

CURRICULUM VITAE

Name: John Anthony PICKETT CBE, DSc, FRS (Professor)

Professional title and affiliation: Professor of Biological Chemistry, Cardiff University

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Nationality: British

Place/date of birth: Leicester, United Kingdom, 21 April 1945

Marital status: Married Ulla B.S., two children Hilda A., Erik J.

School: King Edward VII Grammar School, Coalville (1956-1963)

Qualifications: B.Sc., Honours chemistry, 2(i), 1967, University of Surrey

Ph.D., Organic chemistry, 1971, University of Surrey, Compounds from dinitriles and hydrazine, Professor J.A. Elvidge, 1967-1970

Chartered Chemist, 1975

D.Sc., University of Nottingham, 1993

Chartered Scientist, 2004

Honours/awards:

- Honorary Professor, University of Nottingham, 1991 in perpetuity
- The Rank Prize, Nutrition and Crop Husbandry, 1995
- **Fellow of the Royal Society, 1996**
- **Member of the Deutsche Akademie der Naturforscher Leopoldina, 2001**
- International Society of Chemical Ecology Medal, 2002
- **CBE, for Services to Biological Chemistry, 2004**
- Honorary Life Membership, the Association of Applied Biologists, 2004
- Foreign Member of the Royal Swedish Academy of Agriculture and Forestry, 2005
- Honorary DSc, University of Aberdeen, 2008
- **Wolf Foundation Prize in Agriculture, 2008**
- The Royal Society Croonian Prize Lecture, "Plant and Animal Communication", 3 June 2008
- Honorary Fellowship of the Royal Entomological Society, 2010
- Honorary Member of the Chemical Society of Ethiopia (CSE), 2010
- Bachelor of the University of Surrey, *honoris causa*, 2 November 2011
- Millennium Award, ASSOCHAM's 9th Knowledge Millennium Summit, New Delhi, India (and Millennium Address speaker), 8 November 2011
- International Congress of Entomology Certificate of Distinction, awarded at the XXIV International Congress of Entomology, Daegu, Korea, 19-25 August, 2012
- **National Academy of Sciences (US) Foreign Associate, for his role as "an international driving force in the science and application of chemical ecology and in fostering advances in integrated pest management and agricultural sustainability". 2014**
- Honorary DSc, University of Surrey, July 2016
- Honorary DSc, University of Neuchâtel, October 2016
- Honorary Distinguished Professor, Cardiff University, 2016
- Honorary Professor, School of Life Sciences, University of Warwick, 2017
- Honorary Professor, College of Life and Environmental Sciences, University of Exeter, 2017

Professional affiliations:

- Fellow of the Royal Society of Chemistry, 1982
- Fellow of the Royal Entomological Society, 1989
- Member of the American Chemical Society, 1993
- Member of the Royal Institution, 1997

Academic positions:

- External examiner, MSc Course, Pest Management, Imperial College at Silwood Park, 1992-1995
- Chairman, Advisory Committee, School of Applied Chemistry, University of North London, 1993-1995
- Honorary Member, Academic Staff, University of Reading, 1995-
- External Examiner, Environmental Science, University of Sussex, 1997-2000
- Honorary Professor, School of Biology, University of Nottingham since 1991 in perpetuity
- Periodic teaching on the Graduate Course in Insect Chemical Ecology, Penn State University, USA
- Honorary Distinguished Professor for the School of Chemistry, Cardiff University, 2016 -2021
- Tutor on Visions for a Sustainable Agriculture, University of Neuchatel, 2016 -

Career:

- 1970-1972: Postdoctoral fellowship, University of Manchester Institute of Science and Technology, Synthesis and photochemistry of perfluoroalkylpyridazines, Professor R.N. Haszeldine, FRS.
- 1972-1976: Senior scientist, Chemistry Department, Brewing Research Foundation, Redhill, Surrey. Chemical studies on flavour active components of hops and malt.
- 1976-1983: Principal Scientific Officer, Department of Insecticides and Fungicides, Rothamsted Experimental Station: Leading & coordinating studies on semiochemical aspects of insect chemical ecology.
- 1984-2010: Head, Band 2, Individual Merit, of the Biological Chemistry Department (formerly the Department of Insecticides and Fungicides, 1984-1993, renamed Biological and Ecological Chemistry Department, 1993-2001, renamed Biological Chemistry Department, 2001-2010), Rothamsted Research. (Individual Merit Promotion to Grade Band 2, 1993).
- 2007-2010: Scientific Director, Centre for Sustainable Pest and Disease Management (concurrently with heading the Department of Biological Chemistry), Rothamsted Research.
- 2010-2014: Scientific Leader of Chemical Ecology, Rothamsted Research
- 2010-2017: Michael Elliott Distinguished Research Fellow, Rothamsted Research.
- 2017-present: Professor of Biological Chemistry, Cardiff University.

