 22, Palmerston North, NZ.

Roskrige, N. R. (1999). Opportunities for Māori at Massey University. *Te Atiawa Iwi Authority*, December 10, Owae Marae, Waitara, NZ.

Roskrige, N. R. (1999). Research opportunities at Massey. *Ngaruahinerangi-Waiokura*, May 28, Waiokura Marae, Manaia, NZ.

17. Radio, Television and Newsprint Interviews

Roskrige, N. R. (1999, May 18). Maori spuds seen to be money spinner [Interview]. *The Dominion*.

Roskrige, N. R. (1999, May 4). Purple potato could be a goer for the future [Interview by K. McTamney]. *Evening Standard (Palmerston North, NZ)*.

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Institute of Food, Nutrition and Human Health

1. Refereed Journal Paper/Article

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- Cleland, A. C., & Pound, C. J. (1999). Smarter process development: Engineers who understand food. *Food Science and Technology Today*, 13(3), 139-143.
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3. Book Edited by Staff Member

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4. Chapter in a Book

- Mackerness, S. A.-H., & Jordan, B. R. (1999). Changes in gene expression in response to ultraviolet B-induced stress. In M. Pessarakli (Ed.), *Handbook of plant and crop stress* (pp. 749-768). New York, New York, USA: Marcel Dekker.
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5. Refereed Paper in Conference/Meeting/Symposia Proceedings

- Bryden, W. L., & Ravindran, V. (1999). Enzyme combinations and nutrient digestibility of wheat for broiler chickens. In *Proceedings of the Australian Poultry Science Symposium* (Vol. 11, pp. 170), February 9-10, Sydney, NSW, Australia. Camden, NSW, Australia: University of Sydney, Department of Animal Science.
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6. Non-refereed Journal Paper/Article

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7. Non-refereed Paper in Conference/Meeting/Symposia Proceedings

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Shadbolt, N. M., Rawlings, K. M. (1999). Balancing priorities: Measures of success not only economic but personal, family and off-farm interests and goals. In *Dairyfarming Annual: Including the Proceedings of the 51st Meeting of Dairy Farmers conducted by Massey University* (Vol. 51, pp. 179-192). May 18-20, Whangarei, NZ. Palmerston North, NZ: Massey University.

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13. Addresses to Professional Bodies

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- Mellor, D. J. (1999). Learning from refinement strategies applied at low and high levels of noxiousness. *Moredun Foundation for Animal Health and Welfare*, August 26, Edinburgh, UK.
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- Moughan, P. J. (1999). Efficient use of resources to grow an R&D capability. *Vice Chancellors' Leadership Programme, Massey University*, May 25, Palmerston North, NZ.
- Moughan, P. J. (1999). Food technology for the seafood industry: The future. *Careers in Fishing Conference*, September 6, Wellington, NZ.
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- Purchas, R.W. (1999). The effect of tail docking and season of slaughter on carcasses of Awassi-cross ram lambs. *45th International Congress of Meat Science and Technology*, August 2, Yokohama, Japan.
- Purchas, R. W. (1999). Sheep production and research in New Zealand: Selected aspects. *North and Central Alberta Sheep Producers Group*, August 19, Edmonton, Alberta, Canada.
- Purchas, R. W. (1999). Sheep production and research in New Zealand: Selected aspects. *Southern Alberta Sheep Producers Group*, August 27, Lethbridge, Alberta, Canada.
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- Ravindaran, V. (1999). Microbial phytase as a tool to improve the retention of nutrients other than phosphorus. *BASF/Gist Brocades European Technical Seminars*, June 18-30, Ludwigshafen, Germany; Madrid and Barcelona, Spain; Peebles, Scotland; Delft and Lelystad, The Netherlands.
- Ravindran, V. (1999). Necrotic enteritis in poultry: A review of current knowledge. *New Zealand Feed Manufacturer's Association*, August 24, Auckland, NZ.
- Shadbolt, N. M. (1999). Analysing the health of the farming business and identifying critical success factors. *Preferred Future Workshop, Sheep and Beef Cattle Farmers*, April 14, Marton, NZ.
- Shadbolt, N. M. (1999). Balancing priorities: Making sure your business plan is in balance, for both financial and personal goals. *Intelact 1999 New Zealand Conference*, Rotorua, NZ.
- Shadbolt, N. M. (1999). Balancing priorities: Measures of success not only economic but personal, family and off-farm interests and goals. *51st Meeting of Dairy Farmers*, May 18-20, Whangarei, NZ.
- Shadbolt, N. M. (1999). Benchmarking the farm business. *WestpacTrust*, Normanby, Taranaki, NZ.
- Shadbolt, N. M. (1999). Business planning and key performance measures. *Kairanga Discussion Group*, Palmerston North, NZ.
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- Shadbolt, N. M. (1999). An exploration of the use of the balanced scoreboard approach to achieve better farm business planning and control. *12th International Farm Management Congress*, July 18-24, Durban, South Africa.
- Shadbolt, N. M. (1999). Financial indicators of sustainability: Application progress. *MAF Policy North Island Policy Information Group Meeting*, June 14-15, Rotorua, NZ.
- Shadbolt, N. M. (1999). The health of your business: Drivers of profitability and risk analysis. *Intelact 1999 New Zealand Conference*, Rotorua, NZ.
- Shadbolt, N. M. (1999). How farm management affects property values: Farming to enhance value. *Massey Spring Seminar*, September 3-4, Massey University, Palmerston North, NZ.
- Shadbolt, N. M. (1999). Measuring the financial health of your contracting business. *Pioneer Contractor Conference*, February 9, Rotorua, NZ.
- Shadbolt, N. M. (1999). Profit/Business. *South African Dairy Farmer/Consultants*, May 6, Massey University, Palmerston North, NZ.
- Shadbolt, N. M. (1999). Strategic alliances in the lamb meat supply chain: Implications for breeders, finishers and processors. *New Zealand Institute of Agricultural Science and the New Zealand Society for Horticultural Science Annual Convention*, June 30-July 2, Massey University, Auckland, NZ.
- Shadbolt, N. M. (1999). Trends and relationships between viability and sustainability: Performance indicators for both dairy and sheep and beef cattle farms. *12th International Farm Management Congress*, July 18-24, Durban, South Africa.
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- Simpson, H. V., Scott, I., Simcock, D. C., Reynolds, G. W., & Pomroy, W. E. (1999). Morphological changes induced by adult *Ostertagia circumcincta*. *17th International Conference of the World*

Association for the Advancement of Veterinary Parasitology, August 15-19, Copenhagen, Denmark.

Wall, C. (1999). Childrens nutrition. *Curriculum Facilitators, Ministry of Education*, March 26, Auckland, NZ.

Wall, C. (1999). Studies of iron status in Auckland children. *New Zealand Dietitians Association*, March 30, Auckland, NZ.

14. Extension Activity

Barugh, I., & Pearson, G. (1999). (Seminar). Alternative low-cost pig housing options. *New Zealand Pork, and Pork Producers*, November 1, Timaru, NZ.

Barugh, I., & Pearson, G. (1999). (Seminar). Alternative low-cost pig housing options. *New Zealand Pork, and Pork Producers*, November 2, Christchurch, NZ.

Barugh, I., & Pearson, G. (1999). (Seminar). Alternative low-cost pig housing options. *New Zealand Pork, and Pork Producers*, November 3, Palmerston North, NZ.

Barugh, I., & Pearson, G. (1999). (Seminar). Alternative low-cost pig housing options. *New Zealand Pork, and Pork Producers*, November 4, Maungaturoto, NZ.

Barugh, I., & Pearson, G. (1999). (Seminar). Alternative low-cost pig housing options. *New Zealand Pork, and Pork Producers*, November 4, Pukekohe, NZ.

Barugh, I. (1999). Local discussion meeting for northern region pork producers. *New Zealand Pork*, June 22, Maungaturoto, NZ.

Barugh, I. (1999). Local discussion meeting for northern region pork producers. *New Zealand Pork*, June 22, Pukekohe, NZ.

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Barugh, I., & Pluske, J. (1999). (Seminar). Looking into the future. *New Zealand Pork, and Pork Producers*, March 11, Timaru, NZ.

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Barugh, I., & Pluske, J. (1999). (Seminar). Looking into the future. *New Zealand Pork, and Pork Producers*, March 23, Hawera, NZ.

Barugh, I., & Pluske, J. (1999). (Seminar). Looking into the future. *New Zealand Pork, and Pork Producers*, March 24, Palmerston North, NZ.

Barugh, I., & Pluske, J. (1999). (Seminar). Looking into the future. *New Zealand Pork, and Pork Producers*, March 30, Blenheim, NZ.

Barugh, I., & Pluske, J. (1999). (Seminar). Looking into the future. *New Zealand Pork, and Pork Producers*, March 31, Christchurch, NZ.

Barugh, I., & Pearson, G. (1999). (Study tour). Pork production in South Australia. *Australasian Pig Science Association Conference*, December 2-3, Adelaide, SA, Australia.

Brookes, I. (1999). (Workshops). Feeding dairy cows in pasture-base systems. *Centre for Agricultural and Veterinary Continuing Education, and AgMardt*, May 26-27, Levin, NZ.

Brookes, I. (1999). (Workshops). Feeding dairy cows in pasture-base systems. *Centre for Agricultural and Veterinary Continuing Education, and AgMardt*, July 6-7, Palmerston North, NZ.

Brookes, I. (Convenor). (1999). Massey Dairy Farmers Conference. *Dairy Farmers*, May 18-20, Whangarei, NZ.

Brookes, I. (1999). (Presentation). Nutritional issues for the dairy herd. *Livestock Improvement Dairy Discussion Group*, November 26, Carterton, NZ.

Mellor, D. J. (1999). The Animal Welfare Act 1999: Ethics and animal use in science. *Manaaki Whenua Landcare Research*, October 19, Lincoln, NZ.

Mellor, D. J. (1999). (Presentation) The Animal Welfare Science and Bioethics Centre at Massey University: Its purposes and activities provided. *MAF Training Course for Animal Welfare Inspectors*, February 12, Palmerston North, NZ.

Mellor, D. J. (1999). (Seminar). Ethics and human research. *Milk Health Research Centre, and Dairy Research Institute*, July 21, Palmerston North, NZ.

- Mellor, D. J. (Discussion facilitator). (1999). Pest welfare workshop: Current knowledge and required future actions. *Manaaki Whenua Landcare Research*, October 21, Lincoln, NZ.
- Mellor, D. J. (1999). (Block course). Pig welfare. *Monogastric Research Centre*, April 28, Massey University, Palmerston North, NZ.
- Mellor, D. J. (1999). (Block course). Pig welfare. *Monogastric Research Centre*, May 24, Massey University, Palmerston North, NZ.
- Mellor, D. J. (1999). (Block course). Poultry welfare. *Monogastric Research Centre*, June 16, Massey University, Palmerston North, NZ.
- Mellor, D. J. (1999). (Block course). Poultry welfare. *Monogastric Research Centre*, July 21, Massey University, Palmerston North, NZ.
- Mellor, D. J. (1999). (Block course). Poultry welfare. *Monogastric Research Centre*, November 4, Massey University, Palmerston North, NZ.
- Moughan, P., Jordan, B., Barugh, I., & Hendriks, W. (1999). New Zealand Pork Annual Conference, *New Zealand Pork*, July, Wellington, NZ.
- Ravindran, V. (1999). (Block course). Basic mathematics. *Monogastric Research Centre*, June 14-18, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Basic mathematics. *Monogastric Research Centre*, July 19-23, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Basic mathematics. *Monogastric Research Centre*, November 1-5, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Feed formulation. *Monogastric Research Centre*, June 14-18, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Feed formulation. *Monogastric Research Centre*, July 19-23, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Feed formulation. *Monogastric Research Centre*, November 1-5, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Nutrient requirements for poultry. *Monogastric Research Centre*, June 14-18, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Nutrient requirements for poultry. *Monogastric Research Centre*, July 19-23, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Nutrient requirements for poultry. *Monogastric Research Centre*, November 1-5, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Process of digestion in birds. *Monogastric Research Centre*, June 14-18, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Process of digestion in birds. *Monogastric Research Centre*, July 19-23, Massey University, Palmerston North, NZ.
- Ravindran, V. (1999). (Block course). Process of digestion in birds. *Monogastric Research Centre*, November 1-5, Massey University, Palmerston North, NZ.
- Shadbolt, N. M. (Judge). (1999). Finals. *Taranaki Sheep and Beef Farmer of the Year*, April, Taranaki, NZ.
- Shadbolt, N. M. (1999). (Seminar). Managing business risk for a positive future. *Dairy Business Focus*, March 8-12, WA, Australia.
- Shadbolt, N. M. (1999). (Workshops). Managing business risk for a positive future. *Dairy Business Focus*, March 8-12, WA, Australia.

15. Addresses to Community Organisations

- Jordan, B. (1999). Genetically modified foods. *Milson Rotary Club*, August 23, Palmerston North, NZ.
- Jordan, B. (1999). Genetically modified foods. *Rotary Club of Wairarapa*, July 14, Greytown, NZ.
- Mellor, D. J. (1999). Ethics, etiquette and everyday life. *Milson Rotary Club*, April 12, Palmerston North, NZ.

16. Professional Consultancy

- Cottam, Y., & Hendriks, W. H. (1999). Captive rearing diet of the New Zealand shore plover at Mt Bruce National Wildlife Centre. *Department of Conservation*, July.
- Mellor, D. J., Stafford, K. J., & Gregory, N. G. (1999). Alleviation of calf dehorning distress. *MAF Policy and Animal Welfare Advisory Committee*, July.
- Mellor, D. J. (1999). Comments and critique of a World Veterinary Association white paper on animal care and use in agriculture, research and training. *MAF Regulatory Authority*, June.

- Mellor, D. J., Stafford, K. J., & Gregory, N. G. (1999). Controlling inflammatory pain after amputation dehorning in calves. *MAF Policy and Animal Welfare Advisory Committee*, October.
- Mellor, D. J. (1999). Further comments on a hominid rights amendment for the Animal Welfare Bill. *Primary Production Select Committee*, February.
- Mellor, D. J. (1999). A review of acute castration and tailing distress and its alleviation in lambs and calves. *MAF Regulatory Authority and Animal Welfare Advisory Committee*, June.
- Ravindran, V. (1999). Forced moulting in laying hens. *MAF Animal Welfare Advisory Committee*.
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- Boglaev, I. (1999). Parallel algorithms for singularly perturbed problems. *New Zealand Mathematics Colloquium, New Zealand Mathematics Society*, July 6-9, University of Canterbury, Christchurch, NZ.
- Boglaev, I. (1999). Uniform convergent methods on arbitrary meshes for singularly perturbed problems. *International Conference on Numerical Ordinary Differential Equations*, August 16-20, University of Auckland, Auckland, NZ.
- Boyd, P. D. W., Brothers, P. J., Burrell, A. K., Chaker, L., Fackler, N. L. P., Hodgson, M. C., Officer, D. L., Reed, C. A., & Rickard, C. E. F. (1999). Fullerene-porphyrin supramolecular chemistry. *Organometallic Chemistry in the South Pacific*, January 24-28, Auckland, NZ.
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- Brown, S. (1999). How do penguins cope with cold? A non-invasive solution. *Antarctic Science Seminar*, March 25, Victoria University of Wellington, Wellington, NZ.
- Brown, S., Ryland, P. S., O'Driscoll, R. C., Dykstra, R., & Revell, D. K. (1999). Non-invasive measurement of physiological and metabolic parameters by near-IR spectroscopy. *Australian Society for Biophysics*, October 2, Broadbeach, Qld, Australia.

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- Burrell, A. K. (1999). Controlling reactivity in rhenium imido complexes. *Organometallic Chemistry in the South Pacific*, January 24-28, Auckland, NZ.
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- Callaghan, P. T. (1999). Beyond q-space. *4th International Conference on Magnetic Resonance Microscopy*, September 5, Heidelberg, Germany.
- Callaghan, P. T. (1999). Generalised measurement of spin translation. *Waterloo Summer School on NMR*, June 23, Waterloo, Ontario, Canada.
- Callaghan, P. T. (1999). Measurement of weak proton dipolar interactions. *1st European Conference in Solid State NMR*, September 15, Chamonix, France.
- Callaghan, P. T. (1999). Rheo NMR: Rheological insights by means of NMR. *Conference, Euro Rheo 98 "European Conference on Macromolecular Physics"*, May 5, Sophia-Antipolis, France.
- Callaghan, P. T. (1999). Rheo NMR. *National Physics Conference, New Zealand Institute of Physics*, July 9, Wellington, NZ.
- Callaghan, P. T. (1999). Rheo NMR. *Waterloo Summer School on NMR*, June 22, Waterloo, Ontario, Canada.
- Callaghan, P. T. (1999). Rheo NMR and biomolecular interactions. *13th International Union of Pure and Applied Biophysics Meeting*, September 20, New Delhi, India.
- Campbell, C. M., Burrell, A. K., & Officer, D. L. (1999). Cooking up mixed-metal and mixed-porphyrin linear trimers, pentamers and pancake nonamers. *IC '99, Royal Australian Chemical Institute and the Inorganic and Organometallic Specialist Group of the New Zealand Institute of Chemistry*, January 31-February 4, Wellington, NZ.
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- Guo, L., & Wright, A. H. (1999). High nuclearity ruthenium-sulfur clusters. *IC '99: Royal Australian Chemical Institute and the Inorganic and Organometallic Specialist Group of the New Zealand Institute of Chemistry*, January 31-February 4, Wellington, NZ.
- Hall, S. B. (1999). Perspectives on battery research. *New Materials for Energy Capture & Storage Symposium*, August 3, Science Centre and Manawatu Museum, Palmerston North, NZ.
- Hedwig, G. R. (1999). Heat capacities of the constituent groups of unfolded proteins in aqueous solution. *26th International Conference on Solution Chemistry*, July 26-31, Fukuoka, Japan.
- Hedwig, G. R. (1999). Heat capacities of the constituent groups of unfolded proteins in aqueous solution. *Department of Chemistry, University of Bergen*, June 29, Norway.
- Holzhauser, U., & Lambert, R. K. (1999). A theoretical analysis of tracheal collapse. *American Thoracic Society International Conference*, April 23-28, San Diego, California, USA.
- Huber, K. (1999). Some new aspects on the Buneman graph. *4th Slovene International Conference in Graph Theory*, June 28-July 2, Bled, Slovenia.
- Hudson, J. F. P. (1999). Constructing surfaces using alpha shapes and homology. *Conference on Surface Approximation and Visualisation*, February 16, University of Canterbury, Christchurch, NZ.
- Jameson, G. B., & Anderson, B. F. (1999). Protein structures and twinning. *XVIIIth IUCr Congress and General Assembly*, August 4-13, Glasgow, UK. Glasgow, UK: International Union of Crystallography.
- Kirk, A. H. P., Reeves, R. D., & Hall, S. B. (1999). Extraction of nickel from hyperaccumulator plant ash. *New Zealand Institute of Chemistry Conference*, December 9, Wellington, NZ.

