

Professor Philip White

Recent refereed publications

2008

- Hammond, J.P., King, G.J., Astley, D., Bowen, H.C., Meacham, M.C., Mead, A., Pink, D.A.C., Teakle, G.R., Hayden, R.M., Spracklen, W.P., **White, P.J.** 2008. Shoot calcium (Ca) and magnesium (Mg) concentrations differ between subtaxa, are highly heritable, and associate with potentially pleiotropic loci in *Brassica oleracea*. **Plant Physiology** **146**, 1707-1720.
- Broadley, M.R., **White, P.J.**, Hammond, J.P., Graham, N.S., Bowen, H.C., Emmerson, Z.F., Fray, R.G., Iannetta, P.P.M., McNicol, J.W., May, S.T. 2008. Evidence of neutral transcriptome evolution in plants. **New Phytologist** **180**, 587-593.
- Hammond, J.P., **White, P.J.** 2008. Sucrose transport in the phloem: integrating root responses to phosphorus starvation. **Journal of Experimental Botany** **59**, 93-109.
- Qi, Z., Hampton, C.R., Shin, R., Barkla, B.J., **White, P.J.**, Schachtman, D.P. 2008. The high affinity K⁺ transporter AtHAK5 plays a physiological role *in planta* at very low K⁺ concentrations and provides a caesium uptake pathway in *Arabidopsis*. **Journal of Experimental Botany** **59**, 595-607.

2007

- Broadley, M.R., **White, P.J.**, Hammond, J.P., Zelko, I., Lux, A. 2007. Tansley Review. Zinc in plants. **New Phytologist** **173**, 677-702
- Chope, G.A., Terry, L.A., **White, P.J.** 2007. The effect of 1-methylcyclopropene (1-MCP) on the physical and biochemical characteristics of onion cv. SS1 bulbs during storage. **Postharvest Biology and Technology** **44**, 131-140.
- Chope, G.A., Terry, L.A., **White, P.J.** 2007. The effect of the transition between controlled atmosphere and regular atmosphere storage on bulbs of onion cultivars SS1, Carlos and Renate. **Postharvest Biology and Technology** **44**, 228-239.
- Chope, G.A., Terry, L.A., **White, P.J.** 2007. Preharvest application of exogenous abscisic acid (ABA) or an ABA analogue does not affect endogenous ABA concentration of onion bulbs. **Plant Growth Regulation** **52**, 117-129.
- Graham, N.S., Broadley, M.R., Hammond, J.P., **White, P.J.**, May, S.T. 2007. Optimising the analysis of transcript data using high density oligonucleotide arrays and genomic DNA-based probe selection. **BMC Genomics**, 8:344.

- Hermans, C., Hammond, J.P., Verbruggen, N., **White, P.J.** 2007. Response to Andrews *et al.*: correlations and causality. **Trends in Plant Science** **12**, 532-533.
- Watanabe, T., Broadley, M.R., Jansen, S., **White, P.J.**, Takada, J., Satake, K., Takamatsu, T., Tuah, S.J., Osaki, M. 2007. Evolutionary control of leaf element composition in plants. **New Phytologist** **174**, 516-523.
- **White, P.J.**, Bowen, H.C., Marshall, B., Broadley, M.R. 2007. Extraordinarily high leaf selenium to sulphur ratios define 'Se accumulator' plants. **Annals of Botany** **100**, 111-118.
- Zhang, K., Greenwood, D.J., **White, P.J.**, Burns, I.G. 2007. A dynamic model for the combined effects of N, P and K fertilizers on yield and mineral composition; description and experimental test. **Plant and Soil** **298**, 81-98.