Distinguished lectures:

- Distinguished Lecture in Life Sciences, Boyce Thompson, Institute for Plant Research at Cornell University, 1991
- Alfred M. Boyce Lecture, University of California, Riverside, 1993
- "Insects and Chemical Signals: A Volatile Situation", Royal Institution Discourse, 11.96
- "Keynotes in Natural Resources" lecture, Swedish University of Agricultural Sciences, Uppsala, 02.03.98
- Woolhouse Lecture, The Society for Experimental Biology, University of York, 26.03.98
- Barrington Memorial Lecture, University of Nottingham, 29.04.99
- Cameron-Gifford Lecture, University of Newcastle, 09.02.00
- Andersonian Chemical Society Centenary Lecture, University of Strathclyde, 05.04.06
- 17th H.R. MacCarthy Pest Management Lecture, University of British Columbia, Canada, 10.10.07
- The Cornell University Lecture, Ithaca, 31.03.09
- Wilson Baker Lecture, University of Bristol, 17.03.10
- Millennium Address, ASSOCHAM's 9th Knowledge Millennium Summit, New Delhi, India (and recipient of 2011 Millennium Award), 08.11.11
- G.E. Blackman Lecture, University of Oxford, 24.05.12
- Keck Distinguished Seminar, North Carolina State University, Raleigh, 12.09.13
- "Norman Borlaug and the Green Revolution; the next 100 years." "Enhancement of crop resistance to pests", BioVision Alexandria, 08.04.14
- Keynote lecture for symposium "Plant genetic engineering", 16th European Congress of Biotechnology, Edinburgh, 14.07.14
- Keynote lecture on the future of GE crops, Tufts University, Boston, 09.04.15

- Plenary lecture: New approaches to exploiting plant secondary metabolism: Induction of defence and production. Emerging Technologies for Global Food Security, Saskatoon, 14.06.16
- Plenary lecture and Bruker Award 2016 recipient: New phytochemical signalling targets for agriculture. Phytochemical Society, Europe, Copenhagen, 26.07.16
- Keynote lecture: New tools for sustainable agriculture from plant secondary metabolism. 2016 world life sciences conference, Beijing, China 03.11.16
- Keynote guest speaker: Opportunities for pest control in 2030, being sustainable but delivering global food needs. Global insecticide workshop, Bayer, Germany 28.03.17
- Elizabeth Creak Inaugural Distinguished guest lecture: Global food security: removing production constraints with GM, but learning from nature. Warwick University, 26.05.17
- Keynote Lecture: Natural products in agriculture: delivery of chemical signals via GM and companion planting for crop protection and production. IUPAC 49th General Assembly, Brazil 11.07.17
- Sterling B Hendricks Memorial Lecture: 254th American Chemical Society National Meeting 22.08.17
- Rekunyk Lecture of the College of Agriculture and Bioresources in Partnership with the Global Initiative for Food Security on Global Food Security, Saskatoon, Canada 24.10.17

Posts of distinction: (Please note ongoing commitments are listed under start date)

- Editorial Board, *Journal of Chemical Ecology*, 1991-
- Councillor, International Society of Chemical Ecology, 1991-2000
- Visiting Group IPO-DLO, Netherlands, 1993
- Vice-President, the International Society of Chemical Ecology, 1994
- President, International Society of Chemical Ecology, 1995
- Expert, committee evaluation of INCO-Copernicus, European Commission DGXII, 1996
- Scientific Adviser, International Foundation for Science, Stockholm, Sweden, 1996-
- Member of Royal Society Conference Grants Committee, 1997-1999
- Member of Royal Society Sectional Committee 9, 1997-2000
- Chairman, Organiser, Royal Society Discussion Meeting, April 1998; co-editor of associated volume "Insecticide Resistance: from Mechanisms to Management", CABI publishing, 1999
- Chairman, Organiser, Biotechnology in Agriculture, IBC UK Conference, London, 6-7 July, 1998
- Guest Editor, *The Biochemist*, Insect Supersense, August 1998
- Vice-Chairman, Executive Committee, Ninth International Congress of Pesticide Chemistry, London, 2-7 August 1998
- Proposer, Chairman, Novartis Foundation Symposium 223, Insect-Plant Interactions and Induced Plant Defence, 13-15 October 1998
- Presenter of expert evidence to the House of Lords Select Committee on the European Communities, Organic Farming and the European Union, May 1999
- Member of Peer Review Committee on Environmental Biology and Chemical Ecology in the Boyce Thompson Institute for Plant Research at Cornell University, October 1999
- Chairman, Royal Society Working Group on the Future of Sites of Special Scientific Interest (SSSIs), 2000-2001
- Member of Royal Society Council, 2000-2002
- Chairman, Royal Society Copus Grants Panel, 2002-2004
- Member, Plant Sciences Advisory Board, University of Reading, 2002-2007
- Member of review panel of the Swiss National Science Foundation, National Centre of Competence in Research (NCCR), Plant Survival in Natural and Agricultural Ecosystems, 2002-2013
- Member of the Royal Society Working Group monitoring the Planetary Protection activities associated with the Beagle 2 probe to Mars, 2002-2003
- Chairman of Scientific Advisory Board for the Max-Planck-Gesellschaft, Institute of Chemical Ecology, Jena, Germany, 2007- 2016 (and Member from 2003)
- Member of the BBSRC Appointments Board, 2004-2007
- Chair of Gates Foundation Expert Scientific Advisory Committee (ESAC) on Pesticides for Malaria Control, 2005-

