

Refereed publications: (Updated December 2021)

130. Lemcke R, Sjökvist E, Visentin S, Kamble M, James EK, Hjörtshøj R, Wright KM, Avrova A, **Newton AC**, Havis ND, Radutoiu S, Lyngkjær MF, 2021. Deciphering molecular host-pathogen interactions during *Ramularia collo-cygni* infection on barley. *Frontiers in Plant Science* 12:747661, <https://doi.org/10.3389/fpls.2021.747661>
129. Carrillo-Rechea J, **Newton AC**, Ferrando-Molina F, Quilliam RS, 2021. Can 'on-farm' seed priming and chitosan seed treatments induce winter barley (*Hordeum vulgare* L.) host defences under field conditions? *Crops* 1, 68-87. <https://doi.org/10.3390/crops1020008>
128. Jeger M, Beresford R, Bock C, Brown N, Fox A, **Newton AC**, Vicent A, Xu X, Yuen J, 2021. Global challenges facing plant pathology: multidisciplinary approaches to meet the food security and environmental challenges in the mid-21st century. (Review) *CABI Agriculture and Bioscience* 2:20. <http://doi.org/10.1186/s43170-021-00042-x>
127. Brooker RW, Hewison RL, Mitchell C, **Newton AC**, Pakeman RJ, Schöb C, Karley AJ, 2021. Does crop genetic diversity support positive biodiversity effects under experimental drought? *Basic and Applied Ecology* <https://doi.org/10.1016/j.baae.2021.05.001>
126. Weih M, Karley AJ, **Newton AC**, Kiær L, Scherber C, Rubiales D, Adams E, Ajal J, Brandmeier J, Pappagallo S, Villegas Fernández A, Reckling M, Tavoletti S, 2021. Grain yield stability of cereal-legume intercrops greater than sole crops in more productive conditions. *Agriculture* 11, 255. <https://doi.org/10.3390/agriculture11030255>
125. Yassin M, Ton J, Rolfe SA, Valentine T, Cromey M, Holden N, **Newton AC**, 2021. The rise, fall and resurrection of chemical induced resistance agents. *Pest Management Science* 77, 3900-3909. <https://doi.org/10.1002/ps.6370>
124. Cope JE, Russell J, Norton GJ, George TS, **Newton AC**, 2021. Identifying potential novel resistance to the foliar disease 'Scald' (*Rhynchosporium commune*) in the Scottish barley landrace Bere (*Hordeum vulgare* L.). *Journal of plant diseases and protection* 128, 999-1012. <https://doi.org/10.1007/s41348-021-00470-x>
123. Carrillo-Rechea J, **Newton AC**, Quilliam RS, 2021. Using seed respiration as a tool for calculating optimal soaking times for 'on-farm' seed priming of barley (*Hordeum vulgare*). *Seed Science Research* 31, 116-124. <https://doi.org/10.1017/S0960258521000039>
122. Rivington, Mike; King, Richard; Duckett, Dominic; Ianetta, Pete; Benton, Tim; Burgess, Paul; Hawes, Cathy; Wellesley, Laura; Polhill, John; Aitkenhead, Matt; Lozada-Ellison, Luz-Maria; Begg, Graham; Williams, Adrian; **Newton, Adrian**; Lorenza-Arribas, Altea; Neilson, Roy; Watts, Charlotte; Harris, Jim; Loades, Kenneth; Stewart, Derek; Wardell-Johnson, Douglas; Gandossi, Gianna; Udugbezi, Emmanuel; Hannam, Jacqueline; Keay, Caroline, 2021. UK food and nutrition security during and after the COVID-19 pandemic. *Nutrition Bulletin* 46, 88-97. <https://doi.org/10.1111/nbu.12485>
121. **Newton AC**, Hawes C, Hackett CA, 2021. Adaptation of winter barley cultivars to inversion and non-inversion tillage for yield and rhynchosporium symptoms. *Agronomy* 11, 30. <https://dx.doi.org/10.3390/agronomy11010030>
120. Brooker RW, George T, Homulle Z, Karley AJ, **Newton AC**, Pakeman RJ, Schöb C, 2021. Facilitation and Biodiversity Ecosystem Function (BEF) relationships in crop production systems and their role in sustainable farming. *Journal of Ecology* 109, 2054-2067. <https://dx.doi.org/10.1111/1365-2745.13592>
119. Herman NC, Berghuijs MW, Weih M, van der Werf W, Karley AJ, Adam E, Fernández AV, Kiær LP, **Newton AC**, Scherber C, Tavoletti S, Vico G, 2021. Calibrating and testing APSIM for simulating growth, biomass, and yield of spring wheat and faba bean as sole crops and intercrops across Europe. *Field Crop Research* 264. <https://doi.org/10.1016/j.fcr.2021.108088>
118. Brown JL, Stobart R, Hallett PD, Morris NL, George TS, **Newton AC**, Valentine TA, McKenzie BM, 2021. Variable impacts of reduced and zero tillage on soil carbon storage across 4-10 years of UK field experiments. *Journal of Soils and Sediments* 21, 890-904. <https://doi.org/10.1007/s11368-020-02799-6>