- Lambert, R. K., Bel, E. H. D., & Tiddens, H. A. W. M. (1999). Compliance of small cartilaginous human airways before and after bronchoconstruction and effect on resistance. *International Conference, American Thoracic Society*, April 23-28, San Diego, California, USA.
- Lambert, R. K. (1999). Hypersensitivity vs hyperresponsiveness: A structural interpretation. *International Conference, American Thoracic Society*, April 23-28, San Diego, California, USA.
- Little, C. H. C. (1999). Towards a characterisation of Pfaffian graphs. *Center for Mathematics and Computer Science*, May 26, Amsterdam, The Netherlands.
- Little, C. H. C. (1999). Towards a characterisation of Pfaffian graphs. *Charles University*, December 7, Prague, Czech Republic.
- Little, C. H. C. (1999). Towards a characterisation of Pfaffian graphs. *University of Ljubljana*, April 1, Ljubljana, Slovenia.
- Little, C. H. C. (1999). Towards a characterisation of Pfaffian graphs. *University of Mining*, October 12, Leoben, Austria.
- McKibbin, R. (1999). Pollen: where does it go, where is it from? *ANZIAM '99, 35th Applied Mathematics Conference*, February 11, Mollymook, NSW, Australia.
- McLachlan, R. (1999). Geometry and fluid dynamics. *Manawatu-Wellington Applied and Computational Mathematics Conference*, January 26, Petone, NZ.
- McLachlan, R. (1999). Splitting methods. *Workshop on Multibody Mechanics and Control*, July 29, Oberwolfach, Germany.
- McLachlan, R. (1999). Symmetry, pseudospectral methods and conservative PDEs. *EQUADIFF '99*, August 5, Berlin, Germany.
- McLachlan, R. (1999). Symmetry, pseudospectral methods and conservative PDEs. *Foundations of Computational Mathematics*, July 26, Oxford, UK.
- Nielson, A. J., & Waters, J. M. (1999). Phenoxide complexes of titanium. *Organometallic Chemistry in the South Pacific*, January 24-28, Auckland, NZ.
- Officer, D. L., & Burrell, A. K. (1999). Artificial photosynthesis. *Renewable Energy Research Showcase Seminar: The role of renewable energy technologies in New Zealand's future*, November 17, Massey University, Palmerston North, NZ.
- Officer, D. L., & Burrell, A. K. (1999). An update on the Millennium Solar Project and artificial photosynthesis research. *Photovoltaic (PV) Update Meeting*, June 23, Wellington, NZ.
- Page, S. E., Gordon, K. C., & Burrell, A. K. (1999). Altering the balance between ligand-based radical anion formation and dechelation in electrochemically reduced binuclear copper(I) complexes: A resonance raman spectroelectrochemical study. *IC '99, Royal Australian Chemical Institute and the Inorganic and Organometallic Specialist Group of the New Zealand Institute of Chemistry*, January 31-February 4, Wellington, NZ.
- Parker, E. J. (1999). Enzymic synthesis of 6-Fluoroshikimic acids. *AWIS - Living Science Conference*, July 1, University of Otago, Dunedin, NZ.
- Parker, E. J. (1999). Mechanistic studies on shikimate pathway enzymes. *Department of Chemistry, University of Canterbury*, June 28, Christchurch, NZ.
- Parker, E. J. (1999). Mechanistic studies on shikimate pathway enzymes. *Department of Chemistry, University of Otago*, June 29, Dunedin, NZ.
- Reeves, R. D., Baker, A. J. M., Berazaín, R., & Borhidi, A. (1999). Serpentine flora of Cuba: The world's richest source of nickel hyperaccumulators. *Third International Conference on Serpentine Ecology*, March 22-28, Berg-en-Dal, South Africa.
- Reeves, R. D., Kruckeberg, A. R., Adigüzel, N., & Krämer, U. (1999). Studies on the flora of serpentine and other metalliferous areas of western Turkey. *Third International Conference on Serpentine Ecology*, March 22-28, Berg-en-Dal, South Africa.
- Steedman, A. J., & Burrell, A. K. (1999). An investigation of steric effects on the structure of Re imido complexes. *IC '99, Royal Australian Chemical Institute and the Inorganic and Organometallic Specialist Group of the New Zealand Institute of Chemistry*, January 31-February 4, Wellington, NZ.
- van-Brunt, B. (1999). Compliant components. *ANZIAM '99, 35th Applied Mathematics Conference*, February 9, Mollymook, NSW, Australia.
- van-Brunt, B. (1999). Compliant components. *Conference on Surface Approximation and Visualization*, February 16, University of Canterbury, Christchurch, NZ.
- Wright, A. H., & Guo, L. (1999). High nuclearity ruthenium-sulfur clusters. *Organometallic Chemistry in the South Pacific*, January 24-28, Auckland, NZ.

- Wright, A. H., Buckley, P. D., & Pavlinic, S. (1999). Towards a method of evaluating computer assisted learning software. *Australasian Science Education Research Association Annual Conference*, July 9-11, Rotorua, NZ.
- Wright, A. H., & Edwards, J. (1999). Writing software for chemical education. *ChemEd 99*, June 27-30, Hamilton, NZ.

14. Extension Activity

- Callaghan, P. T. (1999). (Physics High School Teachers' meeting). Conceptual problems in Newton's Laws. *Institute of Fundamental Sciences (Physics)*, August 20, Massey University.
- Hall, S. B. (1999). (Massey University, College of Sciences Roadshow). Why study science?. *Paraparaumu High School*, August 16, Paraparaumu, NZ.
- Hall, S. B. (1999). (Massey University, College of Sciences Roadshow). Why study science? *Hawera High School*, August 17, Hawera, NZ.
- Huber, K. (1999). (Seminar). Computing the injective hull of a metric space. *University of Auckland*, April 30, Auckland, NZ.
- Huber, K. (1999). (Seminar). Metrische Räume und ihre injektive Hülle. *Ludwig-Maximilians Universität*, June 18, Munich, Germany.
- Huber, K. (1999). (Seminar). Some new aspects on the Buneman graph. *Mid Sweden University*, October 18, Sundsvall, Sweden.
- McKelvie, J. M. (1999). (Physics High School Teachers' meeting). Interactive lecture demonstrations: Addressing the difficulties. *Institute of Fundamental Sciences (Physics)*, August 20, Massey University.
- McKelvie, J. M. (1999). (Catch-up courses). Physics catch-up course lecturer. *Institute of Fundamental Sciences*, January 25 - February 10, Massey University.
- McKibbin, R. (1999). (Mathematics High School Teachers' meeting). What goes up must come down: Modelling with mathematics. *Institute of Fundamental Sciences*, October 20, Massey University.
- Signal, A. I. (Leader). (1999). New Zealand Physics Olympiad Team. *New Zealand Physics Olympiad Team*, February-July, Padua, Italy.
- Signal, A. I. (Leader). (1999). New Zealand Physics Olympiad Team. *New Zealand Physics Olympiad Team*, February-July, NZ.
- van Melsem, J. (Lecturer). (1999). Chemistry catch-up course. *Institute of Fundamental Sciences, Massey University*, January 25-February 10, Palmerston North, NZ.
- Wright, A. H., & van Eyk, S. (1999). (Chemistry High School Teachers' meeting). Chemical industry as a resource. *Institute of Fundamental Sciences (Chemistry)*, Massey University, April 30, Palmerston North, NZ.
- Wright, A. H., & Bendall, J. (1999). (Chemistry Teachers' meeting). Chemistry of flavours. *Institute of Fundamental Sciences (Chemistry)*, Massey University, October 17, Palmerston North, NZ.
- Wright, A. H. (1999). (Workshop for intermediate/secondary teachers). Making science fair projects work. *Manawatu Science and Technology Fair*, April 27, Science Centre and Manawatu Museum, Palmerston North, NZ.

15. Addresses to Community Organisations

- Callaghan, P. T. (1999). Antarctic connections. *Public Lecture*, July 22, Science Centre and Manawatu Museum, Palmerston North, NZ.
- Callaghan, P. T. (1999). Antarctic sea ice research. *Manawatu Lions*, July 22, Palmerston North, NZ.
- Callaghan, P. T. (1999). Antarctic sea ice research. *Middle District Lions*, November 16, Palmerston North, NZ.
- Parker, E. J. (1999). New horizons in science, technology and engineering. *Levin Schools*, August 16, Levin, NZ.
- Parker, E. J. (1999). New horizons in science, technology and engineering. *Wairarapa Schools*, August 10, Wairarapa, NZ.

16. Professional Consultancy

- Callaghan, P. T. (1999). Potential dairy shed use of NMR. *DEC, Hamilton*, November.
- Callaghan, P. T. (1999). Relaxometry and diffusometry in cheese. *New Zealand Dairy Research Institute*, June.
- Edwards, P. J. B. (1999). NMR analysis of Ecotan-CSP-Confidential. *Leather and Shoe Research Association*, June.

McLachlan, R., & McKibbin, R. (1999). Algorithms for 'PERFORM'. *Knowledge Management Ltd*, May 21.

van-Brunt, B. (1999). The diffusion of selenium. *Kiwitech Ltd*, August 11.

van-Brunt, B. (1999). Influence of geometry on the diffusion of selenium. *Kiwitech Ltd*, July-August.

17. Radio, Television and Newsprint Interviews

Ayers, J. S. (1999, April 30). Pace of progress adds pressure [Interview by J. Saunders]. *Evening Standard (Palmerston North, NZ)*.

van-Brunt, B. (1999, June 19). High on life [Interview by D. Dwyer]. *Evening Standard (Palmerston North, NZ)*, 7.

Institute of Information and Mathematical Sciences

1. Refereed Journal Paper/Article

- Fielden, K. (1999). Developing human relationship values in information systems professionals. *Chinmaya Management Review*, 2(11), 134-148.
- Hossain, L. (1999). Fostering economic development through telecommunications in South East Asia: Challenges facing the Thai telecommunications regulators. *Technovation: An International Journal of Technical Innovation and Entrepreneurship*, 19(11), 681-689.
- John, J. A., & Ruggiero, K. (1999). Resolvable block designs for factorial experiments. *Journal of Statistical Planning and Inference*, 77(2), 293-299.
- Meyer, D. H., & Napier-Munn, T. J. (1999). Optimal experiments for time-dependent mineral processes. *Australian and New Zealand Journal of Statistics*, 41(1), 3-17.
- Napier-Munn, T. J., & Meyer, D. H. (1999). A modified paired t-test for the analysis of plant trials with data autocorrelated in time. *Minerals Engineering*, 12(9), 1093-1109.

2. Book Authored by Staff Member

- Page, C., & Meyer, D. H. (1999). *Applied Research Design for Business and Management*. Sydney, NSW, Australia: McGraw-Hill.

4. Chapter in a Book

- Fielden, K. (1999). Balancing at the edge of chaos in a socio-technical world. In E. Coakes, D. Willis, & R. Lloyd-Jones (Eds.), *The new sociotech: Graffiti on the long wall* (pp. 549-558). New York, New York, USA: Springer.

5. Refereed Paper in Conference/Meeting/Symposia Proceedings

- Calude, C. S., & Calude, E. (1999). Bisimulations and behaviour of nondeterministic automata. In W. Thomas (Ed.), *DLT 99: Developments in language theory, Fourth International Conference: Preproceedings* (pp. 129-139), July 6-9, Aachen, Germany. Aachen, Germany: Informatik-Berichte.
- Calude, C. S., Calude, E., & Svozil, K. (1999). Quantum correlations conundrum: An automaton-theoretic approach. In O. Boldt, H. Jürgensen, & L. Robbins (Eds.), *Workshop on Implementing Automata, WIA 99: Pre-proceedings* (Vol. 7, pp. 1-12) July 17-19, Universität Potsdam, Potsdam, Germany. Germany: Institut für Informatik.
- Fielden, K. (1999). Starting right: Ethical education for information systems developers. In C. R. Simpson (Ed.), *AICEC99 conference proceedings* (pp. 147-156), July 14-16, Swinburne University of Technology, Melbourne, Vic., Australia. Hawthorn, Vic., Australia: Australian Institute of Computer Ethics.
- Page, C., Meyer, D. H., & Wilson, M. (1999). Forms of support as key influences on the ability to be effective as a manager. In *Academy of Business and Administrative Sciences Conference*, July 12-14, Barcelona, Spain. Available: <http://www.sba.muohio.edu/abas/1999/proceedings.html>
- Page, C., Wilson, M., & Meyer, D. H. (1999). A three domain, two dimension model of managerial effectiveness. In *Academy of Business and Administrative Sciences Conference*, July 12-14, Barcelona, Spain. Available: <http://www.sba.muohio.edu/abas/1999/proceedings.html>
- Skarmstad, T., Khan, M. K., & Rashid, M. A. (1999). Constructing commercial off-the-shelf from legacy systems: A conceptual framework. In B. Hope, & P. Yoong (Eds.), *Proceedings of the 10th Australasian Conference on Information Systems* (Vol. 2, pp. 798-805), December 1-3, Victoria University of Wellington, Wellington, NZ. Wellington, NZ: Victoria University of Wellington, School of Communication and Information Management.
- Viehland, D. W. (1999). New business models for electronic commerce. In J. Quincy-Bryant (Ed.), *Proceedings of the 17th Annual International Conference of the Association of Management/International Association of Management* (Vol. 17, pp. 141-143), August 6-8, San Diego, California, USA. Chesapeake, Virginia, USA: Maximilian Press.

6. Non-refereed Journal Paper/Article

- Viehland, D. W. (1999). Electronic commerce changes business. *Chartered Accountants Journal of New Zealand*, 78(5), 7-10.

7. Non-refereed Paper in Conference/Meeting/Symposia Proceedings

Threlfall, J., Cowpertwait, P. S. P., Strandner, H., & Clifford, I. (1999). Temporal and spatial rainfall model simulations for integrated urban wastewater system modelling. In *Danish Hydraulic Institute Software Conference* (pp. 1-9), June 8, Gotenburg, Sweden. Gotenburg, Sweden: Dansk Hydraulisk Institut.

8. Book Review

Viehland, D. W. (1999). [Review of the book *The Internet for accountants*]. *Chartered Accountants Journal of New Zealand*, 78(5), 30.

9. Other Publications

Calude, C. S., & Calude, E. (1999). *Bisimulations and behaviour of nondeterministic automata* (CDMTCS Research Report No. 092). Auckland, NZ: Centre for Discrete Mathematics and Theoretical Computer Science.

Calude, C. S., Calude, E., & Svozil, K. (1999). *Computational complementarity for probabilistic automata* (CDMTCS Research Report No. 113). Auckland, NZ: Centre for Discrete Mathematics and Theoretical Computer Science.

Calude, C. S., Calude, E., & Svozil, K. (1999). *Quantum correlations conundrum: An automaton-theoretic approach* (CDMTCS Research Report No. 106). Auckland, NZ: Centre for Discrete Mathematics and Theoretical Computer Science.

Calude, C. S., Calude, E., Chiu, T., & Dumitrescu, M. (1999). *Testing computational complementarity for Mermin automata* (CDMTCS Research Report No. 109). Auckland, NZ: Centre for Discrete Mathematics and Theoretical Computer Science.

Hunter, J. J. (1999, April). Bad maths marks. *New Zealand Science Monthly*, 5.

Hunter, J. J. (1999). *Encyclopedia of Statistical Sciences Update* (Vol. 3, p. 536). New York, New York, USA: John Wiley.

Hunter, J. J. (1999, October 29). Pushing for a contradictory solution: Government cuts are affecting "knowledge economy" areas. *New Zealand Education Review*, 5.

Phillips, C. H. E., & Scogings, C. J. (1999). Modelling tasks and dialogue with *Lean Cuisine+*. *CHI 99 Pre-Conference Workshop*, May 15-17, Pittsburgh, Pennsylvania, USA.

Viehland D. W. (1999, June 13). It's time for information age management. *InfoTech Weekly*, 31.

Viehland, D. W. (1999, January). Information age economy entering maturity. *Management Development Digest* [On-line]. Available: http://www.nzcm.org.nz/news/jan_99.htm#information

Watson, P., & McDonald, B. W. (1999). *Nutrition during pregnancy*. Wellington, NZ: Ministry of Health.

11. Software

Johnson, M. (1999). *JFE and GCC*. C/C++ Compiler and editor. Requires Microsoft Windows 95 or higher. Available: <http://cs-alb-pc3.massey.ac.nz/software/gcc.exe>

Johnson, M. (1999). *LOGWIN*. Digital Logic Simulator. Requires Microsoft Windows 95 or higher. Available: <http://cs-alb-pc3.massey.ac.nz/software/logwin32.exe>

13. Addresses to Professional Bodies

Calude, E. (1999). Bisimulations and behaviour of nondeterministic automata. *Logic in Computer Science Seminar*, November 20, Japan Advanced Institute for Science and Technology, Ishikawa, Japan.

Cooper, S. (1999). Powers of Euler's product and related identities. *International Workshop on Special Functions*, June 21, City University of Hong Kong, Hong Kong.

Goldson, D. (1999). An example of multiprogram development. *Fifth New Zealand Formal Program Development Colloquium*, January 21, Massey University, Albany, NZ.

Hunter, J. J. (1999). The computation of stationary distributions of Markov chains through perturbations. *10th INFORMS Applied Probability Conference*, July 26, Ulm, Germany.

Hunter, J. J. (1999). A survey of generalized inverses and their use in stochastic modelling. *International Conference on Stochastic Processes and their Applications*, December 18, Cochin, India.

Meylan, M. (1999). Resonance scattering in hydroelasticity. *New Zealand Mathematics Society*, July 7, University of Canterbury, Christchurch, NZ.

Meylan, M. (1999). Solution of the linear Boltzmann equation using spectral methods. *Department of Mathematics, University of Otago*, July 30, University of Otago, Dunedin, NZ.

- Viehland, D. W. (1999). Electronic commerce: Promises, problems and solutions. *1999 Professional Development Conference, Institute of Chartered Accountants of New Zealand*, March 12, Christchurch, NZ.
- Viehland, D. W. (1999). Electronic commerce: Promises, problems and solutions. *1999 Professional Development Conference, Institute of Chartered Accountants of New Zealand*, March 19, Wellington, NZ.
- Viehland, D. W. (1999). Electronic commerce: Promises, problems and solutions. *1999 Professional Development Conference, Institute of Chartered Accountants of New Zealand*, March 26, Auckland, NZ.
- Viehland, D. W. (1999). Electronic commerce: Promises, problems and solutions. *1999 Professional Development Conference, Institute of Chartered Accountants of New Zealand*, March 30, Taupo, NZ.
- Viehland, D. W. (1999). Electronic commerce technologies and network security. *1999 Technology Smorgasbord Conference, Institute of Chartered Accountants of New Zealand*, June 10, Christchurch, NZ.
- Viehland, D. W. (1999). Electronic commerce technologies and network security. *1999 Technology Smorgasbord Conference, Institute of Chartered Accountants of New Zealand*, June 14, Wellington, NZ.
- Viehland, D. W. (1999). Electronic commerce technologies and network security. *1999 Technology Smorgasbord Conference, Institute of Chartered Accountants of New Zealand*, June 21, Auckland, NZ.
- Viehland, D. W. (1999). Reinventing the middleman and designing your web. *University of Auckland*, April 21, Auckland, NZ.
- Viehland, D. W. (1999). Stories from security land. *The New Zealand Information Security Forum*, October 7, Auckland, NZ.
- Viehland, D. W. (1999). Security on electronic networks. *The 1999 Queenstown Conference, Institute of Chartered Accountants of New Zealand, Otago Branch*, October 9, Queenstown, NZ.
- Viehland, D. W. (1999). Understanding electronic commerce. *1999 DFK Asia Pacific Conference*, October 27, Auckland, NZ.
- Viehland, D. W. (1999). Why is electronic commerce important? *Consultants and Customers of Clear Communications*, September 2, Wellington, NZ.
- Whineray, S. (1999). Parameter space boundaries in the Duffing oscillator. *Asian Pacific Centre for Theoretical Physics*, July 7, Korea University, Seoul, Korea.
- Whineray, S. (1999). Parameter space boundaries in the Duffing oscillator. *Dynamic Days (Europe)*, June 21, Como, Italy.
- Whineray, S. (1999). Parameter space boundaries in the Duffing oscillator. *Dynamic Days (Asia)*, July 15, Hong Kong Baptist University, Hong Kong.