- Chairman of the International Centre of Insect Physiology and Ecology (*icipe*) Governing Council, Nairobi, 2007-2013 (and Member from 2005-2006, 2014)
- Editorial Board, *International Journal of Tropical Insect Science*, 2006-
- Member of the Royal Society's Dorothy Hodgkin Fellowship Selection Panel, 2006-2008
- Chairman of the Royal Society Working Group on Development for Biofuels, 2006-2007
- Chairman of the Royal Society Sectional Committee 9, 2007-2009
- Member of Governing Body of Uppingham School as representative for the Royal Society, 2007-
- Editorial Board, *Phytochemistry Letters*, 2007-
- Editorial Board, *Phytochemistry*, 2008-
- Patron, Butterfly World, St. Albans, 2008-2015
- Member of Award Committee for the Leverhulme-Royal Society Africa Award, 2008-2015
- Member of the Defence Science Expert Committee (DSEC) Independent Scientific and Technical Advice (ISTA) Register, 2008-
- Member of Royal Society Review Group, Royal Society Policy Study on Biological Approaches to Enhance Food-Crop Production, 2008
- Member of review group of the Royal Society's policy report on food production, '*Reaping the benefits: towards the sustainable intensification of global agriculture*', launched 20 October, 2009
- Member of the Royal Society's Medals and Awards Committee, 2009-2014
- Chairman of Royal Society's Summer Science Exhibition Committee, 2010-2012 (Member from 2008)
- Ex-officio member of the Royal Society Hooke Committee, 2010-2012
- Chair, Advisory Board, Vector-Based Control of Transmission: Discovery Research (VCTR), a Bill & Melinda Gates Foundation Grand Challenges in Global Health (GCGH) supported program under the auspices of the Foundation for the National Institutes of Health, USA, 2010-2015
- Member of Board of Trustees, International Institute of Tropical Agriculture (IITA), 2010-2017
- Member, Informal Research Advisory Group (iRAG) on research policy, DFID, 2010-2013
- Expert Advisor, National Strategy on Climate Change and Low Carbon Development, for the government of Rwanda, chaired by Sir David King, Smith School of Enterprise and the Environment, University of Oxford, 2010-2014
- Appointed to HEFCE REF 2014 Panel A, sub-panel 5 – Biological Sciences, 2010-2014
- Member, BCPC Editorial Advisory Board, *The Pesticide Manual*, 2011-
- Member, review panel for Sustainable Crop Production Research International Development (SCPRID) programme (jointly funded by BBSRC, DFID, BMGF and the Indian Government's Department of Biotechnology and the Indian Council of Agricultural Research), 2011-2014
- Member, Institute for Life Sciences External Advisory Committee, University of Southampton, 2011-
- Assessor, Grants For Research and Development, Technology Strategy Board, 2011-
- Chair, Royal Society Pfizer Award Seminar, 18 October 2011 and 31 October, 2012
- Member, Advisory Board, Integrated Striga Management in Africa (ISMA) project in Nigeria and Kenya, funded by the Bill & Melinda Gates Foundation, 2012-
- Member, BBSRC Pool of Experts, Responsive Mode Grants, 2012-
- Panel Chair, Royal Society-DFID Capacity Building Initiative, 1st April 2013-31st March 2016
- President, Royal Entomological Society, 2014-2016
- Member, DFID Research Advisory Group (RAG), 2013-
- Member, review panel for grant proposals submitted to the Global Innovation Initiative (GII) for the British Council USA, 2013
- Reviewer, Retrospective study of the Rockefeller program on rice biotechnology research, Bill and Melinda Gates Foundation, 2013
- Member, Science Advisory Board (SAB), The Pirbright Institute, 2014-2020
- Panel Member, Research Excellence Framework, 2014
- Trustee of BCPC, 2014-
- Member of the Agroscope Scientific Board, Switzerland 2014-
- Member of GM Science Update panel to the Council for Science and Technology 2014/2015
- Presenter of expert evidence for the Parliamentary Office of Science and Technology (POST) to the House of Lords on Genetically Modified Insects and Disease Control, February 2015
- Member of the Committee for the SABMiller Award, 2015
- Chair of External Advisory Board, School of Chemistry, Cardiff University, 2015 –
- Chair of Technical committee on push-pull technology for *icipe*'s IBCARP (Eu funded) Steering