117. De Vega D, Holden NJ, Hedley P, Morris J, Luna E, **Newton AC**, 2021. Chitosan primes defence mechanisms including expression of Avr9/Cf-9 rapidly elicited genes. *Plant Cell and Environment* 44, 290-303. <https://doi.org/10.1111/pce.13921>
116. **Newton AC**, Valentine TA, McKenzie BM, George TS, Guy DC, Hackett CA, 2020. Identifying spring barley cultivars with differential response to tillage. *Agronomy* 10, 686. <https://doi.org/10.3390/agronomy10050686>

115. **Newton AC**, Guy DC, 2020. Assessing effects of crop history and soil amendments on yields of subsequent crops. *Agricultural Science* 11, 514-527. <https://doi.org/10.4236/as.2020.115032>
114. Cope JE, Russell J, Norton GJ, George TS, **Newton AC**, 2020. Assessing the variation in manganese use efficiency traits in Scottish barley landrace Bere (*Hordeum vulgare* L.) *Annals of Botany* 126, 289-300. <https://doi.org/10.1093/aob/mcaa079>
113. **Newton AC**, Guy DC, Hackett CA, 2019. The grain and straw yield in cultivar mixtures. *Journal of Agricultural Science* 157 (2), 117-128. <https://doi.org/10.1017/S0021859619000364>
112. Pakeman R, Brooker R, Karley A, **Newton AC**, Mitchell C, Hewison R, Pollenus J, Guy DC, Schoeb C, 2020. Increased crop diversity reduces the functional space available for weeds. *Weed Research* 60, 121-131. <https://doi.org/10.1111/wre.12393>
111. Davis JL, Armengaud P, Larson TR, Graham IA, White PJ, **Newton AC**, Amtmann A, 2018. Contrasting nutrient-disease relationships: Potassium gradients in barley leaves have opposite effects on two fungal pathogens with different sensitivities to jasmonic acid. *Plant, Cell & Environment* 41, 2357-2372. <https://doi.org/10.1111/pce.13350>
110. de Vega D, **Newton AC**, Sadanandom A, 2018. Post-translational modifications (PTMs) in priming the plant immune system: ripe for exploitation? *FEBS Letters* 592, 1929-1936. <https://doi.org/10.1002/1873-3468.13076>
109. Brooker RW, Karley AJ, Morcillo JL, **Newton AC**, Pakeman RJ, Schöb C, 2018. Crop presence but not genetic diversity, impacts on the rare arable plant *Valerianella rimosa*. *Plant Ecology and Diversity* 495-507 <https://doi.org/10.1080/17550874.2018.1437646>
108. Holland JE, Bennett A, **Newton AC**, White P, McKenzie B, George T, Pakeman R, Bailey J, Fornara D, Hayes R, 2017. Liming impacts on soils, plants and biodiversity in the UK: A review. *Science of the Total Environment* 610-611, 316-332. <https://doi.org/10.1016/j.scitotenv.2017.08.020>
- 107 **Newton AC**, Guy D, Preedy K, 2017. Wheat cultivar yield response to some organic and conventional farming conditions and the yield potential of mixtures. *Journal of Agricultural Science* 155, 1045-1060. <https://doi.org/10.1017/S002185961700017X>
106. Schöb C, Hortal S, Karley AJ, Morcillo L, **Newton AC**, Pakeman RJ, Powell JR, Anderson IC, Brooker RW, 2017. Species but not genotype diversity strongly impacts the establishment of rare colonisers. *Functional Ecology* 31, 1462-1470. <https://doi.org/10.1111/1365-2435.12848>
105. Vasileiadis VP, Dachbrodt-Saaydeh S, Kudsk P, Colnenne-David C, Leprince F, Holb IJ, Kierzek R, Furlan L, Loddo D, Melander B, Jørgensen LN, A. **Newton AC**, Toque C, van Dijk W, Lefebvre M, Benezit M, Sattin M, 2017. Sustainability of European winter wheat- and maize-based cropping systems: economic, environmental and social ex-post assessment of current and IPM-based systems. *Crop Protection* 97, 60-69. <https://doi.org/10.1016/j.cropro.2016.11.002>
104. Lechenet M, Deytieux V, Antichic D, Aubertot J-N, Bàrberi B, Bertrand M, Cellier V, Charles R, Colnenne-David C, Dachbrodt-Saaydeh S, Debaeke P, Doréi T, Farcy P, Fernandez-Quintanilla C, Grandeau G, Hawes C, Jouy L, Justes E, Kierzek R, Kudsk P, Lamichhane JR, Lescourret F, Mazzoncini M, Melander B, Messéan A, Moonen AC, **Newton AC**, Nolot JM, Panozzo S, Retaureau P, Sattin M, Schwarz J, Toqué C, Vasileiadis VP, Munier-Jolain N, 2016. Diversity of methodologies to experiment Integrated Pest Management in arable cropping systems: analysis and reflections based on a European network. *European Journal of Agronomy* 83, 86-99. <https://doi.org/10.1016/j.eja.2016.09.012>