14. Extension Activity

- Viehland, D. W., & Le Heron, J. (1999). (Short Course). Exploring the World Wide Web. *Information Technology module of the Genesis National Science and Technology Forum*, January 12-14, Albany, NZ.

15. Addresses to Community Organisations

- Edwards, H. (1999). Massey University engineering and information sciences programmes. *Lynfield College*, August 7, Auckland, NZ.

17. Radio, Television and Newsprint Interviews

- Viehland, D. W. (1999, December 13). Students brainstorm on the net [Interview by J. Banfield]. *Computer World*, 6.
- Viehland, D. W. (1999, July 11). Victoria leads the e-commerce race [Interview by A. Wells]. *InfoTech Weekly*, 11.

Institute of Information Sciences and Technology

1. Refereed Journal Paper/Article

- Amirul Islam, F. M., Wasimi, S. A. , & Wood, G. R. (1999). Macro-scale influence of climate on crop production in the Fitzroy catchment of Central Queensland. *Australian Journal of Agricultural Research*, 50(4), 529-536.
- Blakey, P., Phillips, C., & Bunnell, J. (1999). On the role of metaphor in conceptual models for end-user training. *Journal of Systems and Information Technology*, 2(2), 1-10.
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- Ganesalingam, S. (1999). EM-algorithm and applications. *Department of Statistics and Operations Research, Royal Melbourne Institute of Technology*, May 27, Melbourne, Vic., Australia.
- Ganesh, S. (1999). Data mining: a statistical impression. *Biometrics 99*, December 17, Hobart, Tasmania, Australia.
- Godfrey, A. J. (1999). "Gotta know your onions" or "A new approach for clustering cultivars in genotype-environment analysis with sparsity in the data. *New Zealand Statistical Association 50th Anniversary Conference*, July 6, Wellington, NZ.
- Govindaraju, K. (1999). Continuous sampling plans for Markov dependent production processes under limited inspection capacity. *First Western Pacific and Third Australia-Japan Workshop on Stochastic Models in Engineering Technology and Management*, September 24, Christchurch, NZ.
- Gunetileke, S. (1999). Seeding an ANN from problem knowledge for image processing tasks. *Image and Vision Computing New Zealand*, August 30, Christchurch, NZ.
- Gunetileke, S. (1999). Selecting an ANN from problem knowledge for image processing tasks. *ICONIP/ANZIS/ANNES'99 International Workshop*, November 22, Dunedin, NZ.
- Haslett, S. (1999). Properties of the similarity index from DNA fingerprinting data. *Department of Statistics, University College*, April 21, Dublin, Ireland.
- Haslett, S. (1999). Small area estimation given regular updates of census auxiliary variables. *Department of Statistics, Trinity College*, April 14, Dublin, Ireland.
- Haslett, S. (1999). Statistics and public questions. *Conference on Applied Statistics in Ireland*, May 27, Belfast, Ireland.
- Heinrich, E. (1999). A natural language like description language. *10th Australasian Conference on Information Systems*, December 2, Wellington, NZ.
- Heinrich, E. (1999). A natural language like description language. *Institut für Informations Verarbeitung and Computergestuetzte Neue Medien, Technical University of Graz*, December 6, Graz, Austria.
- Heinrich, E. (1999). PAC: An information system to support the analysis of multimedia data. *School of Education, University of Auckland*, October 18, Auckland, NZ.
- Hodgson, R. M. (1999). Digital image processing applied to measurement tasks: Case studies from a practitioner. *International Workshop on Optical Measurement (IWOM)*, April 14, Liverpool, UK.
- Hodgson, R. M. (1999). The microelectronic component of an information and telecommunication degree. *Symposium on Education in Microelectronics and MEMS*, October 28, Royal Pines Resort, Qld, Australia.

- Hodgson, R. M. (1999). Towards the use of problem knowledge in training neural networks for image processing tasks. *Seventh International Conference on Image Processing, organised by the Institution of Electrical Engineers (IEE)*, July 15, Manchester, UK.
- Jesshope, C. R. (1999). Multi-processors and microprocessors: Some bandwidth and latency issues and architectural solutions to the technological limitations. *European Community Workshop on Optical Communication in Computer Systems*, March 6, Toulouse, France.
- Jesshope, C. R. (1999). Tools for the rapid development of low-bandwidth streaming multimedia. *Department of Distance Education and Technology, University of British Columbia*, November 1, Vancouver, BC, Canada.
- Jesshope, C. R. (1999). Tools for the rapid development of low-bandwidth streaming multimedia. *Division of Continuing Studies, University of Victoria*, November 2, Victoria, BC, Canada.
- Jesshope, C. R. (1999). Tools for the rapid development of low-bandwidth streaming multimedia. *Education Centre, University of Alberta*, November 5, Edmonton, Alberta, Canada.
- Jesshope, C. R. (1999). Tools for the rapid development of low-bandwidth streaming multimedia. *Office of the Vice-President, Academic, University of Lethbridge*, November 4, Lethbridge, Alberta, Canada.
- Jesshope, C. R. (1999). Web-based teaching: Tools and experience. *Australasian Computer Society Conference*, January 21, Auckland, NZ.
- Jones, G. (1999). Assessing the effectiveness of accutane treatment for fibrodysplasia ossificans progressiva. *Biostatistics Workshop, Clinical Trials Unit*, December 4, University of Auckland, Auckland, NZ.
- Jones, G. (1999). Multivariate survival analysis with doubly-censored data. *New Zealand Statistical Association Conference*, July 6, Wellington, NZ.
- Jones, G. (1999). Multivariate survival analysis with doubly-censored data: Assessment of accutane treatment for fibrodysplasia ossificans progressiva. *Division of Statistics, University of California, Davis*, January 28, Davis, California, USA.
- Kemp, R. H. (1999). A generic graph model for case-based tutoring. *9th International Conference on Artificial Intelligence in Education*, July 20, Le Mais, France.
- Kemp, E. (1999). Moving across to the object-oriented paradigm. *Australasian Computer Society Conference*, January 18, Auckland, NZ.
- Kemp, R. H. (1999). Towards a unified specification of device-instructor-learner interactions. *9th International Conference on Artificial Intelligence in Education*, July 21, Le Mais, France.
- Lai, C. (1999). Relative ageing for two parallel systems and related problems. *First Western Pacific and Third Australia-Japan Workshop on Stochastic Models in Engineering, Technology and Management*, September 24, Christchurch, NZ.
- Lyons, P. (1999). ACCOMPANIST (Adaptable Computer-Controlled Output of a MIDI Prerecorded Accompaniment, Not In Strict Time) and TRAINEE (This Rendition of ACCOMPANIST Is Not Entirely Evolved). *First Iteration*, December 1, Melbourne, Vic., Australia.
- Lyons, P. (1999). Estimating clock speeds for the ATMSWITCH architecture. *Networks 3*, January 22, Hamilton, NZ.
- Lyons, P. (1999). Programming in several dimensions. *Soft Vis 99*, December 3, Sydney, NSW, Australia.
- Lyons, P. (1999). Visualising music for performance flexibility. *Soft Vis 99*, December 4, Sydney, NSW, Australia.
- Noble, A. (1999). Small area estimation. *New Zealand Statistical Association 50th Anniversary Conference*, July 6, Wellington, NZ.
- Page, W. H. (1999). Embedded systems: Trends, personal perspectives and the future. *Department of Electronics and Communication Systems, Singapore Polytechnic*, August 8, Singapore.
- Page, W. H. (1999). Trends, personal perspectives and the future. *First New Zealand Embedded Systems Conference*, July 12, Auckland, NZ.
- Scogings, C., & Phillips, C. (1999). Modelling tasks and dialogue with Lean Cuisine+. *ACM SIGCHI Conference*, May 16, Pittsburg, Pennsylvania, USA.
- Stirling, D. (1999). Java web browsers and the teaching of statistics. *Department of Statistics, Waikato University*, June 3, Hamilton, NZ.
- Wood, G. R. (1999). Analysis of risk at signalised intersections. *New Zealand Statistical Association 50th Anniversary Conference*, July 7, Wellington, NZ.
- Wood, G. R. (1999). Estimation of the Lipschitz constant of a function. *Australian Mathematical Society*, July 14, Melbourne, Vic., Australia.

Wood, G. R. (1999). Global optimisation applied to molecular architecture. "Global Optimization 99" (GO 99), September 29, Florence, Italy.

14. Extension Activity

- Browne, R. F. (1999). (Workshop). Image Analysis. *AgResearch*, October 20, Hamilton, NZ.
- Demidenko, S. (Co-chair). (1999). (Conference). SPIE Conference on Design, Characterisation and Packaging for MEMS and Microelectronics. *International Society for Optical Engineering*, October 27-29, Royal Pines Resort, Qld, Australia.
- Jesshope, C., & Gehne, R. (1999). (Software exhibition). Audiograph Software. *CASCON 1999*, November 8-11, Mississauga, Ontario, Canada.
- Jesshope, C., & Gehne, R. (1999). (Software exhibition). Audiograph Software. *RUFIS '99: The Virtual University*, October 21-24, Flagstaff, Arizona, USA.
- Jesshope, C., & Gehne, R. (1999). (Workshop). Tools for synchronous and asynchronous learning. *RUFIS '99: The Virtual University*, October 21, Flagstaff, Arizona, USA.
- Jones, G. (1999). (Short course). Time series forecasting using leading indicators. *Telecom New Zealand*, September 30, Wellington, NZ.
- Phillips, C. H. E., Kemp, E., Lyons, P., & Moretti, G. (1999). (Seminar). GUI design seminar. *Technology New Zealand*, April 13-14, Wellington, NZ.
- Phillips, C. H. E., Kemp, E., Lyons, P., & Moretti, G. (1999). (Seminar). GUI design seminar. *Technology New Zealand*, June 1-2, Christchurch, NZ.

15. Addresses to Community Organisations

- Bebbington, M. S. (1999). Earthquakes: Prediction and forecasting: The difference. *Awapuni Rotary Club*, June 8, Palmerston North, NZ.
- Ganesh, S. (1999). The data mining revolution: Responding to new opportunities with technology. *Manawatu Mathematics Teachers Association*, October 20, Palmerston North, NZ.
- Giffin, J. W. (1999). Decisions, decisions: What is operations research? *Manawatu Mathematics Teachers Association*, October 20, Palmerston North, NZ.
- Wood, G. R. (1999). Fifteen minutes of fantasy. *Manawatu Mathematics Teachers Association*, October 20, Palmerston North, NZ.

16. Professional Consultancy

- Arnold, G. C. (1999). Projections of school populations within census mesh blocks. *Ministry of Education*, September 15.
- Haslett, S. J. (1999). A reply to Gambino's "An epidemiological note on verification bias implications for estimation of rates". *Department of Internal Affairs*, June.
- Haslett, S. J. (1999). Statistical appraisal of survey of supermarket prices. *Consumers' Institute*, October.
- Hedderley, D. (1999). Assessment of survey of supermarket prices. *Consumers' Institute*, October.
- Hedderley, D. (1999). Calculation of small area population estimates. *Ministry of Education*, October.
- Hedderley, D. (1999). Investigation of calibration between TNT and ELISA tests of vaccine concentration. *Schering-Plough Animal Health Ltd*, June.
- Hedderley, D. (1999). Relationship between TNT and ELISA potency test results for tetanus and sordelliit vaccines. *Schering-Plough Animal Health Ltd*, August.
- Wood, G. R. (1999). Confidence interval statistics/graphs for crash prediction models. *Beca, Carter, Hollings and Ferner*.
- Wood, G. R. (1999). Continuous quality improvement in higher education. *Thai-Australia Science and Engineering Assistance Project (TASEAP)*, March.
- Wood, G. R. (1999). Goodness of fit and confidence intervals. *Beca, Carter, Hollings and Ferner*.
- Wood, G. R. (1999). Review of existing procedures and requirements for goodness of fit for the Turner Equations. *Beca, Carter, Hollings and Ferner*.

Institute of Molecular Biosciences

1. Refereed Journal Paper/Article

- Abernethy, G. A., & McManus, M. T. (1999). Tissue-specific changes in the pattern of ubiquitin conjugation of leaf proteins in *Festuca novae-zelandiae* in response to a water deficit. *Journal of Plant Physiology*, *154*, 404-407.
- Alley, M. R., Ionas, G., & Clarke, J. K. (1999). Chronic non-progressive pneumonia of sheep in New Zealand: A review of the role of *Mycoplasma ovipneumoniae*. *New Zealand Veterinary Journal*, *47*, 155-160.
- Bewley, M. C., Jeffrey, P. D., Patchett, M. L., Kanyo, Z. F., & Baker, E. N. (1999, April). Crystal structures of *Bacillus caldovelox* arginase in complex with substrate and inhibitors reveal new insights into activation, inhibition and catalysis in the arginase superfamily. *Structure*, *7*, 435-448.
- Braggins, J. E., Large, M. F., & Maberley, D. J. (1999). Sexual arrangements in kohekohe (*Dysoxylum spectabile*, Meliaceae). *Telopea*, *8*(3), 315-324.
- Bromham, L., Phillips, M. J., & Penny, D. (1999). Growing up with dinosaurs: Molecular dates and the mammalian radiation. *Trends in Ecology & Evolution*, *14*(3), 113-118.
- Brown, T. J., Donaghy, M. J., Keys, E. A., Ionas, G., Learmonth, J. J., McLenachan, P. A., & Clarke, J. K. (1999). The viability of *Giardia intestinalis* and *Giardia muris* cysts in seawater. *International Journal of Environmental Health Research*, *9*, 157-161.
- Clarke, S. F., McKenzie, M. J., Burritt, D. J., Guy, P. L., & Jameson, P. E. (1999, June). Influence of white clover mosaic potyvirus infection on the endogenous cytokinin content of bean. *Plant Physiology*, *120*, 547-552.
- Clemens, J., Cameron, E. A., & Funt, R. C. (1999). Challenges for calla growers in the unsubsidised New Zealand export market. *HortTechnology*, *9*(3), 478-482.
- Clemens, J., & Morton, R. H. (1999). Optimising mineral nutrition for flower production in *Heliconia* 'Golden Torch' using response surface methodology. *Journal of the American Society for Horticultural Science*, *124*(6), 713-718.
- Clemens, J., Henriod, R. E., Bailey, D. G., & Jameson, P. E. (1999). Vegetative phase change in *Metrosideros*: Shoot and root restriction. *Plant Growth Regulation*, *28*, 207-214.
- Day, C. L., Dupont, C., Lackmann, M., Vaux, D. L., & Hinds, M. G. (1999). Solution structure and mutagenesis of the caspase recruitment domain (CARD) from Apaf-1. *Cell Death and Differentiation*, *6*, 1125-1132.
- Fitzsimmons, H., Henry, R., & Scott, M. (1999). Development of an insulated reporter system to search for cis-acting DNA sequences required for dosage compensation in *Drosophila*. *Genetica*, *105*, 215-226.
- Foster, T., Yamaguchi, J., Wong, B. C., Veit, B., & Hake, S. (1999, July). *Gnarley1* is a dominant mutation in the *knox4* homeobox gene affecting cell shape and identity. *The Plant Cell*, *11*, 1239-1252.
- Foster, T., Veit, B., & Hake, S. (1999). Mosaic analysis of the dominant mutant, *Gnarley1-R*, reveals distinct lateral and transverse signaling pathways during maize leaf development. *Development*, *126*, 305-313.
- François, F., & Grimes, M. L. (1999). Phosphorylation-dependent Akt cleavage in neural cell in vitro reconstitution of apoptosis. *Journal of Neurochemistry*, *73*, 1773-1776.
- Gordon, I. L. (1999). Quantitative genetics of intraspecies hybrids. *Heredity*, *83*, 757-764.
- Hinds, M. G., Norton, R. S., Vaux, D. L., & Day, C. L. (1999). Solution structure of a baculoviral inhibitor of apoptosis (IAP) repeat. *Nature Structural Biology*, *6*(7), 648-651.
- Hunter, D. A., Watson, L. M., & McManus, M. T. (1999). Cell wall proteins in white clover: Influence of plant phosphate status. *Plant Physiology and Biochemistry*, *37*(1), 25-32.
- Hunter, D. A., & McManus, M. T. (1999). Comparison of acid phosphatases in two genotypes of white clover with different responses to applied phosphate. *Journal of Plant Nutrition*, *22*(4-5), 679-692.
- Hunter, D. A., Yoo, S. D., Butcher, S. M., & McManus, M. T. (1999, May). Expression of 1-aminocyclopropane-1-carboxylate oxidase during leaf ontogeny in white clover. *Plant Physiology*, *120*, 131-141.
- Hurr, K. A., Lockhart, P. J., Henan, P. B., & Penny, D. (1999). Evidence for the recent dispersal of *Sophora* (Leguminosae) around the southern oceans: Molecular data. *Journal of Biogeography*, *26*, 565-577.

- Lockhart, P. J., Howe, C. J., Barbrook, A. C., Larkum, A. W. D., & Penny, D. (1999). Spectral analysis, systematic bias, and the evolution of chloroplasts. *Molecular Biology and Evolution*, 16(4), 573-576.
- Lott, J. S., Wild, J. I., Carne, A., Evans, N., & Findlay, J. B. C. (1999). The ordered visual transduction complex of the squid photoreceptor membrane. *Molecular Neurobiology*, 20(1), 61-80.
- Manderson, G. A., Creamer, L. K., Hardman, M. J. (1999). Effect of heat treatment on the circular dichroism spectra of bovine β -lactoglobulin A, B, and C. *Journal of Agricultural and Food Chemistry*, 47(11), 4557-4567.
- McManus, M. T., Burgess, E. P. J., Philip, B., Watson, L. M., Laing, W. A., Voisey, C. R., & White, D. W. R. (1999). Expression of the soybean (Kunitz) trypsin inhibitor in transgenic tobacco: Effects on feeding larvae of *Spodoptera litura*. *Transgenic Research*, 8, 383-395.
- Moon, C. D., Tapper, B. A., & Scott, B. (1999). Identification of Epichloë endophytes in planta by a microsatellite-based PCR fingerprinting assay with automated analysis. *Applied and Environmental Microbiology*, 65(3), 1268-1279.
- Nicolson, K., Evans, G. B., & O'Toole, P. W. (1999). Potentiation of methicillin activity against methicillin-resistant *Staphylococcus aureus* by diterpenes. *FEMS Microbiology Letters*, 179, 233-239.
- Penny, D., Hasagawa, M., Waddell, P. J., & Hendy, M. D. (1999). Mammalian evolution: Timing and implications from using the logdeterminant transform for proteins of differing amino acid composition. *Systematic Biology*, 48(1), 76-93.
- Penny, D., & Poole, A. (1999). The nature of the last universal common ancestor. *Current Opinion in Genetics & Development*, 9, 672-676.
- Poole, A., Jeffares, D., & Penny, D. (1999). Early evolution: Prokaryotes, the new kids on the block. *BioEssays*, 21, 880-889.
- Porwollik, S., Noonan, B., & O'Toole, P. W. (1999). Molecular characterisation of a flagellar export locus of *Helicobacter pylori*. *Infection and Immunity*, 67(5), 2060-2070.
- Qin, B. Y., Bewley, M. C., Creamer, L. K., Baker, E. N., & Jameson, G. B. (1999). Functional implications of structural differences between variants A and B of bovine β -lactoglobulin. *Protein Science*, 8, 75-83.
- Real, D., & Gordon, I. L. (1999, September). Standard errors of heritabilities for forage breeding nurseries. *Biometrics*, 55, 891-895.
- Rowland, R. E., & Nickless, E. M. (1999, March). Confocal microscopy elucidates chromosome behaviour and gene activity. *Asia/Pacific Microscopy and Analysis*, 5-7.
- Rowland, R. E., & Harding, K. M. (1999). Increased sister chromatid exchange in the peripheral blood lymphocytes of young women who smoke cigarettes. *Hereditas*, 131, 143-146.
- Schmid, J., Herd, S., Hunter, P. R., Cannon, R. D., Yasin, M. S. M., Samad, S., Carr, M., Parr, D., McKinney, W., Schousboe, M., Harris, B., Ikram, R., Harris, M., Restrepo, A., Hoyos, G., & Singh, K. P. (1999). Evidence for a general-purpose genotype in *Candida albicans*, highly prevalent in multiple geographical regions, patient types and types of infection. *Microbiology*, 145, 2405-2413.
- Schmid, J., & Christensen, M. J. (1999). Ryegrass endophyte: Host/fungus interaction. *Grassland Research and Practice Series*, 7, 101-106.
- Scott, B., Young, C., & McMillan, L. (1999). Molecular biology of Epichloë endophyte toxin biosynthesis. *Grassland Research and Practice Series*, 7, 77-83.
- Stubbs, H. J., Brasch, D. J., Emerson, G. W., & Sullivan, P. A. (1999). Hydrolase and transferase activities of the β -1,3-exoglucanase of *Candida albicans*. *European Journal of Biochemistry*, 263, 889-895.
- Sun, X.-L., Baker, H. M., Shewry, S. C., Jameson, G. B., & Baker, E. N. (1999). Structure of recombinant human lactoferrin expressed in *Aspergillus awamori*. *Acta Crystallographica*, D55, 403-407.
- Waddell, P. J., Cao, Y., Hasegawa, M., & Mindell, D. P. (1999). Assessing the creataceous superordinal divergence times within birds and placental mammals by using whole mitochondrial protein sequences and an extended statistical framework. *Systematic Biology*, 48(1), 119-137.
- Waddell, P. J., Okada, N., & Hasegawa, M. (1999). Towards resolving the interordinal relationships of placental mammals. *Systematic Biology*, 48(1), 1-5.
- Waddell, P. J., Cao, Y., Hauf, J., & Hasagawa, M. (1999). Using novel phylogenetic methods to evaluate mammalian mtDNA, including amino acid-invariant sites-logdet plus site stripping, to detect internal conflicts in the data, with special reference to the positions of hedgehog, armadillo, and elephant. *Systematic Biology*, 48(1), 31-53.