Committee, 2015 –

- Member of the Society for Experimental Biology (SEB), September 2015
- Editor-in-Chief, Royal Society Philosophical Transactions B, January 2016 –
- Chair of the Global Institute for Food Security's International Scientific Advisory Panel (ISAP) March 2016 –
- Royal Society Theo Murphy Blue Skies Panel Member 2016
- Honorary Treasurer, Royal Entomological Society, 2016-
- Vice Chairman of BCPC's Board of Trustees, 2016-
- Swedish Research Council Panel Member for Natural, engineering & environmental sciences (UF-3), 2017
- Reviewer, GCRF Networking Grants scheme, 2017
- Associate Editor, International Journal of Tropical Insect Science, 2017

Personal Scientific Research Interests:

The natural product chemistry of interactions between insects, some other animals, and between insects and their plant or animal hosts. This specifically involves the chemical characterisation of molecular structures of natural products that influence the development or behaviour (pheromones and other semiochemicals) of insects and other organisms. The first to identify chemically, aphid, mosquito and sandfly sex related pheromones. Research extends to the biochemistry and molecular biology of secondary plant metabolites that act as semiochemicals and the mechanisms by which they are employed and perceived by insects. The long-term objectives are to develop pheromones and other semiochemicals for new methods of pest control. This is exemplified particularly by work in Africa using companion crops to deliver plant secondary metabolites as semiochemicals for pest and weed management and new approaches for using genetic modification of crop plants to release defensive semiochemicals. Studies also involve devising novel ways of controlling vectors of pathogens attacking the human population and farmed animals.

Publications and Patents: Over 540

Some Current Grants

JOHN PICKETT GRANT LIST 2017

Date	Grant Name	Inv	Ref	Amount
2013-2017	Enhancing diversity in UK wheat through a public sector pre-breeding programme (joint project), BBSRC	PI	BB/I002278/1	
2012-2018	LoLa, The interplay of rodent behaviour and semiochemistry: from scientific principles to control strategies, BBSRC	PI	BB/J001821/1	£721,873
2012-2017	ZonMw TOP (Netherlands), Chemical signalling of malaria parasites - call for transmission?			
2012-2017	SMART cereals for management of stemborer pests in staple cereals in Africa, BBSRC	CO I	BB/J011371/1	£756,252
2013-2017	Defining the genetic and semiochemical basis of tick resistance in cattle, BBSRC	CO I	BB/K007610/1	£416,880
2013-2017	New pest resistance in rice by breeding and genetic modification (GM) for constitutive and inducible levels of defence homoterpenes, BBSRC	PI	BB/L001683/1	£160,395
2014-2017	UK Brazil partnering award for developing new aphid resistance in wheat, BBSRC	CO I	BB/L02652X/1	£48,782
2016-2017	Improved understanding of the causes, distribution and scale of Acute Oak Decline in the UK: diversity and life history of Agrilus biguttatus, DEFRA	CO I		
2015-2018	Collaboration on chemical ecology of drought-tolerant plants used in the Push-Pull System-IBCARP, EU - Collaborative project	CO I		
2015-2017	Addiction of Insects for Biosensing –Acting, EU Marie Curie	PI		
	*Napier Stunt-saving the smallholder, Trust & Charities	CO I		
2015-2018	Epizingiberene synthase: structure, mechanism and a template for design of bioactive chemical space underpinning insect olfaction, BBSRC	CO I	BB/M023729/1	£313,847
2016-2017	Novel Seniochemicals for crop protection through synthetic biology	CO I	BB/N012526/1	£197,423
2016-2019	The mechanisms underlying the production of natural mosquito repellents by human beings	CO I	MR/P021972/1	£803,639