103. **Newton AC**, 2016. Exploitation of diversity within crops – the key to disease tolerance? *Frontiers in Plant Science* 7: 665. <https://doi.org/10.3389/fpls.2016.00665>
- 102 Kaczmarek M, Piotrowska MJ, Fountaine JM, Gorniak K, McGrann GRD, Armstrong A, Wright KM, **Newton AC**, Havis ND, 2016. Infection strategy of *Ramularia collo-cygni* and development of *Ramularia* leaf spot on barley and alternate graminaceous hosts. *Plant Pathology* 66, 45-55. <https://doi.org/10.1111/ppa.12552>
101. Hopkins DW, Wheatley RE, Coakley CM, Daniell TJ, **Newton AC**, Neilson R, 2016. Soil carbon and nitrogen and barley yield responses to repeated additions of compost and slurry. *Journal of Agricultural Science* 155, 141-155. <https://doi.org/10.1017/S0021859616000307>
100. Wiesel L, Davis JL, Milne L, Fernandez VR, Herold MB, Middlefell Williams J, Morris J, Hedley PE, Harrower B, **Newton AC**, Birch PR, Gilroy EM, Hein I, 2015. A transcriptional reference map of defence hormone regulated potato responses. *Nature Scientific Reports* 15229. <https://doi.org/10.1038/srep15229>
99. Pakeman R, Karley AJ, **Newton AC**, Morcillo L, Brooker RW, Schoeb C, 2015. A trait-based approach to understanding crop-weed interactions. *European Journal of Agronomy* 70, 22-32. <https://doi.org/10.1016/j.eja.2015.06.010>

98. Brooker RW, Karley AJ, **Newton AC**, Pakeman RJ, Schöb C, 2015. Facilitation and sustainable agriculture: a mechanistic approach to reconciling crop production and conservation. *Functional Ecology* 30, 98–107, <https://doi.org/10.1111/1365-2435.12496>
97. Wiesel L, **Newton AC**, Elliot I, Booty D, Gilroy EM, Birch PRJ, Hein I, 2014. Molecular effects of resistance elicitors from biological origin and their potential for crop protection. *Frontiers in Plant Science* 5:655. <https://doi.org/10.3389/fpls.2014.00655e>
96. Skelsey P, **Newton AC**, 2015. Future environmental and geographic risks of Fusarium head blight of wheat in Scotland. *European Journal of Plant Pathology* 142, 133-147. <https://doi.org/10.1007/s10681-014-1274-2>
95. Looseley M, Keith R, Guy D, Barral-Baron G, Thirugnanasambandam A, Harrap D, Werner P, **Newton AC**, 2014. Genetic mapping of resistance to *Rhynchosporium commune* and characterisation of early infection in a winter barley mapping population. *Euphytica* <https://doi.org/10.1007/s10681-014-1274-2>
94. Schöb C, Kerle S, Karley AJ, Morcillo L, Pakeman RJ, **Newton AC**, Brooker RW, 2015. Intra-specific genetic and composition modify species-level diversity-productivity relationships. *New Phytologist* 205, 720-730.
93. Looseley M, **Newton AC**, 2014. Assessing the consequences of microbial infection in field trials: seen, and unseen, beneficial, parasitic and pathogenic. *Agronomy* 4, 302-321.
92. George T, MacKenzie B, Hallett P, **Newton AC**, Valentine T, 2014. Field soil platforms for characterisation of soil, nutrient, cultivation – genotype interactions. *Agronomy* 4, 242-278.
91. Skelsey P, **Newton AC**, 2014. Scale-dependent assessment of relative disease resistance to plant pathogens. *Agronomy* 4, 178-190.
90. George TS, Brown LK, Ramsay L, White PJ, **Newton AC**, Bengough AG, Russell J, Thomas WTB, 2014. Understanding the genetic control and physiological traits associated with rhizosheath production by barley (*Hordeum vulgare* L.). *New Phytologist* 203, 195-205.
89. Matthews RB, Rivington M, Muhammed S, **Newton AC**, Hallett PD, 2013. Adapting crops and cropping systems to future climates to ensure food security: The role of crop modelling. *Global Food Security* 2, 24-28.
88. Bingham IJ, Hoad SP, Thomas WTB, **Newton AC**, 2012. Yield response to fungicide of spring barley genotypes differing in canopy structure. *Field Crops Research* 139, 9-19.
87. **Newton AC**, Torrance L, Holden N, Toth I, Cooke DEL, Blok V, Gilroy EM, 2012. Climate change and defence against pathogens in plants. *Advances in Applied Microbiology* 81, 89-132.
86. Zhan J, Yang L, Zhu W, **Newton AC**, 2012. Pathogen populations evolve to greater race complexity in agricultural systems - evidence from analysis of *Rhynchosporium secalis* virulence data. *PLoS One* 7(6): e38611.