- Wibowo, Y., Wibowo, J., & Farley, P. C. (1999). Isolation and characterisation of auxotrophic mutants of *Rhizopus oryzae*. *Cytobios*, *100*, 95-99.
- Winkworth, R. C., Robertson, A. W., Ehrendorfer, F. J., & Lockhart, P. J. (1999). The importance of dispersal and recent speciation in the flora of New Zealand. *Journal of Biogeography*, *26*, 1323-1325.
- Woolf, A. B., Plummer, J. A., & Clemens, J. (1999). Maturity and temperature influence ethylene-promoted organ abscission in *Camellia*. *New Zealand Journal of Crop and Horticultural Science*, *27*, 33-41.
- Wu, J., Samaranyake, L. P., Leung, W. K., Sullivan, P. A. (1999). Inhibition of growth and secreted aspartyl proteinase production in *Candida albicans* by lysozyme. *Journal of Medical Microbiology*, *48*, 721-730.

4. Chapter in a Book

- McManus, M. T., Hunter, D. A., Yoo, S. D., & Gong, D. (1999). ACC oxidase expression and leaf ontogeny in white clover. In A. K. Kanellis (Ed.), *Biology and Biotechnology of the plant hormone ethylene II* (pp. 165-172). Dordrecht, Netherlands: Kluwer Academic.

5. Refereed Paper in Conference/Meeting/Symposia Proceedings

- Real, D., Gordon, I. L., & Hodgson, J. (1999). Assessment of grazing procedures in the evaluation of plant breeding material. In J. G. Buchanan-Smith, L. D. Bailey, & P. McCaughey (Eds.), *Proceedings of the XVIII International Grasslands Congress [CD-ROM]*, June 8-17, 1997, Winnipeg, Manitoba, and Saskatoon, Saskatchewan, Canada. Calgary, Alberta, Canada: Association Management Centre.

6. Non-refereed Journal Paper/Article

- Andrew, I. G. (1999). First record of the European Orbweb spider, *Meta segmentata*, in New Zealand. *The Weta*, *21*(2), 7-10.
- Berridge, M., & Grimes, M. L. (1999, December/January). Labour offers new hope for science. *New Zealand Laboratory News*, 6.
- Rowland, R. E. (1999). Microscopy is a valuable technology. *Microscopy in Focus*, *6*, 1-2.
- Stowell, K., Brown, R., James, D., Couchman, K., Hodges, M., & Pollock, N. (1999). Malignant hyperthermia in New Zealand. *NZ Bioscience*, *7*(2), 12-17.

7. Non-refereed Paper in Conference/Meeting/Symposia Proceedings

- Clemens, J., Jameson, P. E., Henriod, R. E. (1999). Phase change in micropropagated clones of *Metrosideros*. In J. A. Charity (Ed.), *Conference proceedings of the 13th Biennial Meeting of the New Zealand Branch of the International Association for Plant Tissue Culture* (Forest Research Bulletin No. 213, p. 31), February 7-11, Rotorua, NZ. Rotorua, NZ: New Zealand Forest Research Institute.
- Gordon, I. L., & Cross, R. J. (1999). GE interaction in wheat germinability. In *8th International Symposium on Pre-Harvest Sprouting in Cereals* (pp. 224-233), June 2-6, 1998, Detmold, Germany. Detmold, Germany: Association of Cereal Research.
- Sismilich, M., Clemens, J., & Jameson, P. E. (1999). *Metrosideros excelsa* seedlings, micropropagated plantlets and mature plants differ in ¹³C at three temperature treatments. In J. A. Charity (Ed.), *Conference proceedings of the 13th Biennial Meeting of the New Zealand Branch of the International Association for Plant Tissue Culture* (Forest Research Bulletin No. 213, p. 32), February 7-11, Rotorua, NZ. Rotorua, NZ: New Zealand Forest Research Institute.
- Taylor, C., Long, P., & Bradshaw, R. E. (1999). 1998 survey shows camellia flower blight widespread in New Zealand. In *52nd New Zealand Plant Protection Conference* (pp. 25-28), August 10-12, Auckland, NZ. Lincoln, NZ: Manaaki Whenua Press. Available: <http://www.hortnet.co.nz/publications/nzpps/proceedings/99/99nzpps.htm>
- Zhang, H., Morgen, K., Reynolds, P. H. S., Jameson, P. E. (1999). Changes in automony and gene expression during in vitro rejuvenation of *Pinus radiata*. In J. A. Charity (Ed.), *Conference proceedings of the 13th Biennial Meeting of the New Zealand Branch of the International Association for Plant Tissue Culture*(Forest Research Bulletin No. 213, p. 29), February 7-11, Rotorua, NZ. Rotorua, NZ: New Zealand Forest Research Institute.

9. Other Publications

- Brown, T. J., Ionas, G., Learmonth, J. J., Keys, E. A., McLenachan, P. A., Hunt, C. L., & Kwan, E. (1999). *Gastro-intestinal protozoa research and services: Report for the New Zealand Ministry of Health Protozoa Research Unit, June 1998-June 1999*. Palmerston North, NZ: Massey University.
- Clemens, J. (1999, July). Putting flowers on New Zealand shrubs. *Commercial Horticulture*, 14-15.
- Collins, L., Moulton, V., & Penny, D. (1999). *RNA secondary structure as an identification tool in the identification of putative pRNA sequences in the chloroplast of green plant species* (Report No 3/1999). Sundsvall, Sweden: Mid Sweden University, Department of Mathematics.
- Ionas, G., Brown, T. J., Learmonth, J. J., & Hunt, C. L. (1999). *Gastro-intestinal research and services: Review of the Massey University/New Zealand Ministry of Health Protozoa Research Unit, 1990-1999*. Palmerston North, NZ: Massey University.
- Ionas, G., Brown, T. J., Learmonth, J. J., & Hunt, C. L. (1999, October). *State of the art research techniques used in the analysis of environmental isolates of Giardia cysts and Cryptosporidium oocysts: Report for the New Zealand Ministry of Health*. Palmerston North, NZ: Massey University.
- Penny, D. (1999, January 16). Making life simple. *New Scientist*, 34-37.
- Penny, D. (1999). (Editorial). Research is more vital than ever. *NZ Science Review*, 56(3), 44.
- Pilone, G., & Liu, S. (1999). (Electronic seminar). *Arginine metabolism in lactic acid bacteria and its significance*. Stockholm, Sweden: UNESCO Microbial Resources Centre.

13. Addresses to Professional Bodies

- Al Samarrai, T., Zhang, N., Lamont, I., Kolbe, J., Wilsher, M., Morris, A. J., Schmid, J. (1999). A fast, highly discriminating method for computer-assisted typing of *Pseudomonas aeruginosa*. *New Zealand Microbiological Society Conference*, November 23-26, Dunedin, NZ.
- Allen, K. A., Isaacs, R. J., & Stowell, K. M. (1999). The biochemical basis of resistance of breast tumour cells to common chemotherapeutic agents. *10th Annual Meeting DNA Topoisomerases in Therapy*, October 5-8, Amsterdam, Netherlands.
- Alvarez, N., Jeffares, D., Gillman, C., & Veit, B. (1999). A mutation in maize, terminal ear 1, increases rate of leaf initiation and shortens internode lengths. *New Zealand Institute of Agricultural Science and the New Zealand Society for Horticultural Science Annual Convention*, June 30-July 2, Massey University, Albany, NZ.
- Andrew, I. G. (1999). Dipteran biodiversity in Manawatu forest and garden habitats. *New Zealand Entomological Society Annual Conference*, April 5-9, Christchurch, NZ.
- Andrew, I. G., Fenemor, D. R., & McKee, J. W. A. (1999). Structural features of a rhamnogalacturonan I. *New Zealand Institute of Chemistry Conference*, November 21-24, Wellington, NZ.
- Chamley, D., Pollock, N., Stowell, K., & Brown, R. (1999). Malignant hyperthermia in infancy and identification of a novel RYRI mutation. *International Workshop on Malignant Hyperthermia*, August 23-28, Copenhagen, Denmark.
- Christeller, J. T., Farley, P. C., Sullivan, P. A., & Laing, W. A. (1999). An aspartic proteinase inhibitor from squash phloem exudate. *2nd International Conference on Proteinase Inhibitors*, December 3-6, University of Florida Brain Institute, Gainesville, Florida, USA.
- Clemens, J. (1999). Exciting export potential for native pohutukawa. *New Zealand Nursery and Garden Industry Association*, July 20, Wellington, NZ.
- Clemens, J. (1999). Floral development in pohutukawa. *New Zealand Plants and their Story*, Royal New Zealand Institute of Horticulture, October 3, Wellington, NZ.
- Clemens, J. (1999). Phase change in micropropagated clones of *Metrosideros*. *Biennial Meeting of the New Zealand Branch of the International Association for Plant Tissue Culture*, February 7-11, Rotorua, NZ.
- Cridland, S. L., Kitson, K. E., Tweedie, J. W., Davis, S. R., & Lee, J. (1999). Effects of cellular transport and gamma-glutamyl transpeptidase activity on protein synthesis in mammary sheep acini. *15th Biennial Gordon Research Conference on Mammary Gland Biology*, June 6-11, New England College, Henneker, New Hampshire, USA.
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- Scott, B. (1999). The Human Genome Project. *Wellington Branch of the Royal Society of New Zealand*, October 27, Wellington, NZ.
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- Sullivan, P. A., Farley, P. C., Christeller, J. T., & Laing, W. A. (1999). Sqapi: A novel aspartic proteinase inhibitor. *VIII International Aspartic Proteinase Conference*, September 7-12, Madiera Island, Portugal.
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- Veit, B. (1999). Genetic analysis of morphogenesis in maize. *Graduate School of Agriculture and Life Sciences, University of Tokyo*, October 23, Tokyo, Japan.
- Veit, B. (1999). Genetic and molecular analysis of plant architecture. *School of Biotechnology and Institute of Agricultural Technology, Suranaree University of Technology*, October 27, Suranaree University of Technology, Thailand.
- Veit, B. (1999). Molecular genetic analysis of leaf initiation. *Department of Botany, Kyoto University*, April 26, Kyoto, Japan.
- Veit, B. (1999). Molecular genetic analysis of leaf initiation. *Institute of Molecular Sciences, University of Tokyo*, April 22, Tokyo, Japan.
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- Young, C. A. (1999). Biosynthetic needles in a genomic haystack. *Gruissem Laboratory*, February 18, University of California, Berkeley, California, USA.
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14. Extension Activity

- Bradshaw, R. E., Scott, D. B., & Scott, M. (1999). (Workshop). 14th Annual DNA Technology Workshop. *Massey University*, August 30-September 3, Palmerston North, NZ.
- Bradshaw, R. E., Scott, D. B., & McManus, M. T. (1999). (Workshop). Public gene technology. *Massey University*, July 10, Palmerston North, NZ.

Honey, N. K. (1999). (Genetics laboratory class). Siemens Science Experience. *Massey University*, June 30, Palmerston North, NZ.

15. Addresses to Community Organisations

- Jameson, P. E. (1999). Genetic engineering. *Manawaku Nurses Group*, May 12, Palmerston North, NZ.
- Jameson, P. E. (1999). Genetic engineering of plants. *MidCity Probus Club*, September 7, Palmerston North, NZ.
- Jameson, P. E. (1999). Genetic engineering of plants. *New Zealand First Party Convention*, July 17, Auckland, NZ.
- Jameson, P. E. (1999). Genetic engineering of plants. *Riverside Fellowship*, September 2, Palmerston North, NZ.
- Jameson, P. E. (1999). Genetic engineering of plants: Environmental issues. *Royal Forest and Bird Society*, September 14, Palmerston North, NZ.
- Jameson, P. E. (1999). Genetic modification of plants: Food for thought. *Palmerston North Coffee Club*, May 26, Palmerston North, NZ.
- Jameson, P. E. (1999). Gene modification programmes: Should we be concerned? *Manawatu Tree Trust*, May 20, Palmerston North, NZ.
- Jameson, P. E. (1999). Issues relating to genetic engineering of food crops. *EcoNation*, May 5, Massey University, Palmerston North, NZ.
- Jameson, P. E. (1999). Issues relating to genetic engineering of plants. *Public Forum*, *Waiupu Health Council*, December 1, Masterton, NZ.
- Jameson, P. E. (1999). Regulation of genetic engineering in New Zealand and the public's right to know. *Public Forum*, April 13, Palmerston North, NZ.
- Scott, B. (1999). DNA technology workshop. DNA technology and animals: Methods, applications and issues. *Public Workshop*, August 30-September 3, Massey University, Palmerston North, NZ.
- Scott, B. (1999). DNA technology workshop. Prokaryotic gene structure and regulation. *Public Workshop*, August 30-September 3, Massey University, Palmerston North, NZ.
- Scott, B. (1999). An introduction to gene technology: Legislation, risk assessment and ethics. *Public Forum*, July 10, Massey University, Palmerston North, NZ.
- Scott, B. (1999). An introduction to gene technology: Transgenic animals: Techniques, developments and issues. *Public Workshop*, July 10, Massey University, Palmerston North, NZ.
- Scott, B. (1999). Regulation of genetic engineering in New Zealand and the public's right to know. *Public Forum*, April 13, Palmerston North, NZ.
- Sullivan, P.A. (1999). Genetic engineering. *Awapuni Probus Club*, May 17, Palmerston North, NZ.
- Sullivan, P. A. (1999). Genetic engineering. *Probus Club of Manawatu*, July 7, Palmerston North, NZ.
- Telfer, E. (1999). Gene splicing and transformation. *ERMA New Zealand Genetic Engineering Workshop*, June 12-13, Wellington, NZ.

16. Professional Consultancy

- Bradshaw, R. E. (1999). Expert witness in patent dispute. *Patent Attorneys, Baldwin Son and Carey, Christchurch*, July.
- Jameson, P. E. (1999). Genetic engineering issues. *A Producer Board*, March 16.

17. Radio, Television and Newsprint Interviews

- Bradshaw, R. E. (1999, July 4). Gene technology explained [Interview by Kerry Stockwell]. *The Tribune (Palmerston North, NZ)*, 5.
- Bradshaw, R. E. (1999, February). Massey to go after grapevine fungi. *Horticulture News*, 18.
- Brown, T. J. (1999, January 20). Bacteria lab goes commercial. *The Dominion (Wellington, NZ)*.
- Brown, T. J. (1999, January 16). Commercial laboratory opened by English. *The Dominion (Wellington, NZ)*.
- Brown, T. J. (1999). Improvements to testing drinking water for microbial contaminants [Radio interview]. *Radio New Zealand, Eureka!*, February 27.
- Brown, T. J. (1999). Improvements to testing drinking water for microbial contaminants [Radio interview]. *Radio New Zealand, Eureka!*, March 1.
- Brown, T. J. (1999, April 28). LATEs 'the way to go' [Interview by J. Saunders]. *Evening Standard (Palmerston North, NZ)*, 3.
- Brown, T. J. (1999, April). MicroAquaTech lab opened. *Massey Alumni Magazine*, 6.

- Brown, T. J. (1999, April 23). NZ tap water standards high says expert. *Timaru Herald*.
- Brown, T. J. (1999, April 21). NZ tap water standards high says expert. *Westport News*.
- Brown, T. J. (1999, July 31). River discharges 'more reliable' [Interview by J. Saunders]. *Evening Standard (Palmerston North, NZ)*, 1.
- Brown, T. J. (1999). Scientists and science students used to be respected in our country [Radio interview] *Sunday Supplement*, May 2.
- Brown, T. J. (1999, January). Testing the water... [Interview by W. Smith]. *Evening Standard (Palmerston North, NZ)*.
- Brown, T. J. (1999, April 20). Water filter ads 'misleading public' [Interview by J. Saunders]. *Evening Standard (Palmerston North, NZ)*.
- Brown, T. J. (1999, April 21). Water filter ads 'misleading public' [Interview by J. Saunders]. *Marlborough Express*
- Brown, T. J. (1999, April 16). Water quality experts hone skills at Massey [Interview by J. Saunders]. *Evening Standard (Palmerston North, NZ)*.
- Christie, C. B. (1999, November). How will biodiversity strategy affect you?. *Horticulture News*.
- Christie, C. B. (1999, May 20). Massey tests misting chambers as soil-free growing medium. *Daily News (New Plymouth, NZ)*.
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- Matthew, C. (1999). Dinamica de macollos en cubiertas pastoreadas [Tiller dynamics in grazed pastures]. *Universidad Nacional de Mar del Plata*, August 30, Balcarce, Argentina.
- Matthew, C. (1999). Las plantas de gramíneas y leguminosas que son y como funcionan? [Plants of ryegrass and white clover: What are they and how do they work?]. *Universidad Nacional de Mar del Plata*, September 1, Balcarce, Argentina.
- Matthew, C. (1999). Tillering in grass swards. *Lecture for Senior Students, Melbourne University*, May 4, Melbourne, Vic., Australia.
- Neall V. E., Lecointre J. A., & Hodgson, K. A. (1999). Towards understanding lahar-triggering mechanisms at Ruapehu. *IUGG XXII General Assembly, Symposium JSP 23*, July 26-30, Birmingham, UK.
- Rauniyar, G. P. (1999). Findings of passenger awareness survey. *Ministry of Agriculture and Forestry*, September 9, Wellington, NZ.
- Rauniyar, G. P. (1999). Methodological challenges in rural development evaluation research in developing countries. *43rd Annual Conference of the Australian Agricultural & Resource Economics Society* January 21, Christchurch, NZ.
- Rauniyar, G. P. (1999). Rural development research at Massey University. *Brawijaya University*, October 5, Malang, Indonesia.
- Robertson, A. W. (1999). Male allocation and paternity in *Mimulus guttatus*: The effects of pollen number, pollen vigour and pollinator selection on plant fitness. *Ecological Society of America Meeting*, August 8-12, Spokane, Washington, USA.
- Robertson, A., Nicholls, V., & Brandon, A. (1999). Sexual promiscuity in our flora?: Getting quantitative information on New Zealand plant-pollinator systems. *New Zealand Botany at the end of the Millenium: A celebration of Eric Godley's Contribution*, June 16-18, Lincoln University, Lincoln, NZ.
- Sarre, S. (1999). How do tuatara determine their sex? *Genetics Society of Australia*, July 14-16, Brisbane, Qld, Australia.
- Sarre, S. (1999). The molecular ecology of tuatara. *Society of Molecular Biology and Evolution*, July 11-14, Brisbane, Qld, Australia.