PUBLICATIONS: John Pickett

1. J.A. Elvidge and J.A. Pickett (1972) Heterocyclic imines and amines. Part 13. 3,6-Dihydrazinopyridazine and the nature of the reaction between 3,6-dimethoxy-pyridazine and hydrazine. *Journal of the Chemical Society Perkin I*, 1483–1488.
2. J.A. Elvidge and J.A. Pickett (1972) Heterocyclic imines and amines. Part 14. Products from 2,5-diiminopyrrolidine (succinimidine) and hydrazine. *Journal of the Chemical Society Perkin I*, 2346–2351.
3. M.G. Barlow, R.N. Haszeldine and J.A. Pickett (1978) Heterocyclic polyfluoro-compounds. Part 26. Synthesis of 3,6-bistrifluoromethyl-pyridazines and -dihydropyridazines. *Journal of the Chemical Society Perkin I*, 378–380.
4. J.A. Pickett (1973) Use of micro-bead anion-exchange resin for direct estimation of flavour nucleotides in complex solutions. *Journal of Chromatography* **81**, 156–159.
5. J.A. Pickett (1974) Estimation of nucleotides in beers and their effect on flavour. *Journal of the Institute of Brewing* **80**, 42–47.
6. D.R.J. Laws and J.A. Pickett (1974) Brewing, malting and allied processes. *Reports on the Progress of Applied Chemistry* **59**, 345–357.
7. J.A. Pickett, J. Coates and F.R. Sharpe (1975) Distortion of essential oil composition during isolation by steam distillation. *Chemistry and Industry*, 571–572.
8. J.A. Pickett, J. Coates and F.R. Sharpe (1975) Improvement of hop aroma in beer. *Proceedings of the European Brewery Convention, 15th Congress, Nice*, 123–140.
9. D.R.J. Laws and J.A. Pickett (1975) Brewing, malting and allied processes. *Reports on The Progress of Applied Chemistry* **60**, 451–463.
10. J.A. Pickett (1976) Studies on flavour-active sulphur components of hops and beer. *Proceedings of the Analytical Division of the Chemical Society*, 215–217.
11. J.A. Pickett, J. Coates and F.R. Sharpe (1976) Procedure for non-destructive concentration of flavour-active components of beer. *Journal of the Institute of Brewing* **82**, 228–233.
12. J.A. Pickett, J. Coates and F.R. Sharpe (1976) Chemical characterisation of differences between ales and lagers. *Journal of the Institute of Brewing* **82**, 233–238.
13. J.A. Pickett, T.L. Peppard and F.R. Sharpe (1976) Effect of 'sulphuring' on hop oil composition. *Journal of the Institute of Brewing* **82**, 288–289.
14. J.A. Pickett, F.R. Sharpe and T.L. Peppard (1976) Stability of essential oil of hops. *Journal of the Institute of Brewing* **82**, 330–333.
15. J.A. Pickett and F.R. Sharpe (1976) Effect of reduction in hop oil content on rate of deterioration of alpha-acid in hops. *Journal of the Institute of Brewing* **82**, 333.
16. D.R.J. Laws, N.A. Bath and J.A. Pickett (1977) Production of solvent-free isomerized extracts. *Journal of the American Society of Brewing Chemists* **35**, 187–191.
17. D.R.J. Laws, N.A. Bath, J.A. Pickett, C.S. Ennis and A.G. Wheldon (1977) Preparation of hop extracts without using organic solvents. *Journal of the Institute of Brewing* **83**, 39–40.
18. J.A. Pickett, T.L. Peppard and F.R. Sharpe (1977) Recent developments in low temperature steam distillation of hop oil. *Journal of the Institute of Brewing* **83**, 302–304.
19. J.A. Pickett, F.R. Sharpe and T.L. Peppard (1977) Aerial oxidation of humulene. *Chemistry and Industry*, 30–31.
20. D.R.J. Laws, T.L. Peppard, F.R. Sharpe and J.A. Pickett (1978) Recent developments in imparting hop character

to beer. *Journal of the American Society of Brewing Chemists* **36**, 69–72.