85. **Newton AC**, Guy DC, Bengough AG, Gordon DC, McKenzie BM, Sun B, Valentine T, Hallett PD, 2012. Soil tillage effects on the efficacy of cultivar and their mixtures in winter barley. *Field Crops Research* 128, 91-100.
84. Walters D, Avrova A, Bingham IJ, Burnett FJ, Fountaine J, Havis ND, Hoad SP, Hughes G, Looseley M, Oxley SJP, Renwick A, Topp CFE, **Newton AC**, 2012. Control of foliar diseases in barley: towards an integrated approach. *European Journal of Plant Pathology* 133, 33-73.
83. Looseley ME, **Newton AC**, Atkins SD, Fitt BDL, Fraije B, Thomas WTB, Keith R, Lynott J, Harrap D, 2012. Genetic basis of control of *Rhynchosporium secalis* infection and symptom expression in barley. *Euphytica* 184, 47-56.
82. **Newton AC**, Guy DC, 2011. Scale and spatial structure effects on the outcome of barley cultivar mixture trials for disease control. *Field Crops Research* 123, 74-79.
81. **Newton AC**, Flavell AJ, George TS, Leat P, Mullholland B, Ramsay L, Revoredo-Giha C, Russell J, Steffenson B, Swanston JS, Thomas WTB, Waugh R, White PJ, Bingham IJ, 2011. Crops that feed the world 4. Barley: a resilient crop? Strengths and weaknesses in the context of food security. *Food Security* 3, 141-178.
80. **Newton AC**, Johnson SN, Gregory PJ, 2011. Implications of climate change on diseases, crop yields and food security. *Euphytica* 179, 3-18.
79. Chakraborty S, **Newton AC**, 2011. Climate change, plant diseases and food security, an overview. *Plant Pathology* 60, 2-14.
78. Thirugnanasambandam A, Wright K, Havis N, Whisson S, **Newton AC**, 2011. Agrobacterium-mediated transformation of the barley pathogen *Ramularia collo-cygni* with fluorescent marker tags and live tissue imaging of infection development. *Plant Pathology* 60, 929-937.

- 77 Thirugnanasambandam A, Wright KM, Atkins SD, Whisson SC, **Newton AC**, 2011. Infection of Rrs1 barley by an incompatible race of the fungus, *Rhynchosporium secalis*, expressing the green fluorescent protein. *Plant Pathology* 60, 513-521.
- 76 **Newton AC**, Gravouil C, Fountaine JM, 2010. Managing the ecology of foliar pathogens: ecological tolerance in crops. *Annals of Applied Biology* 157, 343-359.
- 75 **Newton AC**, Fitt BDL, Atkins SD, Walters DR, Daniell T, 2010. Pathogenesis, mutualism and parasitism in the trophic space of microbe-plant interactions. *Trends in Microbiology* 18, 365-373.
- 74 **Newton AC**, Duncan JM, Augustin NH, Guy DC, Cooke DEL, 2010. Survival, distribution and genetic variability of inoculum of the strawberry red core pathogen, *Phytophthora fragariae* var. *fragariae*, in soil. *Plant Pathology* 59, 472-479.
- 73 George TS, Brown LK, **Newton AC**, Hallett PD, Thomas W, White PJ, 2011. Impact of soil tillage on the robustness of the genetic component of variation in phosphorus (P) use efficiency in barley (*Hordeum vulgare* L.). 'Proceedings of the International Plant Nutrition Colloquium, Plant and Soil 339, 113-123.
- 72 **Newton AC**, Aker T, Baresel JP, Bebeli P, Bettencourt E, Bladenopoulos KV, Czembor JH, Fasoula DA, Katsiotis A, Koutis K, Koutsika-Sotiriou M, Kovacs G, Larsson H, Pinheiro de Carvalho MAA, Rubiales D, Russell J, dos Santos TMM, Vaz Pato MC, 2010. Cereal landraces for sustainable agriculture: a review. *Agronomy for Sustainable Development* 30, 237-269.
- 71 Gregory PJ, Johnson SN, **Newton AC**, Ingram JSI, 2009. Integrating pests and pathogens into the climate change/food security debate. *Journal of Experimental Botany* 60, 2827-2838.
- 70 **Newton AC**, Begg G, Swanston JS, 2009. Deployment of diversity for enhanced crop function. *Annals of Applied Biology* 154, 309-322.
- 69 **Newton AC**, Guy DC, 2009. The effects of uneven, patchy cultivar mixtures on disease control and yield in winter barley. *Field Crops Research* 110, 225-228.
- 68 Marshall B, **Newton AC**, Zhan J, 2009. Quantitative evolution of aggressiveness of powdery mildew in a two-cultivar barley mixture. *Plant Pathology* 58, 378-388.
- 67 **Newton AC**, Hackett CA, Swanston JS, 2008. Analysing the contribution of component cultivars and cultivar combinations to malting quality, yield and disease in complex mixtures. *Journal of the Science of Food and Agriculture* 88, 2142-2152.
- 66 Zhan J, Fitt BDL, Pinnschmidt HO, Oxley SJP, **Newton AC**, 2008. Resistance, epidemiology and sustainable management of *Rhynchosporium secalis* populations on barley. *Plant Pathology* 57, 1-14.