- Sarre, S. (1999). Predicting the response of a lizard to forest fragmentation. *8th Biennial Conference, Society for Research on Amphibians and Reptiles in New Zealand*, February 5-7, Great Barrier Island, NZ.
- Springett, B. P., Alexander, R. R., Holland, J., & Raeburn, E. (1999). The value of the wallabies in New Zealand. *Ecological Society of Australia Conference*, September 29-October 2, Fremantle, WA, Australia.
- Taylor, C. H., & Long, P. G. (1999). Screening for resistance to Camellia flower blight. In *Proceedings of the Fifty Second New Zealand Plant Protection Conference*, August 10-12, Auckland, NZ.
- Vignana Singham, V., & Long, P.G. (1999). Confocal microscopy of fungal hyphae in plant tissue. In *Proceedings of the Fifty Second New Zealand Plant Protection Society*, August 10-12, Auckland, NZ.
- Zimmermann, E. M., & Death, R. G. (1999). The effect of stability and canopy cover on invertebrate communities in Taranaki plain streams. *New Zealand Limnological Society Conference*, November 29-December 2, Taupo, NZ.

14. Extension Activity

- Barrett, P. (1999). (Seminar). Ecology of the recently introduced Eucalyptus defoliator, *Trachymela catenata*. *Ecology Group, Institute of Natural Resources, Massey University*, May 19, Palmerston North, NZ.
- Bassett, S. (1999). (Seminar). Green eggs and pickled kiwi: An aid to conservation? *Ecology Group, Institute of Natural Resources, Massey University*, April 21, Palmerston North, NZ.
- Bassett, S. M., & Potter, M. A. (1999). (Incubation Workshop). Kiwi embryo mortality and current kiwi research. *Conservation Management Group Incorporated*, February 27-28, Lower Hutt, NZ.
- Bleakley, C. (1999). (Seminar). Using weta box dynamics to assess population size. *Ecology Group, Institute of Natural Resources, Massey University*, May 5, Palmerston North, NZ.
- Brandon, A. (1999). (Seminar). Population size and local density effects in reproductive performance in natural populations of *Myosotis*. *Ecology Group, Institute of Natural Resources, Massey University*, July 28, Palmerston North, NZ.
- Cameron, E. A. (Organiser). (1999). Minami-Kyushu University Tour. *Minami-Kyushu University*, January 18-29, North Island, NZ.
- Cameron, E. A., & Morriss, S. D. (1999). (Address). Technology transfer. *Monbusho International Scientific Research Programs: Cooperative research by the University of Tokyo, Massey University and Seoul National University*, February 10, Massey University, Palmerston North, NZ.
- Chapman, J. (1999). (Seminar). Genetic markers to determine possum dispersal in Tb buffer zones. *Ecology Group, Institute of Natural Resources, Massey University*, August 25, Palmerston North, NZ.
- Davidson, R. (1999). (Seminar). The impact of an aerial poison drop on the Mokoia Island saddleback populations. *Ecology Group, Institute of Natural Resources, Massey University*, September 8, Palmerston North, NZ.
- Death, R. (1999). (Seminar). Where the streams are greener: Productivity gradients in benthic stream invertebrate diversity of the intermountain west of America. *Ecology Group, Institute of Natural Resources, Massey University*, August 11, Palmerston North, NZ.
- Dimond, W. (1999). (Seminar). Costs of translocations to source populations. *Ecology Group, Institute of Natural Resources, Massey University*, August 25, Palmerston North, NZ.
- Flannagan, H. (1999). (Seminar). Closer geckological relations on Mana Island. *Ecology Group, Institute of Natural Resources, Massey University*, May 12, Palmerston North, NZ.
- Fowler, R. (1999). (Seminar). When the rivers run dry: Spatial and temporal variation in benthic and hyporheic communities of New Zealand gravel bed rivers. *Ecology Group, Institute of Natural Resources, Massey University*, May 5, Palmerston North, NZ.
- Gardner, J. (Judge). (1999). National Bank/Central Districts Farmer of the Year. *National Bank*, March 23-24, 30, Manawatu-Rangitikei District, NZ.
- Gardner, J. (Organiser). (1999). Visit by Professor Paul Webster. *Wye College, University of London*, December 15-16, Massey University, Palmerston North, NZ.
- Gray, D. I. (Convenor/Judge). (1999). Kiwi Farmer of the Year regional final. *Kiwi Dairy Company*, March 3-4, Coastal Taranaki, NZ.
- Horton, P. (1999). (Seminar). Direct and indirect impacts of 1080 on rodents, mustelids and kiwi. *Ecology Group, Institute of Natural Resources, Massey University*, May 5, Palmerston North, NZ.

- Husheer, S. (1999). (Seminar). Impact of sika deer on beech forest vegetation (PhD proposal). *Ecology Group, Institute of Natural Resources, Massey University*, July 21, Palmerston North, NZ.
- Jenkins, C. (1999). (Seminar). Determining the olfactory ability of North Island brown kiwi. *Ecology Group, Institute of Natural Resources, Massey University*, September 8, Palmerston North, NZ.
- Keedwell, R. (1999). (Seminar). Developing tools for managing the braided rivers of the Upper Waitaki Basin. *Ecology Group, Institute of Natural Resources, Massey University*, June 2, Palmerston North, NZ.
- Kidd, J. (Advisor). (1999). Training and resource information days. *CCS Horticultural Training Programme*, July 30, Palmerston North, NZ.
- Kuiper, D. (1999). Agricultural extension in New Zealand. *Croatian Officials*, January 28, Massey University, Palmerston North, NZ.
- Lecointre, J. A. (1999). Contribution to the Majors Promotion Function for Science and Information Sciences students. *College of Sciences, Massey University*, September 15, Palmerston North, NZ.
- Lecointre, J. A. (1999). Contribution to the "New Horizons in Science, Technology & Engineering". *College of Sciences, Massey University*, August, New Plymouth, NZ.
- Lecointre, J. A. (1999). Visit of French agricultural scientists, dairy farmers and local/regional officials. *Pastures and Crops Group, Institute of Natural Resources, Massey University*, November 22-24, Palmerston North, NZ.
- Lentle, R. (1999). (Seminar). Jaw action and molar progression in macropods. *Ecology Group, Institute of Natural Resources, Massey University*, August 4, Palmerston North, NZ.
- McBreen, K. (1999). (Seminar). Kamahi decline in Tongariro National Park. *Ecology Group, Institute of Natural Resources, Massey University*, March 31, Palmerston North, NZ.
- Palmer, J. A., & Wallace, C. (1999). (Curriculum-based hands-on education programmes in earth science). Understanding the geology of the Manawatu. *Massey University*, June, Science Centre & Manawatu Museum, and Manawatu Art Gallery, Palmerston North, NZ.
- Rapson, J. (1999). (Workshop). Bryophytes for beginners. *Ecology Group, Institute of Natural Resources, Massey University*, December 9, Palmerston North, NZ.
- Rapson, J. (1999). (Workshop). 15th John Child Bryophyte Workshop. *Ecology Group, Institute of Natural Resources, Massey University*, December 10-15, Inglewood, NZ.
- Rauniyar, G. P. (1999). (Address). International perspective. *Monbusho International Scientific Research Programs: Cooperative research by The University of Tokyo, Massey University and Seoul National University*, February 10, Massey University, Palmerston North, NZ.
- Rauniyar, G. P. (1999). (Address). Sustainable horticulture in land constrained developing countries. *Monbusho International Scientific Research Programs: Cooperative research by The University of Tokyo, Massey University and Seoul National University*, September 29, Suwon, Korea.
- Reid, J. (1999). (Workshop). Farmer perceptions and decision making. *Fertiliser & Lime Research Centre*, June 23, Massey University, Palmerston North, NZ.
- Roesch, H. (1999). (Seminar). Environmental enhancement for big cats. *Ecology Group, Institute of Natural Resources, Massey University*, March 10, Palmerston North, NZ.
- Schnitzler, R. (1999). (Seminar). Revision and biogeography of *Zorion* endemic to New Zealand and Chatham Islands. *Ecology Group, Institute of Natural Resources, Massey University*, August 25, Palmerston North, NZ.
- Standish, R. (1999). (Seminar). The weed that ate the forest: Impacts of *Tradescantia* on community and ecosystem processes. *Ecology Group, Institute of Natural Resources, Massey University*, March 17, Palmerston North, NZ.
- Stephenson, B. (1999). (Seminar). Investigating population changes of the Australasian gannet in New Zealand. *Ecology Group, Institute of Natural Resources, Massey University*, August 18, Palmerston North, NZ.
- Waghorn, T. (1999). (Seminar). *Heliothis* (tomato fruit worm) in New Zealand. *Ecology Group, Institute of Natural Resources, Massey University*, May 26, Palmerston North, NZ.
- Wells, A. (1999). (Seminar). Biological aspects of water quality in the Taranaki ring plain. *Ecology Group, Institute of Natural Resources, Massey University*, March 10, Palmerston North, NZ.
- Winkworth, R. (1999). (Seminar). Dispersal and rapid morphological evolution in New Zealand *Myosotis*. *Ecology Group, Institute of Natural Resources, Massey University*, September 29, Palmerston North, NZ.

Zimmerman, E. (1999). (Seminar). Grazer periphyton interactions in Taranaki ring plain streams: The interaction between canopy cover and stability. *Ecology Group, Institute of Natural Resources, Massey University*, March 10, Palmerston North, NZ.

15. Addresses to Community Organisations

- Lecointre, J. A. (1999). Volcanoes on stamps. *Manawatu Philatelic Society*, June 2, Palmerston North, NZ.
- Moore, G. (1999). Bats use of Kinleith Forest and the implications of forestry practices. *Carter Holt Harvey Forests Consultative Group*, March 23.
- Robertson, A. W. (1999). Native bird declines and the reproduction of New Zealand's flora: Have mutualisms been disrupted? *EcoQuest Students*, October, Firth of Thames, NZ.
- Sarre, S. (1999). A molecular investigation of possum mating patterns: Are there implications for biological control? *Workshop on the Biocontrol of Possums*, April 13-15, Wallaceville, Upper Hutt, NZ.

16. Professional Consultancy

- Cameron, E. A., McKenna, M., & Reid, J. I. (1999). Encouraging sustainable fruit production: Surveying sustainability. *Hawkes Bay Focus Group Programme*, June 1.
- Morriss, S. D., Cameron, E. A., Kemp, E., & Stiefel, H. (1999). Technology transfer methods to accelerate adoption of the ENZA integrated fruit production: Pipfruit standards (IFP-P). *ENZA New Zealand*, December.
- Rauniyar, G. P., Winton, A. S. W., Whyte, C. F., & Cheyne, J. (1999). Assessment of the effectiveness of border strategies at modifying aircraft passenger behaviour. *Ministry of Agriculture and Forestry (MAF Policy)*, August.

17. Radio, Television and Newsprint Interviews

- Kidd, J., & Pachana, N. (1999). Massey University benefits of gardening study [Television interview by G. Bray]. *TVI, The Breakfast Show*, July 22
- Kidd, J., & Pachana, N. (1999, April 14). Researchers cultivate gardeners [Interview by J. Morgan]. *The Dominion*, 8.
- Moore, G. (1999, September 10). Student is going 'batty' [Interview by A. Radford]. *South Waikato News*.
- Morriss, S. D. (1999, June 17). Agricultural sector takes in more than just producers. *Wanganui Chronicle*.
- Morriss, S. D. (1999, June 19). Businesses make most of field days. *Evening Standard (Palmerston North, NZ)*.
- Morriss, S. D. (1999). Dairy industry leader first distinguished fellow of Massey Agriculture. *Massey News*, (25), 3.
- Morriss, S. D. (1999). Field days showcase agriculture to nation. *Massey News*, (20), 8.
- Morriss, S. D. (1999, June 16). Group formed to give Massey an edge. *Marlborough Express*.
- Morriss, S. D. (1999, June 22). Group looks to positive future for industries. *The Chronicle*.
- Morriss, S. D. (1999). Massey Agriculture: Looking toward the future. *Massey News*, (18), 3.
- Morriss, S. D. (1999, June 14). Massey amasses know-how. *New Zealand Herald*.
- Morriss, S. D. (1999, June 17). Massey forms umbrella group. *Northern Advocate (Whangarei, NZ)*.
- Morriss, S. D. (1999, June 14). Massey shows leadership. *New Zealand Herald*.
- Morriss, S. D. (1999). Massey University is setting up a brand called Massey Agriculture to give leadership in the industry [Radio interview]. *Radio New Zealand, Rural Report*, June 11.
- Morriss, S. D. (1999, June 28). Massey's new agricultural focus. *Rural News*.
- Morriss, S. D. (1999, June 15). New Massey group covers wide range. [Interview by K. McTamney]. *Evening Standard (Palmerston North, NZ)*.
- Morriss, S. D. (1999, July 7). Umbrella group focus is 'on the land'. *Gisborne Herald*.
- Morriss, S. D. (1999, June 14). Uni sets up "feel-good" body. *Ashburton Guardian*.

Institute of Technology and Engineering

1. Refereed Journal Paper/Article

- Abbas, S. G., Choudhary, M. A., & Wall, G. L. (1999). Managing technology change: Zero tillage in Pakistan. *Agricultural Mechanization in Asia, Africa and Latin America*, 30(4), 12-15.
- Aslam, T., Choudhary, M. A., & Saggar, S. (1999). Tillage impacts on soil microbial biomass C, N and P, earthworms and agronomy after two years of cropping following permanent pasture in New Zealand. *Soil & Tillage Research*, 51(1-2), 103-111.
- Dong, W., Xu, W. L., & Huo, W. (1999). Trajectory tracking control of dynamic non-holonomic systems with unknown dynamics. *International Journal of Robust and Nonlinear Control*, 9, 905-922.
- Fleming, M. E., Studman, C. J., Ganesh, S., & Phipps, R. A. (1999). Daylight versus electric light: The role of phosphor technology. *Lighting: Art and Science for International Designers*, 19(2), 12-16.
- Guo, L. B., & Sims, R. E. H. (1999). Litter decomposition and nutrient release via litter decomposition in New Zealand eucalypt short rotation forests. *Agriculture, Ecosystems & Environment*, 75(1-2), 133-140.
- Guo, L. B., & Sims, R. E. H. (1999). Litter production and nutrient return in New Zealand eucalypt short-rotation forests: Implications for land management. *Agriculture, Ecosystems & Environment*, 73, 93-100.
- Guo, P., Choudhary, M. A., & Rahman, A. (1999). Tillage induced changes in a silt loam soil under continuous cropping: I, Soil physical properties. *Agricultural Engineering Journal*, 8(3), 149-159.
- Guo, P., Choudhary, M. A., & Rahman, A. (1999). Tillage induced changes in a silt loam soil under continuous cropping: II, Soil erosion and infiltrability under simulated rainfall. *Agricultural Engineering Journal*, 8(3), 161-174.
- Houston, D., & Rees, M. (1999). Developing a quality management system for a postgraduate education programme: A case study. *Journal of Higher Education Policy and Management*, 21(2), 227-238.
- Inui, N., Kakuno, H., Tretyakov, A. Y., Komatsu, G., & Kameoka, K. (1999). Critical behavior of a random diode network. *Physical Review E*, 59(6), 6513-6516.
- Leangon, S., Maddox, I. S., & Brooks, J. D. (1999). Influence of the glycolytic rate on production of citric acid and oxalic acid by *Aspergillus niger* in solid state fermentation. *World Journal of Microbiology & Biotechnology*, 15, 493-495.
- Lu, C., Vere-Jones, D., Takayasu, H., Tretyakov, A. Y., & Takayasu, M. (1999). Spatio-temporal seismicity in an elastic block lattice model. *Fractals*, 7(3), 301-311.
- Mann, R., Adebajo, O., & Kehoe, D. (1999). An assessment of management systems and business performance in the UK food and drinks industry. *British Food Journal*, 101(1), 5-21.
- Mann, R., Adebajo, O., & Kehoe, D. (1999). Best practices in the food and drinks industry. *British Food Journal*, 101(3), 238-253.
- Milliken, P., Marsh, C., & van Brunt, B. (1999). Minimax controller design for a class of uncertain linear systems. *Automatica*, 35, 583-590.
- Nguyen, H. X., Opara, L. U., & To, L. V. (1999). Hot water treatment affects fruit mass loss and incidence of postharvest diseases and disorders in 'Buoi' Mango (*Mangifera indica* Linn). *Journal of South Pacific Agriculture*, 5(2 (1998)), 13-18.
- Opara, L. U. (1999). A methodology for selecting machinery ownership systems for mechanisation of rural farms. *Agricultural Engineering Journal*, 8(2), 77-90.
- Phipps, R. A., Sisk, W. E., & Wall, G. L. (1999). A comparison of two studies reporting the prevalence of sick building syndrome in New Zealand and England. *New Zealand Medical Journal*, 112(1090), 228-230.
- Senelwa, K., & Sims, R. E. H. (1999). Fuel characteristics of short rotation forest biomass. *Biomass and Energy*, 17, 127-140.
- Senelwa, K., & Sims, R. E. H. (1999). Opportunities for small scale biomass-electricity systems in Kenya. *Biomass and Energy*, 17, 239-255.
- Sims, R. E. H., Senelwa, K., Maiava, T., & Bullock, B. T. (1999). *Eucalyptus* species for biomass energy in New Zealand - Part I: Growth screening trials at first harvest. *Biomass and Bioenergy*, 16, 199-205.
- Sims, R. E. H., Senelwa, K., Maiava T., & Bullock, B. T. (1999). *Eucalyptus* species for biomass energy in New Zealand - Part II: Coppice performance. *Biomass and Bioenergy*, 17, 333-343.

- Thompson, F. B., Robertson, T. R., & Cleland, A. C. (1999). Modelling the heat transfer resistance of corrugated paperboard. *New Zealand Food Journal*, 29(3), 94-97.
- Thuy, N. X., Choudhary, M. A., & Hampton, J. G. (1999). The effects of high drying temperature and tempering on development of stress cracks and germination of maize seed (*Zea mays* L.). *Seed Science and Technology*, 27, 507-515.
- Tretyakov, A., Chen, Z., Takayasu, H., & Nakasato, N. (1999). Analysis of spontaneous magnetoencephalography data by similarity measures. *Physica A*, 270, 543-551.
- White, S. D. (1999). A novel solvent separation process with integrated open-cycle absorption refrigeration. *Applied Thermal Engineering*, 19, 337-347.
- Xu, W. L., & Han, L. (1999). Piezoelectric actuator based active error compensation of precision machining. *Measurement Science & Technology*, 10(2), 106-111.
- Xu, W. L., & Ma, B. L. (1999). Polynomial motion of non-holonomic mechanical systems of chained form. *Mathematical Methods in the Applied Sciences*, 22, 1153-1173.
- Xu, W. L., & Tso, S. K. (1999). Sensor-based fuzzy reactive navigation of a mobile robot through local target switching. *IEEE Transactions on Systems, Man, and Cybernetics, Part C, Applications and Reviews*, 29(3), 451-459.
- Yule, I. J., Kohnen, G., & Nowak, M. (1999). A tractor performance monitor. *Computers and Electronics in Agriculture*, 23, 155-174.