21. J.A. Pickett (1979) Behaviour controlling chemicals. *Education in Chemistry* **16**, 44–47.
22. A.W. Ferguson, J.B. Free, J.A. Pickett and M. Winder (1979) Techniques used for studying honeybee pheromones involved in clustering, and experiments on the effect of Nasonov and queen pheromones. *Physiological Entomology* **4**, 339–344.
23. D.C. Griffiths and J.A. Pickett (1980) A potential application of aphid alarm pheromones. *Entomologia Experimentalis et Applicata* **27**, 199–201.
24. J.A. Pickett and D.C. Griffiths (1980) Composition of aphid alarm pheromones. *Journal of Chemical Ecology* **6**, 349–360.
25. J.A. Pickett, I.H. Williams, A.P. Martin and M.C. Smith (1980) The Nasonov pheromone of the honey bee, *Apis mellifera* L. (Hymenoptera: Apidae). Part I. Chemical characterisation. *Journal of Chemical Ecology* **6**, 425–434.
26. J.A. Pickett and J.W. Stephenson (1980) Plant volatiles and components influencing behaviour of the field slug, *Deroceras reticulatum* (Mu., "II). *Journal of Chemical Ecology* **6**, 435–444.
27. J.B. Free, A.W. Ferguson and J.A. Pickett (1981) Evaluation of the various components of the Nasonov pheromone used by clustering honeybees. *Physiological Entomology* **6**, 263–268.
28. I.H. Williams, J.A. Pickett and A.P. Martin (1981) The Nasonov pheromone of the honey bee, *Apis mellifera* L. (Hymenoptera: Apidae). Part II. Bioassay of the components using foragers. *Journal of Chemical Ecology* **7**, 225–237.
29. J.A. Pickett, I.H. Williams, M.C. Smith and A.P. Martin (1981) The Nasonov pheromone of the honey bee, *Apis mellifera* L. (Hymenoptera: Apidae). Part III. Regulation of pheromone composition and production. *Journal of Chemical Ecology* **7**, 543–554.
30. J.B. Free, J.A. Pickett, A.W. Ferguson and M.C. Smith (1981) Synthetic pheromones to attract honeybee (*Apis mellifera*) swarms. *Journal of Agricultural Science Cambridge* **97**, 427–431.
31. I.H. Williams, J.A. Pickett and A.P. Martin (1981) Attraction of honeybees to flowering plants by using synthetic Nasonov pheromone. *Entomologia Experimentalis et Applicata* **30**, 199–201.
32. J.A. Pickett, I.H. Williams and A.P. Martin (1982) (*Z*)-11-Eicosen-1-ol, an important new pheromonal component from the sting of the honey bee, *Apis mellifera* L. (Hymenoptera: Apidae). *Journal of Chemical Ecology* **8**, 163–175.
33. B.R. Laurence and J.A. Pickett (1982) *Erythro*-6-Acetoxy-5-hexadecanolide, the major component of a mosquito oviposition attractant pheromone. *Journal of the Chemical Society Chemical Communications*, 59–60.
34. R.W. Gibson, A.D. Rice, J.A. Pickett, M.C. Smith and R.M. Sawicki (1982) The effects of the repellents dodecenoic acid and polygodial on the acquisition of non-, semi- and persistent plant viruses by the aphid *Myzus persicae*. *Annals of Applied Biology* **100**, 55–59.
35. I.H. Williams, J.A. Pickett and A.P. Martin (1982) Nasonov pheromone of the honeybee, *Apis mellifera* L. (Hymenoptera: Apidae). Part IV. Comparative electroantennogram responses. *Journal of Chemical Ecology* **8**, 567–574.
36. J.A. Pickett, G.W. Dawson, R.W. Gibson, D.C. Griffiths, A.D. Rice, R.M. Sawicki, M.C. Smith and C.M. Woodcock (1982) Controlling aphid behaviour. *Les Colloques de l'INRA* **7**, 243–252.
37. J.B. Free, A.W. Ferguson, J.A. Pickett and I.H. Williams (1982) Use of unpurified Nasonov pheromone components to attract clustering honeybees. *Journal of Apicultural Research* **21**, 26–29.
38. J.B. Free, I.H. Williams, J.A. Pickett, A.W. Ferguson and A.P. Martin (1982) Attractiveness of (*Z*)-11-eicosen-1-ol to foraging honeybees. *Journal of Apicultural Research* **21**, 151–156.
39. D.C. Griffiths, J.A. Pickett and C.M. Woodcock (1982) Behaviour of alatae of *Myzus persicae* (Sulzer) (Hemiptera:

- Aphididae) on chemically treated surfaces after tethered flight. *Bulletin of Entomological Research* **72**, 687–693.
40. G.W. Dawson, D.C. Griffiths, J.A. Pickett, M.C. Smith and C.M. Woodcock (1982) Improved preparation of (*E*)- β -farnesene and its activity with economically important aphids. *Journal of Chemical Ecology* **8**, 1111–1117.
 41. G.W. Dawson, R.W. Gibson, D.C. Griffiths, J.A. Pickett, A.D. Rice and C.M. Woodcock (1982) Aphid alarm pheromone derivatives affecting settling and the transmission of plant viruses. *Journal of Chemical Ecology* **8**, 1377–1388.
 42. G.G. Briggs, G.W. Dawson, R.W. Gibson, D.C. Griffiths, J.A. Pickett, A.D. Rice, M.F. Stribley and C.M. Woodcock (1983) Compounds derived from the aphid pheromone that interfere with colonization and virus transmission by aphids. *Aspects of Applied Biology* **2**, 1983, *Pests, Diseases, Weeds and Weed Beet in Sugar Beet*, 41–43.
 43. J.A. Pickett, G.W. Dawson, D.C. Griffiths, Liu X., E.D.M. Macaulay, I.H. Williams and C.M. Woodcock (1983) Stabilizing pheromones for field use: propheromones. *Proceedings of the 10th International Congress of Plant Protection* **1**, 271.
 44. D.C. Griffiths, G.W. Dawson, J.A. Pickett and C.M. Woodcock (1983) Uses of the aphid alarm pheromone and derivatives. *Proceedings of the 10th International Congress of Plant Protection* **1**, 272.
 45. G.G. Briggs, G.W. Dawson, R.W. Gibson, D.C. Griffiths, J.A. Pickett, A.D. Rice, M.F. Stribley and C.M. Woodcock (1983) Compounds derived from the aphid alarm pheromone of potential use in controlling colonization and virus transmission by aphids. *Proceedings of the Fifth International Congress of Pesticide Chemistry (IUPAC) Kyoto, 1982* **2**, 117–122.
 46. J.B. Free, A.W. Ferguson and J.A. Pickett (1983) Effect of the components of the Nasonov pheromone on its release by honeybees at the hive entrance. *Journal of Apicultural Research* **22**, 155–157.
 47. R.W. Gibson, J.A. Pickett, G.W. Dawson, A.D. Rice and C. Venables (1983) Pyrethroid insecticides and aphid repellents as means of controlling potato virus Y. *Proceedings of the 10th Anniversary Conference of the International Potato Center, Peru, 1982*, 87–88.
 48. R.W. Gibson and J.A. Pickett (1983) Wild potato repels aphids by release of aphid alarm pheromone. *Nature* **302**, 608–609.
 49. G.W. Dawson, D.C. Griffiths, J.A. Pickett and C.M. Woodcock (1983) Decreased response to alarm pheromone by insecticide resistant aphids. *Naturwissenschaften* **70**, 254–255.
 50. J.B. Free, A.W. Ferguson and J.A. Pickett (1983) A synthetic pheromone lure to induce worker honeybees (*Apis mellifera* L.) to consume water and artificial forage. *Journal of Apicultural Research* **22**, 224–228.
 51. J.A. Pickett, G.W. Dawson, D.C. Griffiths, Liu Xun, E.D.M. Macaulay and C.M. Woodcock (1984) Propheromones: an approach to the slow release of pheromones. *Pesticide Science* **15**, 261–264.
 52. R.W. Gibson, J.A. Pickett, G.W. Dawson, A.D. Rice and M.F. Stribley (1984) Effects of aphid alarm pheromone derivatives and related compounds on non- and semi-persistent plant virus transmission by *Myzus persicae*. *Annals of Applied Biology* **104**, 203–209.
 53. Liu X., E.D.M. Macaulay and J.A. Pickett (1984) Propheromones that release pheromonal carbonyl compounds in light. *Journal of Chemical Ecology* **10**, 809–822.
 54. J.A. Pickett (1984) Prospects for new chemical approaches to insect control. *Chemistry and Industry*, 657–660.
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Patents