- 65 Swanston JS, **Newton AC**, Hoad S, Spoor W, 2006. Variation across environments in patterns of water uptake and endosperm modification in barley varieties and variety mixtures. *Journal of the Science of Food and Agriculture* 86, 826-833.
- 64 Walters D, Walsh D, Newton A, Lyon G, 2005. Induced resistance for plant disease control: maximising the efficacy of resistance elicitors. *Phytopathology*, 95, 1368-1373.
- 63 Swanston JS, **Newton AC**, Hoad S, Spoor W, 2005. Barleys grown as cultivar mixtures, compared with blends made before and after malting, for effects on malting performance. *Journal of the Institute of Brewing* 111, 144-152.
- 62 Walters D, **Newton AC**, Lyon GD, 2005. Induced resistance: helping plants to help themselves in the fight against disease. *The Biologist* 52, 28-33.
- 61 Swanston JS, **Newton AC**, Brosnan JM, Broadhead A, Glasgow E, 2005. Determining the spirit yield of wheat varieties and variety mixtures. *Journal of Cereal Science* 42, 127-134.
- 60 **Newton AC**, Toth IK, Neave P, Hyman L, 2004. Bacterial inoculum from a previous crop affects fungal disease development on subsequent non-host crops. *New Phytologist* 163, 133-138.
- 59 **Newton AC**, Hackett C, Lowe, R, Wale S, 2004. Relationship between canopy reflectance and yield loss due to disease in barley. *Annals of Applied Biology* 145, 95-106.
- 58 Goodman BA, **Newton AC**, 2005. Effects of drought stress and its sudden relief on free radical processes in barley. *Journal of the Science of Food and Agriculture* 85, 47-53.
- 57 Swanston JS, **Newton AC**, 2005. Ecologically benign approaches to agricultural practice for bioethanol and by-product production from UK wheat. *Journal of Industrial Ecology* 9, 109-126.
- 56 Hein I, Campbell E, Woodhead M, Hedley P, Young V, Morris W, Ramsey L, Stockhaus J, Lyon GD, **Newton AC**, Birch PRJ, 2004. Characterisation of early transcriptional changes involving multiple signalling pathways in the *Mla13* barley interaction with Powdery Mildew (*Blumeria graminis* f.sp. *hordei*). *Planta* 218, 803-813.

- 55 **Newton AC**, Lees A, Hilton A, Thomas WTB, 2003. Susceptibility of oat cultivars to blackened groats: causes and remedies. *Plant Breeding* 122, 125-130.
- 54 **Newton AC**, Guy DC, Campbell E, Thomas WTB, 2003. The effect of variable environment on inducible powdery mildew resistance expression in barley. *Journal of Plant Disease and Protection* 110, 113-119.
- 53 Lyon GD, **Newton AC**, Marshall B, 2002. The need for a standard nomenclature for gene classification (a Nucleotide Function Code) and an automated data-based tool to assist in understanding the molecular associations in cell signalling in plant-pathogen interactions. *Molecular Plant Pathology* 3, 103-109.
- 52 Durban M, Hackett CA, McNicol JW, **Newton AC**, Thomas WTB, Currie ID, 2003. The practical use of semi-parametric models in field trials. *Journal of Agricultural, Biological and Environmental Statistics* 8, 48-66.
- 51 **Newton AC**, Guy DC, Nadziak J, Gacek E, 2002. The effect of inoculum pressure, germplasm selection and environment on spring barley cultivar mixtures efficacy. *Euphytica* 125, 325-335.
- 50 **Newton AC**, Searle J, Hackett CA, Cooke DEL, 2001. Variability in pathotype, aggressiveness, RAPD profile, and rDNA ITS1 sequences of UK isolates of *Rhynchosporium secalis*. *Journal of Plant Disease and Protection* 108, 446-458.
- 49 Lyngkjær MF, **Newton AC**, Atzema JL, Baker SJ, 2000. The barley *mlo*-gene an important powdery mildew resistance source. *Agronomie: Plant Genetics and Breeding* 20, 745-756.
- 48 de Vallavieille-Pope C, Giosue S, Munk L, **Newton AC**, Niks R, Østergård H, Pons J, Rossi V, Sache I, 2000. Assessment of epidemiological parameters and their use in epidemiological and forecasting models of cereal airborne diseases. *Agronomie: Plant Genetics and Breeding* 20, 715-727.
- 47 Finckh MR, Gacek ES, Goyeau H, Lannou C, Merz U, Mundt CC, Munk L, Nadziak J, **Newton AC**, de Vallavieille-Pope C, Wolfe MS, 2000. Cereal variety and species mixtures in practice, with emphasis on disease resistance. *Agronomie: Plant Genetics and Breeding* 20, 813-837.
- 46 Forster BP, Ellis RP, Thomas WTB, **Newton AC**, Tuberosa R, This D, El-Enein RA, Bahri MH, Ben Salem M, 2000. The development and application of molecular markers for abiotic stress tolerance in barley. *Journal of Experimental Botany* 51, 18-27.