2. Book Authored by Staff Member

- Adebanjo, D., & Mann, R. S. (1999). *Performance measurement guide*. Leatherhead, UK: Leatherhead International.

3. Book Edited by Staff Member

- Bakker, H. H., & Smith, L. H. (Eds.). (1999). *Projects: Project Papers by the Final-Year Students of the Bachelor of Technology* (No. 8). Palmerston North, NZ: Massey University College of Sciences.
- Bakker-Arkema, F. W., DeBaerdemaeker, J., Amirante, P., Ruiz-Altisent, M., & Studman, C. J. (Eds.). (1999). *CIGR Handbook of Agricultural engineering. Volume IV, Agro-Processing Engineering*. St Joseph, Missouri, USA: American Society of Agricultural Engineers.
- Maddox, I. S. (Assistant ed.). (1999). *World Journal of Microbiology & Biotechnology*. Dordrecht, The Netherlands: Kluwer Academic Publishers in association with UNESCO.
- Opara, L. U., & M. Umar (Eds.). (1999). *Commercial postharvest handling of fruits, vegetables and root crops for export: Proceedings of a Regional Workshop held at the Pacific Royal Hotel, Nukualofa, Kingdom of Tonga, 14-18 October, 1996*. Apia, Samoa: Institute for Research, Extension and Training in Agriculture.

4. Chapter in a Book

- Joseph, J., Raghuram, G., & Sridharan, R. (1999). Pallavan Transport Corporation: A case study. In K. V. Ramani, D. Bhatnagar, B. M. Desai, A. Koshy, S. Morris, & V. Raghunathan (Eds.), *Managing alternatives: Case studies from Vikalpa, the journal for decision makers* (pp. 125-150). New Delhi, India: Rajiv Beri for Macmillan India.
- Opara, L. U. (1999). Cassava storage. In F. W. Bakker-Arkema (Ed.), *CIGR Handbook of Agricultural Engineering* (Vol. 4, pp. 157-182). St Joseph, Michigan, USA: American Society of Agricultural Engineers.
- Opara, L. U. (1999). Storage of edible aroids. In F. W. Bakker-Arkema (Ed.), *CIGR Handbook of Agricultural Engineering* (Vol. 4, pp. 214-241). St Joseph, Michigan, USA: American Society of Agricultural Engineers.
- Opara, L. U. (1999). Yam storage. In F. W. Bakker-Arkema (Ed.), *CIGR Handbook of Agricultural Engineering* (Vol. 4, pp. 182-214). St Joseph, Michigan, USA: American Society of Agricultural Engineers.
- Opara, L. U., & Geyer, M. (1999). Onion storage. In F. W. Bakker-Arkema (Ed.), *CIGR Handbook of Agricultural Engineering* (Vol. 4, pp. 125-156). St Joseph, Michigan, USA: American Society of Agricultural Engineers.
- Parker D., & Phipps, R. A. (1999). Section 5.019: Sick building syndrome. In *CCH Manual of Workplace Health Hazards* (Rev. ed., pp. 12,101-12,104). Auckland, NZ: CCH.

- Studman, C. J. (1999). Fruit and vegetable postharvest systems in the tropics. In F. W. Bakker-Arkema (Ed.), *CIGR Handbook of Agricultural Engineering* (Vol. 4, pp. 380-394). St Joseph, Michigan, USA: American Society of Agricultural Engineers.
- Studman, C. J. (1999). Fruit and vegetable quality. In F. W. Bakker-Arkema (Ed.), *CIGR Agricultural Engineering Handbook* (Vol. 4, pp. 243-274). St Joseph, Michigan USA: American Society of Agricultural Engineers.
- Studman, C. J. (1999). Handling systems and packaging. In F. W. Bakker-Arkema (Ed.), *CIGR Handbook of Agricultural Engineering* (Vol. 4, pp. 291-340). St Joseph, Michigan, USA: American Society of Agricultural Engineers.

5. Refereed Paper in Conference/Meeting/Symposia Proceedings

- Butler, K. (1999). Heavy metal recovery from waste sludges using bioleaching: Modelling the growth of sulfur oxidising organisms. In *Third Annual Australian Environmental Engineering Research Event* [CD-ROM], November 23-26, Castlemaine, Vic., Australia. Melbourne, Vic., Australia: EERE Organising Team.
- Chen, Z., Takayasu, H., Takayasu, M., Tretyakov, A., Nakasato, N., Kanno, A., Hatanaka, K., & Yoshimoto, T. (1999). Spatio-temporal behaviour of the alpha rhythm sources. In *International Workshop for Soft Computing in Industry '99* (pp. 92-97), June 16-18, Muroran, Japan. Muroran, Japan: Muroran Institute of Technology.
- Choudhary, M. A. (1999). Tillage induced changes in agricultural non-point source pollution. In I. Gunn (Ed.), *Australasian Environmental Engineering Conference* (pp. 59-63), July 11-13, Auckland, NZ. Wellington, NZ: Institution of Professional Engineers New Zealand.
- Ellwood, B. N., & Mason, I. G. (1999). Nitrification of farm dairy wastewater using a sequencing batch reactor. In I. Gunn (Ed.), *Australasian Environmental Engineering Conference 1999* (pp. 95-100), July 11-13, Auckland, NZ. Wellington, NZ: Institution of Professional Engineers New Zealand.
- Fleming, M. E., Phipps, R. A., Studman, C. J., & Ganesh, S. (1999). Associations between health symptoms, environmental satisfaction and self-assessed productivity: Preliminary results from an interventional study of fluorescent light flicker, health and productivity in office personnel. In *Indoor Air '99: Proceedings of the 8th International Conference on Indoor Air Quality and Climate* (Vol. 1, pp. 100-104), August 8-13, Edinburgh, UK. London, UK: Construction Research Communications.
- Fleming, M. E., Studman, C. J., Ganesh, S., & Phipps, R. A. (1999). Modulation and flicker frequency effects on data entry personnel. In *IESNA Annual Conference Technical Papers* (pp. 477-483), August 9-11, New Orleans, Louisiana, USA. New York, USA: Illuminating Engineering Society of North America.
- Han, J. D., Xu, W. L., & Wang, Y. C. (1999). Contact transition control incorporating acceleration feedback damping. In *Canadian Conference on Electrical and Computer Engineering* (pp. 1362-1367), May 9-12, Edmonton, Alberta, Canada. Edison, New Jersey, USA: Institute of Electrical and Electronic Engineers.
- Han, J. D., Wang, Y. C., Qui, Z. C., & Xu, W. L. (1999). Discontinuous control of harmonic drive system with the dampering enhancement of acceleration feedback. In *Canadian Conference on Electrical and Computer Engineering* (pp. 867-873), May 9-12, Edmonton, Alberta, Canada. Edison, New Jersey, USA: Institute of Electrical and Electronic Engineers.
- Han, J. D., Wang, Y. C., & Xu, W. L. (1999). Experimental investigation into contact transition control with joint acceleration feedback damping. In *IEEE International Conference on Robotics and Automation* (pp. 251-256), May 10-15, Detroit, Michigan, USA. Edison, New Jersey, USA: Institute of Electrical and Electronic Engineers.
- Haverkamp, R. G. (1999). Eliminating anode effects. In C. E. Eckert (Ed.), *Light Metals 1999* (pp. 285-288), February 28-March 4, San Diego, California, USA. Warrendale, Pennsylvania, USA: TMS.
- Ma, C., Brooks, J., Engelbrecht, J., Maddox, I., & Trinh, T. K. (1999). Structural variability of milk fouling layers in a tubular heat exchanger. In *CHEMECA 99* [CD-ROM], September 26-29, Newcastle, NSW, Australia. Newcastle, NSW, Australia: CHEMECA.
- Maddox, I. S., Steiner, E., Hirsch, S., Wessner, S., Schuster, K. C., Gutierrez, N. A., & Gapes, J. R. (1999). The cause of "acid crash" during the acetone-butanol-ethanol fermentation process. In *5th Asia-Pacific Biochemical Engineering Conference* [CD-ROM], November 15-18, Phuket, Thailand. Bangkok, Thailand: Thailand Biotechnology Society.

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8. Book Review

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9. Other Publications

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11. Software

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13. Addresses to Professional Bodies

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Foote, J. L., Houston, D. J., & North, N. H. (1999). Towards a systemic understanding of a hospital waiting list. *17th International Conference of the System Dynamics Society and 5th Australian & New Zealand Systems Conference*, July 20-23, Wellington, NZ.

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- Opara, L. U. (1999). Workshop on conservation tillage: A viable option for sustainable agriculture in Eurasia. *International Workshop*, September 20-24, Shortandy, Astana, Republic of Kazakhstan.
- Shekar, A., & Jolley, S. (1999). Product development for schools. *Professional Development of Teachers*, September 11, Palmerston North, NZ.
- Shekar, A. (1999). Product development practice. *Presentation to Teachers*, December 1, Palmerston North, NZ.
- Shilton, A. (1999). Pond hydraulics research at Massey University New Zealand *Department of Civil Engineering, University of Aalborg*, June 4, Aalborg, Denmark.
- Shilton, A. (1999). Pond hydraulics research, putting your head in the box! *Department of Civil Engineering, University of Newcastle*, May 12, Newcastle, NSW, Australia.
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- Yu, P. L., & Litani, J. (1999). Effect of antimicrobial peptides from the milk iron-binding protein lactoferrin on the food pathogen *Escherichia coli* 0157:H7. *International Union of Microbiological Societies Congress*, August 16-20, Sydney, New South Wales, Australia.

14. Extension Activity

- Loo, E. L., & Davies, R. J. (1999). (Seminar). Project management. *New Zealand Dairy Research Institute*, June 21-23, Palmerston North, NZ.
- Marsh, C., & Bakker, H. (1999). (Seminar). Process operation and control. *Various companies*, June 14-15, Christchurch, NZ.
- Marsh, C., & Bakker, H. (1999). (Seminar). Process operation and control. *Various companies*, June 17-18, Hamilton, NZ.
- Sims, R. E. H. (1999). (El Bassam International Science and Technology Linkages). Integrated and sustainable food and energy systems in the agriculture sector to reduce GHG emissions. *Royal Society of New Zealand*, February 15-16, Braunschweig, Germany.
- Sims, R. E. H. (1999). (Seminar). Renewable energy research showcase to discuss present and future research funding through FRST. *FRST Energy SPO*, November 17, Palmerston North, NZ.
- Sims, R. E. H. (1999). ("Techno" display). Sustainable energy teaching and research at Massey University. *Sweetwaters Festival*, January 22-26, Auckland, NZ.
- Wall, G. (1999). (Assistance). Curriculum development. *Hango Agricultural College*, July 8-10, 'Eua, Tonga.
- Wall, G. (1999). (Short course). Farm water systems. *Humes Pipes*, December 2-3, Massey University, Palmerston North, NZ.
- Wall, G. (1999). (Short course). Strategic planning. *Education Office of the Free Wesleyan Church*, July 6-7, Nuku 'Alofa, Tonga.

15. Addresses to Community Organisations

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9. Other Publications

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- Ethell, M. T., Bennett, R. A., Brown, M. P., Merritt, K., Davidson, J., & Tran, T. (1999). Comparative elution of antibiotics from polymethylmethacrylate and hydroxyapatite cement. *Proceedings of the Ninth Annual American College of Veterinary Surgeons Symposium*, September 30-October 3, San Francisco, California, USA. Maryland, USA: American College of Veterinary Surgeons.
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- Ethell, M. (1999). First aid measures for some equine emergencies. *Taranaki Branch of the New Zealand Veterinary Association*, May 4, Eltham, NZ.
- Fenwick, S., Boxall, N., Bennett, J., & Nicol, C. (1999). *Salmonella brandenburg*: A woolly problem. *Microbiology Beyond 2000: New Zealand Microbiological Society Conference*, November 23-26, Dunedin, NZ.
- Fenwick, S. G. (1999). Veterinary work in a developing country. *Huntermville Veterinary Club Annual General Meeting*, September 22, Huntermville, NZ.
- Firth, E. C. (1999). Effects of racetrack exercise on density of New Zealand thoroughbred third metacarpal and carpal bone as determined by computed tomography. *1st International Workshop on Musculoskeletal Interactions*, May 26, Santorini, Greece.
- Firth, E. C. (1999). Osteochondrosis in large animals. *8th Scientific Meeting of the European College of Veterinary Surgeons*, July 2-4, Brugge, Belgium.
- Garrick, D. J. (1999). Beef cattle breeding objectives. *Workshop of International Scientists, Massey University*, February 22-23, Palmerston North, NZ.
- Garrick, D. J. (1999). Biogenic models for animal improvement. *Animal Sciences Department, Colorado State University*, September 23, Fort Collins, Colorado, USA.
- Garrick, D. J. (1999). The effects of some payment systems on the values of Jersey and some novel milks. *Jersey New Zealand Industry Committee*, July 27, Hamilton, NZ.
- Garrick, D. J. (1999). The future for the New Zealand Society of Animal Production. *59th Conference of the New Zealand Society of Animal Production*, June 28, Mosgiel, NZ.
- Garrick, D. J. (1999). Potential for economic benefits to the producer from altering the composition of milk. *Milk Composition Occasional Conference, British Society of Animal Science*, September 16, Belfast, Northern Ireland.
- Gee, E. K. (1999). The change in liver copper concentration of 10 thoroughbred foals from birth to 5 months of age. *38th British Equine Veterinary Association Congress*, September 12-15, Harrogate, UK.
- Girling, J. E., Bennett, E. J., & Cockrem, J. F. (1999). Hormonal stimulation of breeding in birds: Dose response to PMSG over 7 days and comparisons of hormone delivery by injection or pump. *Fifth International Congress of Comparative Physiology and Biochemistry*, August 23-28, Calgary, Alberta, Canada.
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- Guilford, W. G. (1999). Diagnostic approach to chronic diarrhoea. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1, Wellington, NZ.
- Guilford, W. G. (1999). Diagnostic approach to chronic vomiting. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1-2, Wellington, NZ.
- Guilford, W. G. (1999). Diagnostic approach to liver diseases. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 2, Wellington, NZ.
- Guilford, W. G. (1999). Feeding the food sensitive patient. *North American Veterinary Conference*, January 11, Orlando, Florida, USA.
- Guilford, W. G. (1999). Feeding the healthy dog. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 2, Wellington, NZ.
- Guilford, W. G. (1999). Feline nutrition update. *Annual Seminar of the Companion Animal Society, New Zealand Veterinary Association*, June 29, Nelson, NZ.
- Guilford, W. G. (1999). Frontiers in gastroenterology diagnosis. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 2, Wellington, NZ.
- Guilford, W. G. (1999). Gastrointestinal obstruction: Diagnosis and medical management. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1, Wellington, NZ.
- Guilford, W. G. (1999). Intractable canine inflammatory bowel disease. *North American Veterinary Conference*, January 12, Orlando, Florida, USA.
- Guilford, W. G. (1999). Intractable inflammatory bowel disease. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1, Wellington, NZ.
- Guilford, W. G. (1999). Irritable bowel syndrome. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1, Wellington, NZ.
- Guilford, W. G. (1999). Management of liver disease. *4th International Veterinary Internal Medicine Conference*, April 18, University of Chile, Santiago, Chile.
- Guilford, W. G. (1999). Management of liver diseases. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 2, Wellington, NZ.
- Guilford, W. G. (1999). Medical management of gastric dilatation - volvulus. *4th International Veterinary Internal Medicine Conference*, April 16, University of Chile, Santiago, Chile.
- Guilford, W. G. (1999). Medical management of gastrointestinal tract diseases. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 2, Wellington, NZ.
- Guilford, W. G. (1999). Motility disorders of the gastrointestinal tract. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1, Wellington, NZ.
- Guilford, W. G. (1999). New diagnostic methods of gastroenterology. *4th International Veterinary Internal Medicine Conference*, April 16, University of Chile, Santiago, Chile.
- Guilford, W. G. (1999). Novel dietary proteins in the management of food allergy. *North American Veterinary Conference*, January 11, Orlando, Florida, USA.
- Guilford, W. G. (1999). Nutritional management of gastrointestinal tract diseases. *4th International Veterinary Internal Medicine Conference*, April 18, University of Chile, Santiago, Chile.
- Guilford, W. G. (1999). Nutritional management of gastrointestinal tract diseases. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 2, Wellington, NZ.
- Guilford, W. G. (1999). Radiopaque markers for gastrointestinal diagnosis. *North American Veterinary Conference*, January 12, Orlando, Florida, USA.
- Guilford, W. G. (1999). Symptomatic treatment of acute gastroenteritis. *Veterinary Gastroenterology Seminar, New Zealand Veterinary Association*, May 1, Wellington, NZ.
- Guilford, W. G. (1999). Veterinary endoscopy. *University of Queensland*, August 14-15, Brisbane, Qld, Australia.
- Henare, S. J., & Cockrem, J. F. (1999). Low temperatures and a temperature cycle inhibit gonadal growth in Japanese quail on short days (*coturnix coturnix japonica*). *Research Colloquium 1999, Institute of Veterinary, Animal and Biomedical Sciences*, November 19, Massey University, NZ.
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- Islam, M. Z., Pomroy, W. E., Key, E. L., & Charleston, W. A. G. (1999). A survey of anthelmintic susceptibility in cyathostomine nematodes of horses in New Zealand using a larval development assay. *28th Annual Meeting of the New Zealand Society for Parasitology*, August 30-31, Palmerston North, NZ.
- Jorgensen, L. T., Pomroy, W. E., Charleston, W. A. G., & Leathwick, D. M. (1999). The effect of host on development and infectivity of *T. colubriformis*. *17th International Conference of the World Association for the Advancement of Veterinary Parasitology*, August 15-19, Copenhagen, Denmark.
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- Machon, R. G. (1999). Avian anaesthesia: An introduction. *Veterinary Nursing Association of New Zealand Conference*, July 3, Nelson, NZ.
- Machon, R. G. (1999). Basic cardiopulmonary resuscitation. *Veterinary Nursing Association of New Zealand Conference*, July 3, Nelson, NZ.
- Machon, R. G. (1999). Chilly dogs and cool cats: Anaesthetic-induced hypothermia in small animals. *New Zealand Society of Anaesthetic Technicians Conference*, August 27, Wellington, NZ.
- Machon, R. G. (1999). Inhalational anaesthetic agents and human safety. *1999 Conference, Veterinary Nursing Association of New Zealand*, 1 July 1999, Nelson, New Zealand.
- Machon, R. G. (1999). Injectable techniques in equine anaesthesia. *New Zealand Veterinary Association Equine Branch Conference*, June 30, Nelson, NZ.
- Machon, R. G. (1999). An introduction to general anaesthesia. *Veterinary Nursing Association of New Zealand Conference*, July 1, Nelson, NZ.
- Machon, R. G. (1999). Monitoring the anaesthetized patient: Advanced monitoring techniques. *Veterinary Nursing Association of New Zealand Conference*, July 1, Nelson, NZ.
- Machon, R. G. (1999). Monitoring the anaesthetized patient: Basic monitoring techniques. *Veterinary Nursing Association of New Zealand Conference*, July 1, Nelson, NZ.
- Machon, R. G. (1999). The practice of equine anaesthesia in New Zealand. *New Zealand Veterinary Association Equine Branch Conference*, July 1, Nelson, NZ.
- Machon, R. G. (1999). Recognizing and managing common anaesthetic complications. *Veterinary Nursing Association of New Zealand Conference*, July 3, Nelson, NZ.
- Machon, R. G. (1999). The recovery period: Care for dogs and cats recovering from general anaesthesia. *Veterinary Nursing Association of New Zealand Conference*, July 3, Nelson, NZ.
- Machon, R. G. (1999). Veterinary anaesthesia; Caesarian section in veterinary patients. *Continuing Education Conference of the Australian and New Zealand Anaesthetists*, August 27, Wellington, NZ.
- Matthews, P. N. P. (1999). Beef production from pastures: The way ahead. *Beef New Zealand Executive Council*, November 4, Wellington, NZ.
- Matthews, P. N. P. (1999). Dairy production from pastures: A case study. *French Scientist Group*, November 24, Dannevirke, NZ.
- Matthews, P. N. P. (1999). Dairy production in New Zealand. *Vietnamese Agriculturalists*, December 1, Massey University, Palmerston North, NZ.