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US3979527	Preparation of hop oil	1975-04-29	1976-09-07	LAWS, DEREK, ROY, JAMES PICKETT, JOHN, ANTHONY
DE2745829C2	A method for producing beer to directly suitable for adding iso- alpha -acids	1977-10-12	1984-12-20	BATH NIGEL ALAN ENNIS COLIN STANLEY LAWS DEREK ROY JAMES PICKETT JOHN ANTHONY WHELDON ALFRED GORDON
DE3207473A1	SYNTHETIC BEES PERFUME AND USE THEREOF for attracting A bee colony	1982-03-02	1982-09-16	FERGUSON, ANDREW PICKETT, JOHN, ANTHONY FREE, JOHN SMITH, MARTIN
EP0079906B1	DERIVATIVES OF (E)-BETA-FARNESENE USEFUL IN INSECT CONTROL	1982-05-28	1987-01-21	DAWSON, GLENN, WILLIAM PICKETT, JOHN ANTHON GRIFFITHS, DAVID, CLIFFORD PICKETT, JOHN, ANTHONY
WO1983001621A1	IMPROVEMENTS IN OR RELATING TO PHEROMONES	1982-10-22	1983-05-11	LAURENCE, BRIAN, ROBIN LAURENCE BRIAN ROBIN, PICKETT JOHN ANTHONY
AU579289B2	IMPROVEMENTS IN OR RELATING TO BEHAVIOUR MODIFYING COMPOUNDS	1984-05-24	1988-11-17	EWEN DUNCAN MACRAE MACAULAY JOHN ANTHONY PICKETT
WO1986004897A1	IMPROVEMENTS IN OR RELATING TO PHEROMONES	1986-02-20	1986-08-28	BRIGGS, GEOFFREY, GOWER BRIGGS GEOFFREY GOWER, CAYLEY GEORGE RAYMOND, LAURENCE BRIAN ROBIN, PICKETT JOHN ANTHONY
WO1996029875A1	INSECT MONITORING SYSTEMS AND TRAPS	1996-04-01	1996-10-03	PICKETT, JOHN, ANTHONY
AU2431899A	Pyrazines as attractants for insects of order coleoptera	1999-01-27	1999-08-09	JOHN ANTHONY PICKETT MICHAEL ALEXANDER BIRKETT JAN PETERSSON
GB2388544B	Semiochemicals for sea lice monitoring and control	2003-04-04	2005-11-23	MICHAEL, ALEXANDER, *, BIRKETT JOHN, ANTHONY, *, PICKETT ANNE, JENNIFER, *, MORDUE
EP1613157B8	MOLE REPELLENT	2004-04-12	2009-10-07	BIRKETT, MIK PETERSSON, JAN PICKET, JOHN

Publication No.	Title	Application Date	Publication Date	Inventor(s)
US20090306217A 1	Method and Compositions	2007-03-02	2009-12-10	PICKETT, JOHN, ANTHONY LOGAN, JAMES, GEORGE BIRKETT, MICHAEL, ALEXANDER MORDUE, ANNE, JENNIFER
SG146717A1	PEST REPELLENT COMPRISING GERANYLACETONE	2007-03-02	2008-11-28	PICKETT, JOHN, ANTHONY LOGAN, JAMES, GEORGE BIRKETT, MICHAEL, ALEXANDER MORDUE, ANNE, JENNIFER
US8715704	Lure	2009-01-19	2014-05-06	SKELTON, AMANDA CAMERON, MARY BIRKETT, MICHAEL, ALEXANDER PICKETT, JOHN, ANTHONY
SG163061A1	LURE	2009-01-19	2010-08-30	SKELTON, AMANDA CAMERON, MARY BIRKETT, MICHAEL, ALEXANDER PICKETT, JOHN, ANTHONY
US8221736	Semiochemical	2010-05-18	2012-07-17	HICK, ALASTAIR, JAMES PICKETT, JOHN, ANTHONY WADHAMS, LESTER, JOHN NAPIER, JOHNATHAN, ANDREW
IN2010KO02962A	LURE	2010-08-12	2014-05-23	SKELTON, AMANDA CAMERON, MARY BIRKETT, MICHAEL ALEXANDER PICKETT, JOHN, ANTHONY
US9326520B2	Pest repellent comprising geranylacetone	2007-03-07	2016-05-03	PICKETT, JOHN, ANTHONY LOGAN, JAMES, GEORGE BIRKETT, MICHAEL, ALEXANDER MORDUE, ANNE, JENNIFER
WO2016/110671	Olfactory Ligands	2015-12-23	2016-07-14	PICKETT, JOHN, ANTHONY BIRKETT, MICHAEL, ALEXANDER MILLER, DAVID JAMES ALLEMANN, RUDOLF KONRAD
GB2016053076	Composition	2016-10-04	2017-04-13	MCFADDEN CAMERON, MARY LOGAN, JAMES GEORGE WEEKS, EMMA NATALIE IVY PICKETT, JOHN ANTHONY BIRKETT, MICHAEL, ALEXANDER

Publication No.	Title	Application Date	Publication Date	Inventor(s)
GB2016053076	Composition	2016-10-04	pending	MCFADDEN CAMERON, MARY LOGAN, JAMES GEORGE WEEKS, EMMA NATALIE IVY PICKETT, JOHN ANTHONY
GB1701810.2	Pest Attractant	2017-02-13	pending	PICKETT, JOHN, ANTHONY BIRKETT, MICHAEL
GB1616815.5	Compounds for attracting bed bugs	2016-10-04	pending	MCFADDEN CAMERON, MARY LOGAN, JAMES GEORGE PICKETT, JOHN ANTHONY BIRKETT, MICHAEL, ALEXANDER
GB2009/000140	Lure for mites comprising neryl formate	2009-07-23	2017-04-18	SKELTON AMANDA CAMERON, MARY BIRKETT, MICHAEL ALEXANDER PICKETT, JOHN ANTHONY