- 45 Swanston JS, Gacek E, Guy DC, **Newton AC**, 2000. Malting performance of barley cultivar mixtures from the UK and Poland. *Journal of the Institute of Brewing* 106, 239-243.
- 44 **Newton AC**, Guy DC, Gaunt RE, Thomas WTB, 2000. The effect of powdery mildew inoculum pressure and fertiliser level on disease tolerance in spring barley. *Journal of Plant Diseases and Protection* 107, 67-73.
- 43 Caten CE, **Newton AC**, 2000. Variation in cultural characteristics, pathogenicity, vegetative compatibility and electrophoretic karyotype within field populations of *Stagonospora nodorum*. *Plant Pathology* 49, 219-226.
- 42 **Newton AC**, Toth IK, 1999. Helper bacteria and pathogenicity assessments. *New Phytologist* 144, 385-386.
- 41 Baker SJ, **Newton AC**, Gurr SJ, 2000. Cellular characteristics of temporary partial breakdown of *mlo*-resistance in barley to powdery mildew. *Physiological and Molecular Plant Pathology* 56, 1-11.
- 40 **Newton AC**, Hackett CA, Guy DC, 1998. Diversity and complexity of *Erysiphe graminis* f.sp. *hordei* collected from barley cultivar mixtures or barley plots treated with a resistance elicitor. *European Journal of Plant Pathology* 104, 925-931.
- 39 **Newton AC**, Guy DC, 1998. Exploration and exploitation strategies of powdery mildew on barley cultivars with different levels of nutrients. *European Journal of Plant Pathology* 104, 829-833.
- 38 Baker SJ, **Newton AC**, Crabb D, Guy, DC, Jefferies RA, MacKerron DKL, Thomas WTB, Gurr SJ, 1998. Temporary partial breakdown of *mlo*-resistance in spring barley by sudden relief of soil water-stress under field conditions: the effects of genetic background and *mlo* allele. *Plant Pathology* 47, 401-410.
- 37 **Newton AC**, Swanston JS, Guy DC, Ellis RP, 1998. The effect of cultivar mixtures on malting quality in winter barley. *Journal of the Institute of Brewing* 104, 41-45.
- 36 **Newton AC**, Osbourn AE, Caten CE, 1998. Heterokaryosis and vegetative incompatibility in *Stagonospora nodorum*. *Mycologia* 90, 215-225.
- 35 **Newton AC**, Dashwood EP, 1998. The interaction of humidity and resistance elicitors on expression of polygenic resistance of barley to mildew. *Journal of Phytopathology* 146, 123-130.

- 34 **Newton AC**, Thomas WTB, Guy DC, Gaunt R, 1998. The interaction of fertiliser treatment with tolerance to powdery mildew in spring barley. *Field Crops Research* 55, 45-56.
- 33 **Newton AC**, Ellis RP, Hackett CA, Guy DC, 1997. The effect of component number on *Rhynchosporium secalis* infection and yield in mixtures of winter barley cultivars. *Plant Pathology* 46, 930-938.
- 32 Jennings JM, **Newton AC**, Buck KW, 1997. Detection of polymorphism in *Puccinia hordei* using RFLP and RAPD markers, differential cultivars, and analysis of the intergenic spacer region of rDNA. *Journal of Phytopathology* 145, 511-519.
- 31 Lyon GD, **Newton AC**, 1997. Do resistance elicitors offer new opportunities in integrated disease control strategies? *Plant Pathology* 46, 636-641.
- 30 **Newton AC**, Young IM, 1996. Temporary partial breakdown of Mlo-resistance in spring barley by the sudden relief of soil water stress. *Plant Pathology* 45, 970-974.
- 29 Rohe M, Searle J, **Newton AC**, Knogge W, 1996. Transformation of the plant pathogenic fungus *Rhynchosporium secalis*. *Current Genetics* 29, 587-590.
- 28 Hackett CA, Reglinski T, **Newton AC**, 1995. Use of additive models to represent trends in barley field trials. *Annals of Applied Biology* 127, 391-403.
- 27 Reglinski T, Lyon GD, **Newton AC**, 1995. The control of *Botrytis cinerea* and *Rhizoctonia solani* on lettuce using elicitors extracted from yeast cell walls. *Journal of Plant Disease and Protection* 102, 257-266.
- 26 **Newton AC**, Andrivon D, 1995. Assumptions and implications of current gene-for-gene hypotheses. *Plant Pathology* 44, 607-618.
- 25 Lyon GD, Reglinski T, **Newton AC** 1995. Novel disease control chemicals: The potential to 'immunize' plants against infection. *Plant Pathology* 44, 407-427.
- 24 **Newton AC**, Hackett CA, 1994. Subjective components of mildew assessment on spring barley. *European Journal of Plant Pathology* 100, 395-412.
- 23 Reglinski T, Lyon GD, **Newton AC**, 1994. Induction of resistance mechanisms in barley by yeast-derived elicitors. *Annals of Applied Biology* 124, 509-517.
