Adrian C Newton - Publication list

Last updated: February 2nd 2011

Refereed publications:

80 Newton AC, Johnson SN, Gregory PJ, 2011. Implications of climate change on diseases, crop yields and food security. Euphytica (in press, doi: 10.1007/s10681-011-0359-4).

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 (in press).

77 Thirugnanasambandam A, Wright KM, Whisson SC, Atkins SD, Newton AC, 2011. Infection of Rrs1 barley by an incompatible race of the fungus, *Rhynchosporium secalis*, expressing the green fluorescent protein. Plant Pathology (in press, doi: 10.1111/j.1365-3059.2010.02393.x).

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.

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70 Newton AC, Begg G, Swanston JS, 2009. Deployment of diversity for enhanced crop function. Annals of Applied Biology 154, 309-322.

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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.

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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.
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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.
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with emphasis on disease resistance. Agronomie: Plant Genetics and Breeding 20, 813-837.
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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.
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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.
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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.
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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.
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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.

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Invited chapters in books:

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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.

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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.

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Non-refereed publications and knowledge exchange:

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248 Bengough G, Hallett P, McKenzie B, Valentine T, Newton AC, 2010. Determining the phenotypic basis of differential cultivar response to soil physical constraints in winter and spring barley. SSCR presentation 21st October 2010 and written report on project for website.

247 Gravouil C, Fountaine J, Macrae A, Hein I, Dickinson M, Newton AC, 2010. Characterisation of barley (*Hordeum vulgare*) phyllosphere. Poster and abstract: 9th International Symposium on Leaf Surface Ecology, Corvalis, 15-18 August 2010.

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239 Davis, J., Armengaud, P., Newton, A.C., White, P.J. & Amtmann, A. 2009. Potassium deficiency and JA-dependent responses to biotic stress in barley. University of Glasgow Post Graduate Symposium 2009, Glasgow, UK, 9 June 2009 (Poster).

238 Davis, J., Armengaud, P., Newton, A.C., White, P.J. & Amtmann, A. 2009. Potassium deficiency and defence signalling. Regulatory Oxylipins: An International Symposium, Lausanne, Switzerland, 4-6 June 2009 (Poster).

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233 Newton AC, Atkins SD, Fitt BDL, Fraaije B, Looseley M, 2010. The epidemiological importance of asymptomatic infection of winter barley by *Rhynchosporium secalis* and its consequences for crop protection and breeding. Abstract: 9th Conference of the European Foundation for Plant Pathology 'Integrated Plant Disease Management', Évora, Portugal, 15-18 November 2010.

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223 Newton AC, Lyon G, Begg G, Zhan J, Guy D, Walters D, 2009. Deployment strategies for crops with inducible resistance. In: Induced resistance in plants against insects and diseases - Proceedings of the IOBC/wprs joint working group meetings: "Induced resistance to plants against insects and diseases" and "Breeding for Resistance to Pests and Diseases". Crete, 27-29 April 2006, IOBC/wprs Bulletin 44, 131-135.

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221 Fountaine JM, Gravouil C, Harling R, Shepherd T, Taylor J, Dickinson M, Newton AC, 2009. Leaf wax and cultivar effects on phylloplane organisms and disease in barley. Association of Applied Biologists conference: International Conference on Positive Plant Microbial Interactions in Relation to Plant Performance and Ecosystem Function at: The Olde Barn Hotel, Grantham, Lincs, UK, 15-16 December 2009.

220 George TS, Brown LK, Newton AC, Hallett PD, Thomas W, White PJ, 2009. Impact of soil tillage on the robustness of the genetic component of variation in phosphorus (P) use efficiency in barley (*Hordeum vulgare* L.). 16th International Plant Nutrition Colloquium (IPNC), Late 2009.

219 Atkins S, Fitt B, Lucas J, Fraaje B, Newton AC, 2009. The enemy within: Rhynchosporium on barley. Cereals 2009, Royston, Cambridgeshire, 10-11 June 2009, poster.

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217 Newton AC, 2009. Climate change research at SCRI. SCRI Annual Report for 2008, 62-63.

216 Newton AC, Exploiting diversity in cereal production. SSCR-CROPS conference 'Farming in Tough Times'. Battleby, Perth, 17th February.

215 Newton AC, 2009. Book review: Plant Pathology: Concepts and Laboratory Exercises. Second Edition, edited by RN Trigiano, MT Windham & AS Windham. CRC Press.

214 Gregory PJ, Johnson SN, Newton AC, Ingram JSI, 2008. Climate change: the challenge for international agriculture. In: Halford N, Jones HD, Lawlor D, (Eds.) Effects of Climate Change on Plants: Implications for Agriculture. Aspects of Applied Biology 88, 1.

213 Matthews R, Newton A, Ellis C, Moran D, Glasbey C, Skuce P, 2008. Integrating climate change research across the Main Research Providers in Scotland. (Discussion paper). Main Research Providers Cross Cutting Theme for Climate Change Group. 8 pp. http://openscotland.gov.uk/Publications/2008/05/15115150/13.

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208 Newton AC, Guy DC, Marshall B, Zhan J, Hallett PD, 2008. Deployment of disease resistance in barley: theoretical expectations, on farm mixing and interactions with cultivation methods. International Barley Genetics Symposium, Alexandria, Egypt 5th-10th April 2008.

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