- Matthews, P. N. P. (1999). Farming with increased efficiency. *Otorohanga Farmers Group*, October 20, Otorohanga, NZ.
- Matthews, P. N. P. (1999). Grazing management. *French Scientist Group*, November 25, Massey University, Palmerston North, NZ.
- Matthews, P. N. P. (1999). Grazing management: An introduction to sward conditions and pasture targets. *University of Sydney Student Group*, March 26, Massey University, Palmerston North, NZ.
- Matthews, P. N. P. (1999). Grazing management: Are we on the right track? *Livestock Advisory Southern Regional Advisors Group*, September 10, Palmerston North, NZ.
- Matthews, P. N. P. (1999). Grazing management for bull beef production. *Uruguayan Sheep and Beef Agriculturalists*, September 6, Massey University, Palmerston North, NZ.
- Matthews, P. N. P. (1999). Grazing systems: Case farm examples. *Yunnan Animal Husbandry Training Course*, June 22, Xiao Shoa, Yunnan Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). An introduction to the management of pasture based farming systems in New Zealand. *Croatian World Bank Delegation*, January 26, Massey University, Palmerston North, NZ.
- Matthews, P. N. P. (1999). Livestock production from pasture: Basic management principles. *South African Farm Consultant Group*, May 6, Massey University, Palmerston North, NZ.
- Matthews, P. N. P. (1999). Livestock production from pasture: Basic management principles. *Yunnan Animal Husbandry Training Course*, June 20, Xiao Shoa, Yunnan Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). Livestock production from pastures: Basic principles. *Xinjiang Agricultural College*, June 6, Yuli, Xinjiang Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). Livestock production from pastures: Basic principles. *Xinjiang Academy of Science*, June 8, Urumuqi, Xingaiing Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). Livestock production from pasture: The New Zealand and Chinese experience. *Gansu Grassland Ecological Research Institute*, June 10, Lanzhou, Gansu Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). Pasture production and grazing management: An introduction. *Lanzhou Agricultural University*, June 10, Lanzhou, Gansu Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). Sward characteristics to enhance pasture and animal production in pasture based grazing systems. *New Zealand Beef Council*, May 13, Waipukurau, NZ.
- Matthews, P. N. P. (1999). Sward conditions and pasture targets in practice. *University of Sydney Student Group*, March 27, Dannevirke, NZ.
- Matthews, P. N. P. (1999). Understanding grazing systems: An introduction to feed planning. *Yunnan Animal Husbandry Training Course*, June 21, Xiao Shoa, Yunnan Province, Peoples' Republic of China.
- Matthews, P. N. P. (1999). The way ahead: A case farm example. *Livestock Advisory Annual Conference*, October 21, Hamilton, NZ.
- McKenzie, J. (1999). Application of GIS in a decision support system for the management of wildlife-associated TB in New Zealand. *International Course on Spatial Analysis for Veterinary and Medical Epidemiologists*, Royal Veterinary and Agricultural University, August 20, National Agricultural Research Centre, Viborg, Denmark.
- McKenzie, J. (1999). Cluster analysis of TB in cattle using SaTScan. *GIS in Health Workshop for Veterinary and Medical Epidemiologists*, March 21, University of Auckland, Auckland, NZ.
- McKenzie, J. (1999). Modelling TB eradication with PossPOP. *Workshop on Using RTC as an Indicator of the Probability of Eradicating TB from Possum Populations*, Animal Health Board, November 22, Christchurch, NZ.
- McKenzie, J. (1999). Targeting possum control efforts to achieve TB eradication. *Workshop on Using RTC as an Indicator of the Probability of Eradicating TB from Possum Populations*, Animal Health Board, November 22, Christchurch, NZ.
- McKenzie, J. (1999). Turning research results into software products. *Minister of Science and Technology Visit, EpiCentre*, July 15, Massey University, Palmerston North, NZ.
- McLachlan, A. D., Lumsden, J. S., Stowell, J. M., & Murray, A. (1999). A secreted protein antigen of *M. bovis* that is recognised by T-cells from BCG vaccinated cattle. *Research Colloquium 1999*, Institute of Veterinary, Animal and Biomedical Sciences, November 19, Massey University, Palmerston North, NZ.

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- Meers, J., Dunowska, M., Studdert, M. J., & Wilks, C. R. (1999). Equine rhinoviruses in New Zealand. *XIth International Congress of Virology*, August 9-13, Sydney, NSW, Australia.
- Meers, J. (1999). Inhibitory effect of equine herpesvirus-2 infection on monocyte chemoattractant protein-1 mRNA expression in equine leukocytes. *Research Colloquium 1999, Institute of Veterinary, Animal and Biomedical Sciences*, November 19, Massey University, Palmerston North, NZ.
- Minamikawa, M., Hine, P. M., & Lumsden, J. S. (1999). Isolation of two Ca²⁺-dependant sepharose-binding proteins from the flat oyster *Tiostrea chilensis*. *Microbiology Beyond 2000: New Zealand Microbiological Society Conference*, November 23-26, Dunedin, NZ.
- Mogg, T. D. (1999). Appropriate antibiotic therapy *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Mogg, T. D. (1999). Colic: Medical management. *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Mogg, T. D. (1999). Endotoxaemia: Diagnosis and management. *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Mogg, T. D. (1999). Gastrointestinal tract ulceration: Aetiology and management. *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Mogg, T. D. (1999). Head shaking: Diagnosis and management. *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Mogg, T. D. (1999). Small airway disease. *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Mogg, T. D. (1999). Therapeutic drug monitoring in veterinary medicine: State of the Art. *Sixth International Congress of Therapeutic Drug Monitoring and Clinical Toxicology*, September 13-17, Cairns, Queensland, Australia.
- Mogg, T. D. (1999). Therapeutics: Recent advances. *New Zealand Veterinary Association Conference*, June 28-July 3, Nelson, NZ.
- Morris, S. T. (1999). Beef production systems in New Zealand. *Vietnamese Ministry of Agriculture Officials*, December 1, Massey University, Palmerston North, NZ.
- Morris, R. S., Stevenson, M., & Jackson, R. (1999). Interim findings of research on the possible origins of BSE. *Video-Link Conference, British Government Representatives*, October 14, Massey University, Palmerston North, NZ.
- Morris, S. T. (1999). Reproductive efficiency in beef herds. *New Zealand Beef Council*, November 5, Wellington, NZ.
- Morris, R. S. (1999). Solving epidemiology problems in data-sparse situations. *Food and Agriculture Organisation of the United States*, May 25, Rome, Italy.
- Morris, S. T. (1999). Strategies for obtaining research funds. *Widya Mandal Catholic University*, October 14, Surabaya, Indonesia.
- Morris, S. T. (1999). Intensive beef production: Where to in the future. *AgFirst Consultants and Intensive Beef Finishers*, November 29, Massey University, Palmerston North, NZ.
- Olczak, J. (1999). Diagnosis and epidemiology of feline hyperthyroidism: An update. *Annual Seminar of the Companion Animal Society, New Zealand Veterinary Association*, June 1, Nelson, NZ.
- Olczak, J. (1999). History and clinical findings in New Zealand hyperthyroid cats: 125 cases. *26th World Veterinary Congress and 24th World Small Animal Veterinary Congress*, September 23, Lyon, France.
- Oliaro, J., Johnson, R. D., Chen, W., Chadwick, V. S., & Murray, A. (1999). Identification of an immunogenic 18 kDa protein of *Helicobacter pylori* using alkaline phosphatase gene fusions. *Research Colloquium 1999, Institute of Veterinary, Animal and Biomedical Sciences*, November 19, Massey University, Palmerston North, NZ.
- Parton, K. (1999). The effects of intravenous administration of carprofen and DL-lysine acetyl salicylate in healthy cats. *Institute of Veterinary, Animal and Biomedical Sciences, Massey University*, December 10, Palmerston North, NZ.
- Parton, K. (1999). Surviving with the basics. A veterinarian's experience on the Navajo Reservation. *Institute of Veterinary, Animal and Biomedical Sciences, Massey University*, July 26, Palmerston North, NZ.
- Perkins, N. R. (1999). Causes of wastage in the New Zealand thoroughbred racing industry. *New Zealand Equine Research Foundation Seminar*, June 27, Invercargill, NZ.

- Perkins, N. R. (1999). Causes of wastage in the New Zealand thoroughbred racing industry. *New Zealand Equine Research Foundation Seminar*, July 4, Christchurch, NZ.
- Perkins, N. R. (1999). Causes of wastage in the New Zealand thoroughbred racing industry. *New Zealand Equine Research Foundation Seminar*, July 7, 1999, Palmerston North, NZ.
- Perkins, N. R. (1999). Causes of wastage in the New Zealand thoroughbred racing industry. *New Zealand Equine Research Foundation Seminar*, July 11, Auckland, NZ.
- Perkins, N. R., & Pfeiffer, D. U. (1999). Decision analysis II: Decisions under risk. *New Zealand Veterinary Association Dairy Cattle Branch Annual Meeting*, June 30-July 4, Nelson, NZ.
- Perkins, N. R. (1999). Effect of administration of a GnRH antagonist on gonadotrophin concentrations in long term castrated geldings. *Annual Meeting of the Australian College of Veterinary Scientists*, July 6-10, Sydney, NSW, Australia.
- Perkins, N. R., & Pfeiffer, D. U. (1999). An introduction to decision analysis I: Decision trees. *New Zealand Veterinary Association Dairy Cattle Branch Annual Meeting*, June 30-July 4, Nelson, NZ.
- Perkins, N. R. (1999). Massey equine monitoring system. *Equine Research Open Day, Massey Equine*, March 26, Massey University, Palmerston North, NZ.
- Perkins, N. R. (1999). Wastage in the New Zealand thoroughbred racing industry. *New Zealand Veterinary Association Equine Branch Annual Meeting*, June 30-July 4, Nelson, NZ.
- Pomroy, W. E. (1999). A comparison of the LD50 values in a larval development assay between single and trickle infections with *Trichostrongylus colubriformis*. *17th International Conference of the World Association for the Advancement of Veterinary Parasitology*, August 15-19, Copenhagen, Denmark.
- Pomroy, W. E. (1999). *Oxyspirura* sp. in the eye of a New Zealand kaka (*Necator meridionalis*). *28th Annual Meeting of the New Zealand Society for Parasitology*, August 30-31, Palmerston North, NZ.
- Przemec, S., Scott, I., Khalaf, S., & Simpson, H. V. (1999). Abomasal function of fleeceweight-selected and control, unselected sheep following infection with *Ostertagia circumcincta*. *28th Annual Meeting of the New Zealand Society for Parasitology*, August 30-31, Palmerston North, NZ.
- Rae, J. (1999). *Mycobacterium paratuberculosis* Des gene is interrupted by the insertion element IS900. *Research Colloquium 1999, Institute of Veterinary, Animal and Biomedical Sciences, Massey University*, November 19, Palmerston North, NZ.
- Reichel, M. P., Pomroy, W. E., Pfeiffer, D. U., Williamson, N. B., Conraths, F. J., & Schares, G. (1999). Transmission patterns of *Neospora caninum* in New Zealand dairy cattle. *Australian Society for Parasitology Annual Conference*, September 26-30, Yeppoon, Qld., Australia.
- Ridler, A. (1999). Trace element deficiencies in grazing ruminants. *Short Course, Fertiliser and Lime Research Centre*, June 24, Massey University, Palmerston North, NZ.
- Ridler, A. (1999). Transmission of *Brucella ovis* from rams to stags and between stags. *Research Colloquium 1999, Institute of Veterinary, Animal and Biomedical Sciences, Massey University*, November 19, Palmerston North, NZ.
- Scott, I. (1999). The role of inflammation in the pathogenesis of infection with *Ostertagia circumcincta*. *28th Annual Meeting of the New Zealand Society for Parasitology*, August 30-31, Palmerston North, NZ.
- Scott, I., Khalaf, S., & Simpson, H. V. (1999). Lack of effect of intestinal trichostrongylosis on ovine abomasal function. *28th Annual Meeting of the New Zealand Society for Parasitology Annual*, August 30-31, Palmerston North, NZ.
- Scuffham, A. (1999). Anaesthetic technicians and the Internet. *New Zealand Society of Anaesthetic Technicians Conference*, August 28, Wellington, NZ.
- Scuffham, A. (1999). A survey of anaesthetic equipment in New Zealand veterinary practices. *New Zealand Society of Anaesthetic Technicians Conference*, August 26, Wellington, NZ.
- Simpson, H. V., Scott, I., Simcock, D. C., Reynolds, G. W., & Pomroy, W. E. (1999). Morphological changes induced by adult *Ostertagia circumcincta*. *17th International Conference of the World Association for the Advancement of Veterinary Parasitology*, August 15-19, Copenhagen, Denmark.
- Skinner, S. J. M., Batchelor, D. C., Cockrem, J. F., Vickers, M., & Lewis, R. M. (1999). Abnormal fetal endocrine development in the spontaneously hypertensive rat. *The New Zealand Society of Endocrinology Annual Scientific Meeting*, November 12-13, 1998, Palmerston North, NZ.
- Squires, R. A. (1999). Blood transfusions. *42nd British Small Animal Veterinary Association Congress*, April 8-11, Birmingham, UK.

- Squires, R. A. (1999). Endogenous retroviruses in health and disease: Friends or foes? *Palmerston North Postgraduate Medical Society*, June 15, Palmerston North, NZ.
- Squires, R. A. (1999). Interactive cases: Medical (1). *42nd British Small Animal Veterinary Association Congress*, April 8-11, Birmingham, UK.
- Squires, R. A. (1999). Interactive cases: Medical (2). *42nd British Small Animal Veterinary Association Congress*, April 8-11, Birmingham, UK.
- Squires, R. A. (1999). Immunosuppressant therapy: What's new? *42nd British Small Animal Veterinary Association Congress*, April 8-11, Birmingham, UK.
- Stafford, K. J. (1999). Euthanasia. *Animal Welfare Inspectors Course*, February 13, Palmerston North, NZ.
- Stevenson, M. (1999). New techniques for tracking animal disease epidemics in space and time. *Research Colloquium 1999, Institute of Veterinary, Animal and Biomedical Sciences, Massey University*, November 19, Palmerston North, NZ.
- Stevenson, M. A. (1999). Spatial aspects of food-borne diseases in the United Kingdom. *Conference, GIS and Spatial Analysis Experts*, March 20, Auckland, NZ.
- Sutherland, M. A., Mellor, D. J., Stafford, K. J., Gregory, N. G., Bruce, R. A., Ward, R. N., & Todd, S. E. (1999). Using plasma cortisol concentrations to evaluate strategies to minimise pain-induced distress due to ring castration and tailing in lambs. *42nd Annual Meeting of the Endocrine Society of Australia*, September 26-29, Melbourne, Vic., Australia.
- Thomson, D., Sandall, J. L., & Wilks, C. (1999). Characterisation of an adenovirus in brushtail possums. *XIth International Congress of Virology*, August 9-13, Sydney, NSW, Australia.
- Twentyman, C. M., Alley, M. R., Stockdale, P. H. G., Charleston, W. A. G., & Pomroy, W. (1999). Atoxoplasmosis in the hihi (*Notiomystis cincta*). *28th Annual meeting of the New Zealand Society for Parasitology*, August 30-31, Palmerston North, NZ.
- Twentyman, C. M., Alley, M. R., Stockdale, P. H. G., Charleston, W. A. G., & Pomroy, W. (1999). Atoxoplasmosis in the hihi (*Notiomystis cincta*). *Wildlife Disease Association (Australasian Section) Annual Meeting*, July 4-9, Jervis Bay, NSW, Australia.
- Twentyman, C. M. (1999). Selected wildlife necropsy cases submitted to Massey University during 1999. *Annual Conference of the Wildlife Branch of the New Zealand Veterinary Association*, December 3-5, Paraparaumu, NZ.
- Twentyman, C., Alley, M. R., Sancha, E. & Fraser, I. (1999). Thyroid hyperplasia in black stilts in New Zealand. *Australian Society for Veterinary Pathology Annual Conference*, May 15-16, University of Melbourne, Vic., Australia.
- West, D. M. (1999). Clinical aspects of trace element requirements of grazing ruminants. *Intermediate Course, Fertiliser and Lime Research Centre*, June 24, Massey University, Palmerston North, NZ.
- West, D. M. (1999). Mineral/trace element issues in beef cattle. *AgFirst Consultants and Intensive Beef Finisher Clients*, November 29, Massey University, Palmerston North, NZ.
- West, D. M. (1999). Veterinary management of New Zealand pastoral production systems. *Chinese Delegation*, July 2, Massey University, Palmerston North, NZ.
- Williamson, N. B. (1999). Vertical transmission of *Neospora caninum* in a large dairy herd. *28th Annual Meeting of the New Zealand Society for Parasitology*, August 30-31, Palmerston North, NZ.
- Williamson, N. B. (1999). What we know about *Neospora caninum* in New Zealand. *Landcorp Sharemilkers Conference*, July 8, Palmerston North, NZ.
- Wilson, G. F. (1999). Cation imbalances and animal nutrition. *Fertiliser and Soil Fertility Conference, New Zealand Fertilizer Industry Association*, June 24, Massey University, Palmerston North, NZ.
- Wilson, G. F. (1999). How to ensure cows stay healthy and productive during the transition period. *AGMARDT Project, Agricultural Marketing and Research Development Trust*, May 26-27, Levin, NZ.
- Wilson, P. R. (1999). Current knowledge, deer trace elements. *Trace Element Research Forum, New Zealand Deer Farmers Association*, August 12, Lincoln, NZ.
- Wilson, P. R. (1999). Deer and cattle Tb diagnosis, epidemiology and control. *Cautitlan Campus 25th Jubilee Conference, Universidad Nacional Autónoma de México*, April 9, Queretero, Mexico.
- Wilson, P. R. (1999). Deer mortalities: Surveys, causes and solutions. *New Zealand Deer Farmers Association Conference*, June 11, Napier, NZ.
- Wilson, P. R. (1999). Deer production systems and veterinary involvement. *Royal Veterinary College Undergraduate Seminar*, November 4, London, UK.