- 22 **Newton AC**, Thomas WTB, 1994. Detection of tolerance of barley cultivars to infection by powdery mildew (*Erysiphe graminis* f.sp. *hordei*). *Euphytica* 75, 179-187.
- 21 Goleniewski G, **Newton AC**, 1994. Modelling the spread of fungal diseases using a nearest neighbour approach: the effect of geometrical arrangement. *Plant Pathology* 43, 631-643.
- 20 Reglinski T, **Newton AC**, Lyon GD, 1994. Assessment of the ability of yeast-derived elicitors to control barley powdery mildew in the field. *Journal of Plant Disease and Protection* 101, 1-10.
- 19 **Newton AC**, Thomas WTB, 1993. Evaluation of sources of partial resistance to mildew in barley using enzyme linked immunosorbent assay and other assessment methods. *Euphytica* 66, 27-34.
- 18 **Newton AC**, Reglinski T, 1993. An enzyme-linked immunosorbent assay for quantifying mildew biomass. *Journal of Plant Disease and Protection* 100, 176-179.
- 17 **Newton AC**, Thomas WTB, 1993. The interaction of either an effective or a defeated major gene with non-specific resistance on mildew infection (*Erysiphe graminis* f.sp. *hordei*) and yield in mixtures of barley. *Journal of Phytopathology* 139, 268-274.
- 16 **Newton AC**, 1993. The effect of humidity on expression of partial resistance to powdery mildew in barley. *Plant Pathology* 42, 364-367.
- 15 **Newton AC**, 1992. Selection for aggressiveness towards partial resistance in barley by *Erysiphe graminis* f.sp. *hordei*. *Journal of Phytopathology* 136, 165-169.
- 14 **Newton AC**, Thomas WTB, 1992. The effect of specific and non-specific resistance in mixtures of barley genotypes on infection by mildew (*Erysiphe graminis* f.sp. *hordei*) and on yield. *Euphytica* 59, 73-81.
- 13 **Newton AC**, Caten CE, 1991. Characteristics of strains of *Septoria nodorum* adapted to wheat or to barley. *Plant Pathology* 40, 546-553.
- 12 **Newton AC**, McGurk L, 1991. Recurrent selection for adaptation of *Erysiphe graminis* f.sp. *hordei* to partial resistance and the effect on expression of partial resistance of barley. *Journal of Phytopathology* 132, 328-338.
- 11 **Newton AC**, 1991. Isozyme variability in isolates of some facultative phytopathogenic fungi. *Journal of Phytopathology* 131, 199-204.
- 10 **Newton AC**, 1990. Detection of components of partial resistance to mildew (*Erysiphe graminis* f.sp. *hordei*) incorporated into advanced breeding lines using measurement of fungal cell wall sterol. *Plant Pathology* 39, 598-602.

- 9 **Newton AC**, 1989. Measuring the sterol content of barley leaves infected with powdery mildew as a means of assessing partial resistance to *Erysiphe graminis* f.sp. *hordei*. *Plant Pathology* 38, 534-540.
- 8 **Newton AC**, 1989. Genetic adaptation of *Erysiphe graminis* f.sp. *hordei* to barley with partial resistance. *Journal of Phytopathology* 126, 133-148.
- 7 **Newton AC** Crute IR, 1989. A consideration of the genetic control of species specificity in fungal plant pathogens and its relevance to a comprehension of the underlying mechanisms. *Biological Reviews* 64, 35-50.
- 6 **Newton AC**, 1988. Somatic recombination in *Rhynchosporium secalis*. *Plant Pathology* 38, 71-74.
- 5 **Newton AC**, 1988. Mutant instability in *Septoria nodorum*. *Transactions of the British Mycological Society* 91, 607-610.
- 4 **Newton AC**, Caten CE, 1988. Auxotrophic mutants of *Septoria nodorum* isolated by direct screening and by selection for resistance to chlorate. *Transactions of the British Mycological Society* 90, 199-207.
- 3 **Newton AC**, 1987 Occurrence of double-stranded RNA and virus-like particles in *Septoria nodorum*. *Transactions of the British Mycological Society* 88, 113-116.
- 2 **Newton AC**, Johnson R, Caten CE, 1986. Attempted somatic hybridization of *Puccinia striiformis* f.sp. *tritici* and *P. striiformis* f.sp. *hordei*. *Plant Pathology* 35, 108-113.
- 1 **Newton AC**, Caten CE, Johnson R, 1985. Variation for isozymes and double-stranded RNA among isolates of *Puccinia striiformis* and two other cereal rusts. *Plant Pathology* 34, 235-247.

Books and invited chapters in books:

- Induced Resistance for Plant Defence: a sustainable approach to crop protection, Eds: Dale Walters, Gary D Lyon & Adrian C Newton, 2007. Blackwell Science, Oxford, UK. <http://www.wiley.com/WileyCDA/WileyTitle/productCd-140513447X.html>
- Induced Resistance for Plant Defence: a sustainable approach to crop protection, Eds: Dale Walters, Gary D Lyon & Adrian C Newton, Second edition, 2014. Blackwell Science, Oxford, UK.

Chapters:

- 15 **Newton AC**, Creissen HE, Havis ND, Burnett FJ, 2019. Integrated disease management of barley (chapter 11). In: Achieving sustainable cultivation of barley, eds. Dr Glen Fox and Prof Chengdao Li. Burleigh Dodds Science Publishing Limited. <http://dx.doi.org/10.19103/AS.2019.0060.18> pp 323-352.
- 14 **Lyon GD, Newton AC, Walters DR**, 2014. Induced resistance in crop protection: the future, drivers and barriers. In: Induced Resistance for Plant Defence: a sustainable approach to crop protection, Eds: Dale Walters, Gary D Lyon & Adrian C Newton, Second edition, 2014. Blackwell Science, Oxford, UK.
- 13 **Newton AC**, Pons-Kühnemann J, 2014. Induced resistance in natural ecosystems and pathogen population biology: exploiting interactions. In: Induced Resistance for Plant Defence: a sustainable approach to crop protection, Eds: Dale Walters, Gary D Lyon & Adrian C Newton, Second edition, 2014. Blackwell Science, Oxford, UK.
- 12 **Newton AC**, Aker T, Baresel JP, Bebeli P, Bettencourt E, Bladenopoulos KV, Czembor JH, Fasoula DA, Katsiotis A, Koutis K, Koutsika-Sotiriou M, Kovacs G, Larsson H, Pinheiro de Carvalho MAA, Rubiales D, Russell J, dos Santos TMM, Vaz Patto MC, 2011. Cereal Landraces for Sustainable Agriculture: A Review. (Chapter 10.) E. Lichtfouse et al. (eds.), Sustainable Agriculture: Volume 2, https://doi.org/10.1007/978-94-007-0394-0_10.
- 11 **Swanston JS, Newton AC**, 2009. Growing wheat for high alcohol – homogeneous and heterogeneous approaches. In: Wheat Crops: Growth, Fertilization and Yield, Frank Columbus (ed). Nova Science Publishers, Inc., Hauppauge, New York, USA.
- 10 **Bingham IJ, Newton AC**, 2009. Crop tolerance of foliar pathogens: possible mechanisms and potential for exploitation. In: Disease control in crops – Biological and environmentally friendly approaches, Edited by Dale Walters, Wiley-Blackwell, Chichester, UK, pp142-161.
- 9 **Newton AC**, 2009. Plant disease control through the use of variety mixtures. In: Disease control in crops – Biological and environmentally friendly approaches, Edited by Dale Walters, Wiley-Blackwell, Chichester, UK, pp162-171.
- 8 **Walters D, Lyon GD, Newton AC**, 2007. Induced resistance in crop protection: the future, drivers and barriers. In: Induced Resistance for Plant Defence: a sustainable approach to crop

protection, Eds: Dale Walters, Gary D Lyon & Adrian C Newton, pp. 243-250. Blackwell Publishing, Oxford, UK.

- 7 **Newton AC**, Pons-Kühnemann J, 2007. Induced resistance in natural ecosystems and pathogen population biology: exploiting interactions. In: *Induced Resistance for Plant Defence: a sustainable approach to crop protection*, Eds: Dale Walters, Gary D Lyon & Adrian C Newton, pp. 133-142. Blackwell Publishing, Oxford, UK.
- 6 **Newton AC**, McRoberts N, Hughes G, 2006. Information technology in plant disease epidemiology. In: *The Epidemiology of Plant Diseases, Second Edition*, Ed: D Gareth Jones & BM Cooke, pp. 335-356. Kluwer Academic Publishers, Dordrecht.
- 5 Lyon GD, **Newton AC**, 1999. Implementation of elicitor mediated induced resistance in agriculture. In: *Induced plant defenses against pathogens and herbivores*, eds: Anurag A. Agrawa, Sadik Tuzun, Elisabeth Bent, pp. 299-318. APS Press, American Phytopathological Society, St Paul, Minnesota.
- 4 **Newton AC**, Gaunt RE, 1998. Information technology in epidemiology. In: *The Epidemiology of Plant Diseases*, Ed: D Gareth Jones, pp. 278-292. Kluwer Academic Publishers, Dordrecht.
- 3 **Newton AC**, 1997. Prospects for the development of information technology in plant pathology. In: *Information Technology, Plant Pathology and Biodiversity*, Ed: P Bridge, P Jeffries, D R Morse and P R Scott, pp. 129-134. CAB International, Wallingford, Oxford.
- 2 **Newton AC**, 1997. Cultivar mixtures in intensive agriculture. In: *Gene-for-gene relationship in plant parasite interactions*. Eds: I R Crute, J Burdon and E Holub, pp. 65-80. CAB International, Wallingford, Oxford.
- 1 **Newton AC**, 1987. Markers in pathogen populations. In: *Genetics and Plant Pathogenesis*. (ed. P.R. Day G.J. Jellis), pp.187-194. Blackwells Scientific Publications, Oxford.