- Wilson, P. R. (1999). Deer trace element diagnosis, treatment and control. *Canterbury Deer Farmers Association*, August 12, Greta Valley, North Canterbury, NZ.
- Wilson, P. R. (1999). Deer tuberculosis: Diagnosis, epidemiology and control. *Cautitlan Campus 25th Jubilee Conference*, Universidad Nacional Autónoma de México, April 8, Mexico City, Mexico.
- Wilson, P. R. (1999). Massey University deer research findings. *Veterinary Faculty, University of Guelph*, November 16, Guelph, Ontario, Canada.
- Wilson, P. R. (1999). Massey University recent deer research. *Postgraduate Seminar*, Universidad Nacional Autónoma de México, April 13, Queretero, Mexico.
- Wilson, P. R. (1999). Measuring reproductive profiles on deer herds. *4th International Wildlife Ranching Symposium*, November 10, Toronto, Ontario, Canada.
- Wilson, P. R. (1999). The New Zealand deer industry and its technological development. *Cautitlan Campus 25th Jubilee Conference*, Universidad Nacional Autónoma de México, April 8, Queretero, Mexico.
- Wilson, P. R. (1999). New Zealand deer industry and technological development. *Cautitlan Campus 25th Jubilee Conference*, Universidad Nacional Autónoma de México, April 9, Mexico City, Mexico.
- Wilson, P. R. (1999). Pastures for production and health. *4th International Wildlife Ranching Symposium*, November 11, Toronto, Ontario, Canada.
- Wilson, P. R. (1999). Peri and postnatal losses: Causes and solutions. *New Zealand Deer Farmers Conference*, June 11, Napier, NZ.
- Wilson, P. R. (1999). Peri- and post-natal deer losses. *New Zealand Deer Farmers Association Annual Conference*, June 11, Napier, NZ.
- Wilson, P. R. (1999). Preliminary report of studies of local anaesthesia of the velvet antler. *New Zealand Veterinary Association Deer Branch Conference*, March 4, Hastings, NZ.
- Wilson, P. R. (1999). Recent Massey University deer research findings. *Royal Veterinary College*, November 5, London, UK.
- Wilson, P. R. (1999). Trace element reference values. *4th International Wildlife Ranching Symposium*, November 10, Toronto, Ontario, Canada.
- Wilson, P. R. (1999). Velvet antler analgesia. *New Zealand Veterinary Association Deer Branch Conference*, March 3-5, Hastings, NZ.
- Wilson, P. R. (1999). Yersiniosis: Resistance, susceptibility and vaccination. *New Zealand Veterinary Association Deer Branch Conference*, March 4, Hastings, NZ.

14. Extension Activity

- Firth, E. C. (1999). (Workshop). Waikato taster course. *Waikato Polytechnic*, July 17, Hamilton, NZ.
- Stantiall, J. D. (1999). (Workshop). Calculating financial KPIs. *Centre for Agricultural and Veterinary Continuing Education, Massey University*, June 10, Marton, NZ.
- Stantiall, J. D. (1999). (Exchange forum). Enhancing technology use in the kiwifruit industry. *College of Sciences, Massey University*, June 15-16, Tauranga, NZ.
- Stantiall, J. D., & Holmes, C. W. (1999). (Workshop). Feeding dairy cows. *College of Sciences, Massey University*, April 26-27, Levin, NZ.
- Stantiall, J. D. (1999). (Workshop). Feeding dairy cows. *College of Sciences, Massey University*, July 6-7, Palmerston North, NZ.
- Stantiall, J. D. (1999). (Seminar). Horse management with science. *Institute of Veterinary, Animal and Biomedical Sciences, Massey University*, July 17, Hamilton, NZ.
- Stantiall, J. D. (1999). (Workshop). Managing to add value. *Centre for Agricultural and Veterinary Continuing Education, Massey University*, June 1-3, Masterton, NZ.
- Stantiall, J. D. (1999). Massey Dairy Farmers' Conference. *College of Sciences, Massey University*, May 18-20, Whangarei, NZ.
- Stantiall, J. D., Parker, W. J., & Shadbolt, N. M. (1999). (Workshop). Preferred future: Achieving the preferred future of your farm business through the development of business management skills. *Centre for Agricultural and Veterinary Continuing Education, Massey University*, April 13-14, Marton, NZ.
- Stantiall, J. D. (1999). Riverside Farm Field Day. *Agricultural Services, Massey University*, April 29, Riverside Farm, Wairarapa, NZ.
- Stantiall, J. D. (1999). (Workshop). Seeking to break through barriers. *Wairarapa Deer Group*, November 8, Masterton, NZ.

- Stantiall, J. D. (1999). Southern North Island Sheep and Beef Cattle Farmers' Conference. *College of Sciences, Massey University*, June 22, Palmerston North, NZ.
- Thompson, K. G. (1999). (Presentation). Parasite control and trace element deficiencies in goats. *New Zealand Meat Goat Farmers Association Annual General Meeting*, June 12, Rotorua, NZ.
- Thompson, K. G. (1999). (Presentation). Parasite control options on goat farms. *Mohair Producers Annual General Meeting*, April 24, Nelson, NZ.
- Wilson, G. F. (1999). Cation imbalances and animal nutrition. *Fertiliser and Soil Fertility Management* (pp. Section 9: 1-5), June 22-24, Massey University, NZ. Palmerston North, NZ: Fertilizer & Lime Research Centre, Massey University.
- Wilson, G. F. (1999). Management of the transition cow. *Landcorp Sharemilkers Conference*, July 8, Palmerston North, NZ.

15. Addresses to Community Organisations

- Blair, H. T. (1999). Crossbreds vs Purebreds. *Waipuna Stud Field Day*, October 29, Mangamahu, NZ.
- Blair, H. T. (1999). Genetic technologies and New Zealand. *Hawke's Bay Anglican Rural Clergy*, November 23, Waipukurau, NZ.
- Blair, H. T. (1999). Genetic technologies and New Zealand. *Wairarapa Infometric Seminar*, August 26, Taratahi, NZ.
- Blair, H. T. (1999). New technology and genetic improvement. *DIBO Sheep Genetics*, February 17, Woodville, NZ.
- Blair, H. T. (1999). Opportunities in University Education. *Manawatu High School Students and Parents*, July 21, Palmerston North, NZ.
- Blair, H. T. (1999). Planning for crossbreeding. *Tararua Monitor Farm Community Group*, November 5, Kumeroa, NZ.
- Duignan, P. J. (1999). Marine mammal health in New Zealand. *Levin Lions Club*, March 16, Levin, NZ.
- Duignan, P. J. (1999). Marine mammal research. *Palmerston North Dive Club*, April 22, Palmerston North, NZ.
- Garrick, D. J. (1999). Cattle selection based on economically-relevant traits. *Riverside Farm Open Day*, April 29, Wairarapa, NZ.
- Garrick, D. J. (1999). Feeding, breeding and cross-breeding: High-performance sheep farming. *Poukawa Field Day*, May 6, Hawke's Bay, NZ.
- Garrick, D. J. (1999). Genetic improvement of dairy cattle. *Dairying Research Corporation*, March 11, Hamilton, NZ.
- Garrick, D. J. (1999). Genetic requirements for intensive finishing. *Intensive Beef - Extensive \$\$ Beef Council Field Day*, June 9, Mangaweka, NZ.
- Garrick, D. J. (1999). Improving net farm income. *Gails of Tamahere*, July 28, Waikato, NZ.
- Garrick, D. J. (1999). Profitable bull and cow trait selection. *Mid-Northern Beef Council*, May 25, Waihi-Pukawa, NZ.
- Garrick, D. J. (1999). Profitable sire and dam trait selection. *Beef Council Field Day*, April 13, Marotiri, Western Bays, Taupo, NZ.
- Garrick, D. J. (1999). Report on the workshop on genetic improvement of beef cattle. *Beef Cattle Field Day*, April 16, Gladstone, Wairarapa, NZ.
- Garrick, D. J. (1999). Report on the workshop on genetic improvement of beef cattle. *Te Uku Beef Council Meeting*, June 11, Waikato, NZ.
- Garrick, D. J. (1999). Scientific recommendations on the proposed analysis of survival. *National Animal Evaluation Committee User Group Meeting*, October 12, Newstead, Hamilton, NZ.
- Garrick, D. J. (1999). Strategic planning for the genetic improvement of the Suffolk breed. *Breed Society Representatives*, February 17, Feilding, NZ.
- Garrick, D. J. (1999). A summary of the genetics seminar on beef cattle improvement. *Intensive Beef - Extensive \$\$ Beef Council Field Day*, June 9, Mangaweka, NZ.
- Madie, P. (1999). Deep sea animals. *Russell Street School*, May 3, Palmerston North, NZ.
- Madie, P. (1999). Zoonotic diseases associated with dogs. *Manawatu Kennel Association*, June 22, Palmerston North, NZ.
- Matthews, P. N. P. (1999). The AGMARDT project: A case farm example. *Manawatu Sharemilker of the Year Field Day*, April 22, Feilding, NZ.
- Matthews, P. N. P. (1999). Beef finishing from pasture. *Central North Island Beef Farmers Group*, November 29, Palmerston North, NZ.

- Matthews, P. N. P. (1999). An introduction to dairy production from pastures in New Zealand. *Xinjiang Gold Land Agricultural Development Co.*, January 15, Woodville, NZ.
- Matthews, P. N. P. (1999). Introduction to the AGMARDT project: On farm implications. *Woodville Farm Discussion Group*, March 3, Woodville, NZ.
- Matthews, P. N. P. (1999). Summer management: The AGMARDT example. *DairyTeam Farm Discussion Group*, December 15, Dannevirke, NZ.
- Matthews, P. N. P. (1999). Summer management: The AGMARDT example. *Manawatu Market Milk Group*, December 16, Dannevirke, NZ.
- Matthews, P. N. P. (1999). Training and development opportunities in New Zealand and China. *Xinjiang Gold Land Agricultural Development Co.*, January 15, Massey University, Palmerston North, NZ.
- Mogg, T. D. (1999). Common drug therapies in the horse. *Wellington Area Horse Trials Group*, September 30, Wellington, NZ.
- Mogg, T. D. (1999). Equine medical emergencies. *Wellington Area Horse Trials Group*, August 26, Wellington, NZ.
- Morris, S. T. (1999). The influence of pre-lamb shearing on lamb birthweight and survival. *C. Alma Baker Trust Open Day for Farmers*, February 18, Limestone Downs, Port Waikato, NZ.
- Morris, S. T. (1999). Stratification in the sheep industry. *Open Day for Farmers, Waipuna Farms Ltd.*, October 29, Mangamahu, Wanganui, NZ.
- Parton, K. (1999). Animal husbandry, veterinary care and culture on the Navajo Reservation. *Linton Lions Club*, August 11, Linton, NZ.
- Parton, K. (1999). My veterinary career and experiences on the Navajo Reservation. *St Peter's College*, September 13, Palmerston North, NZ.
- Perkins, N. R. (1999). AI results in horses: What can you expect? *New Zealand Pony Breeders Association Annual Meeting*, June 13, Palmerston North, NZ.
- Perkins, N. R. (1999). Artificial insemination: Concepts and techniques. *New Zealand Pony Breeders Association Annual Meeting*, June 13, Palmerston North, NZ.
- Perkins, N. R. (1999). Blood typing: Introduction and concepts. *New Zealand Pony Breeders Association Annual Meeting*, June 13, Palmerston North, NZ.
- Perkins, N. R. (1999). Horse management with science: Artificial insemination in horses: Chilled and frozen semen. *Waikato Polytechnic Equine Education Centre*, July 17, Hamilton, NZ.
- Perkins, N. R. (1999). Horse management with science: Breeding your mare in the 21st century, *Waikato Polytechnic Equine Education Centre*, July 17, Hamilton, NZ.
- Perkins, N. R. (1999). Stallion semen collection and examination: A demonstration. *New Zealand Pony Breeders Association Annual Meeting*, June 13, Palmerston North, NZ.
- Perkins, N. R., & McKenzie, J. (1999). Turning research outputs into software products. *Visit by Hon. Mr Maurice Williamson*, July 15, Massey University, Palmerston North, NZ.
- Stafford, K. J. (1999). Domestic cat as friend or foe. *Kapiti Adult Learning Programme*, May 24, Paraparaumu, NZ.
- Stafford, K. J. (1999). The prowl and the pussycat. *Wellington Branch of Forest and Bird Society*, February 18, Wellington, NZ.
- Wilson, P. R. (1999). Deer parasites, parasite control and weaning. *Hawke's Bay Performance Project Seminar*, March 2, Waipukurau, NZ.
- Wilson, P. R. (1999). Deer parasites and parasite control. *Hawke's Bay Farmers Association*, March 3, Waipukurau, NZ.

16. Professional Consultancy

- Davies, P. R. (1999). Control of Salmonella in swine production. *Smithfield Foods, Virginia, USA*, June 4.
- Davies, P. R. (1999). Development of a public health action plan to combat antimicrobial resistance. *Center for Disease Control-Food and Drug Administration-National Institutes of Health Workshop*, July 19-21.
- Davies, P. R. (1999). Development of a public health action plan to combat antimicrobial resistance. *US National Pork Producers Council, Food Safety Committee*.
- Davies, P. R. (1997-1999). Development of a public health action plan to combat antimicrobial resistance. *US National Pork Producers Council, Pharmaceutical Issues Task Force*.
- Davies, P. R. (1998-1999). Development of a public health action plan to combat antimicrobial resistance. *US National Pork Producers Council, Salmonella Task Force*.

- Davies, P. R. (1998-1999). Development of a public health action plan to combat antimicrobial resistance. *US National Pork Producers Council, Toxoplasma Task Force*.
- Jackson, R. (1999). In-country study of restructuring of veterinary services in Azerbaijan. *Food and Agriculture Organisation of the United Nations, Rome, Italy*, April 14.
- Madie, P. (1999). Incompatibilities of whaling and whale welfare. *Humane Society of the United States*, March 30.
- Morris, R. S. (1999). Emergency prevention system for transboundary animal and plant pests and diseases: Livestock Programme. *Food and Agricultural Organisation of the United Nations*, May 25.
- Morris, R. S., Jackson, R., & Stevenson, M. (1999). Xenotransplantation risk assessment: An analysis of the potential for transfer of infectious disease to man via xenotransplantation of neonatal pig pancreas cells derived from a high health status pig herd in New Zealand. *Food and Agriculture Organisation of the United Nations*, February 11.
- Morris, S. T. (1999). Review of Ruakura Animal Ethics Committee. *Australian and New Zealand Council for the Care of Animals in Research and Teaching*, April 28.
- Parton, K. (1999). Standards on corticosteroid licensing. *Ministry of Agriculture and Forestry*, November.
- Stafford, K. J. (1999). Classification of the dog "Rico" property of P. Lieshout as a "dangerous dog". *Invercargill City Council*, June 1.
- Stafford, K. J. (1999). The suitability of the dog pound building at Awa Street for holding dogs. *Manawatu District Council*, June 5.
- Stafford, K. J., & Mellor, D. J. (1999). A survey of New Zealand beef farmers to ascertain the methods used to castrate cattle. *Ministry of Agriculture and Forestry*, May 20.
- Waghorn, G. C., Gregory, N. G., Todd, S. E., Birtles, M. J., & Khalaf, S. (1999). Factors affecting the adhesion of faeces to wool, resulting in dags. *AgResearch Grasslands*, September.
- Wilson, G. F. (1999). Report on mineral composition of salt blocks. *Dominion Salt Ltd*, December 2, 7.
- Wilson, P. R., Stafford, K. J., & Mellor, D. J. (1999). Investigation of routes and doses of local anaesthetic administration to produce analgesia of the velvet antler of stags. *MAF-Policy, and New Zealand Game Industry Board*, March.

17. Radio, Television and Newsprint Interviews

- Cockrem, J. F. (1999). New work with keas at Massey University [Radio interview]. *National Radio*, November 4.
- Duignan, P. J. (1999). [Television interview]. *TV1, What Now*, July 16.
- Ethell, M. (1999). Massey Equine staff profiles [Interview by H. Firth]. *New Zealand Horse and Pony*, (484), 14.
- Ethell, M. (1999, February 27). Shans Beau in the wars. *Evening Standard (Palmerston North, NZ)*, 11.
- Firth, E. C. (1999). Debunking the ivory tower theory [Interview by H. Firth]. *New Zealand Horse and Pony*, (484), 13-14.
- Firth, E. C. (1999). Tendonitis in horses [Radio interview]. *National Radio, Eureka*, August.
- Holmes, C. W. (1999, August 10). Pig expert has a cow of a job now [Interview by L. Warr]. *Evening Standard (Palmerston North, NZ)*, 9.
- Mogg, T. (1999). Massey Equine staff profiles [Interview by H. Firth]. *New Zealand Horse and Pony*, (484), 14.
- Morris, R. S. (1999, April 28). Attempt to lay ground rules for gene technology. *The Dominion*.
Morris, R. S. (1999, November 1). BSE enquiry, UK. [Interview by N. Loader]. *The Economist*.
- Morris, R. S. (1999, November 1). BSE enquiry, UK [Interview by N. Loader]. *Nature*.
- Morris, R. S. (1999). BSE enquiry [Radio interview by M. Braywood]. *BBC Bristol, National Current Affairs*, October 15.
- Morris, R. S. (1999). BSE enquiry [Radio interview by F. Jensen]. *BBC London, National Current Affairs*, October 10.
- Morris, R. S. (1999). BSE enquiry [Radio interview by K. Fairburn]. *Independent Radio News*, October 17.
- Morris, R. S. (1999). BSE enquiry, UK [Radio interview by G. Robinson]. *National Radio, Morning Report*, October 18.
- Morris, R. S. (1999). BSE enquiry [Radio interview by K. Atkinson]. *New Zealand Press Association*, October 15.
- Morris, S. T. (1999, November 18). Case put for in-line farming [Interview by I. Hyndman]. *Wanganui Chronicle*, 12.

- Morris, S. T. (1999). How does a 400-600% lambing sound? [Interview by B. Feely]. *Country-Wide*, 21(8), 9.
- Morris, R. S. (1999). Xenotransplantation [Radio interview]. *National Radio, Eureka*, August 21.
- Perkins, N. (1999, October 18). High hopes for rare pair [Interview by B. Marriner]. *Evening Standard (Palmerston North, NZ)*, 1.
- Perkins, N. (1999). Massey Equine staff profiles [Interview by H. Firth]. *New Zealand Horse and Pony*, (484), 14.
- Perkins, N. R. (1999, October). Subject focus: Computer science. *Computer Science*, 4-9.
- Pomroy, W. E. (1999, January). High resistance to anthelmintics remains worry [Interview by M. Taylor]. *The New Zealand Farmer*, 14.
- Pomroy, W. E. (1999, October 12). Parasites thriving [Interview by L. Warr]. *Evening Standard (Palmerston North, NZ)*, 12.
- Ridler, A. (1999). Scientist finds disease spread from rams [Interview by B. Feely]. *Country-Wide*, 21(10), 31.
- Ridler, A., & West, D. (1999, September). Speedy spread of sheep STD [Interview by D. Barton]. *The Deerfarmer*, 12.
- Squires, R. (1999). Rokan: A tiger's tale [Interview by T. Collier]. *Pet*, 9, 22-25.
- Tyler, S., Stephenson, N., & Johnson, M. (1999). Massey equine technicians [Interview by H. Firth]. *New Zealand Horse and Pony*, (484), 14.
- West, D. M. (1999). The confusing role of iodine in lamb survival [Interview by B. Feely]. *Country-Wide*, 21(8), 45.
- West, D. (1999). Dog ... gone [Interview by G. Schick]. *Wool Grower*, (4), 7.
- West, D. M. (1999). Johne's disease research: How big is the problem? *Helpdesk*, (2), 2.
- West, D. M. (1999). More iodine deficiency [Interview by B. Feely]. *Country-Wide*, 21(8), 45.
- West, D. M. (1999). Study of thyroid gland [Interview by B. Feely]. *Country-Wide*, 21(8), 44.