2006

- Amtmann, A., Hammond, J.P., Armengaud, P., **White, P.J.** 2006. Nutrient sensing and signalling in plants: potassium and phosphorus. **Advances in Botanical Research** **43**, 209-257.
- Broadley, M.R., Mead, A., **White, P.J.** 2006. Reply to Davis (2006) commentary on "Historical variation in the mineral composition of edible horticultural products". **Journal of Horticultural Science & Biotechnology** **81**, 554-555.
- Broadley, M.R., **White, P.J.**, Bryson, R.J., Meacham, M.C., Bowen, H.C., Johnson, S.E., Hawkesford, M.J., McGrath, S.P., Zhao, F.-J., Breward, N., Harriman, M., Tucker, M. 2006. Biofortification of UK food crops with selenium. **Proceedings of the Nutrition Society** **65**, 169-181.
- Chope, G.A., Terry, L.A., **White, P.J.** 2006. Effect of controlled atmosphere storage on abscisic acid concentration and other biochemical attributes of onion bulbs. **Postharvest Biology and Technology** **39**, 233-242.
- Greenwood, D.J., Stellacci, A.M., Meacham, M.C., Mead, A., Broadley, M.R., **White, P.J.** 2006. Relative values of physiological parameters of P response of different genotypes can be measured in experiments with only two P treatments. **Plant and Soil** **281**, 159-172.
- Hammond, J.P., Bowen, H.C., **White, P.J.**, Mills, V., Pyke, K.A., Baker, A.J.M., Whiting, S.N., May, S.T., Broadley, M.R. 2006. A comparison of the *Thlaspi caerulescens* and *Thlaspi arvense* shoot transcriptomes. **New Phytologist** **170**, 239-260.
- Hermans, C., Hammond, J.P., **White, P.J.**, Verbruggen, N. 2006. How do plants respond to nutrient shortage by biomass allocation? **Trends in Plant Science** **11**, 610-617.

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- Greenwood, D.J., Stellacci, A.M., Meacham, M.C., Broadley, M.R., **White, P.J.** 2005. Phosphorus response components of different *Brassica oleracea* genotypes are reproducible in different environments. **Crop Science** **45**, 1728-1735.
- Hammond, J.P., Broadley, M.R., Craigon, D.J., Higgins, J., Emmerson, Z., Townsend, H., **White, P.J.**, May, S.T. 2005. Using genomic DNA-based probe-selection to improve the sensitivity of high-density oligonucleotide arrays when applied to heterologous species. **Plant Methods** **1**, 10 (9 Nov 2005).
- Hampton, C.R., Broadley, M.R., **White, P.J.** 2005. Short Review: the mechanisms of radiocaesium uptake by *Arabidopsis* roots. **Nukleonika** **50**, S3-S8.
- Ho, L., **White, P.J.** 2005. A cellular hypothesis for the induction of blossom-end rot in tomato fruit. **Annals of Botany** **95**, 571-581.
- Hodson, M.J., **White, P.J.**, Mead, A., Broadley, M.R. 2005. Phylogenetic variation in the silicon composition of plants. **Annals of Botany** **96**, 1027-1046.
- Morgan, J.A.W., Bending, G.D., **White, P.J.** 2005. Biological costs and benefits to plant-microbe interactions in the rhizosphere. **Journal of Experimental Botany** **56**, 1729-1739.
- **White, P.J.**, Broadley, M.R. 2005. Historical variation in the mineral composition of edible horticultural products. **Journal of Horticultural Science and Biotechnology** **80**, 660-667.
- **White, P.J.**, Broadley, M.R. 2005. Biofortifying crops with essential mineral elements. **Trends in Plant Science** **10**, 586-593.
- **White, P.J.**, Broadley, M.R., Greenwood, D.J., Hammond, J.P. 2005. **Proceedings of International Fertiliser Society 568**. Genetic modifications to improve phosphorus acquisition by roots. IFS: York, UK. ISBN 0853102058.

2004

- Beresford, N.A., Broadley, M.R., Howard, B.J., Barnett, C.L., **White, P.J.** 2004. Estimating radionuclide transfer to wild species - data requirements and availability for terrestrial ecosystems. **Journal of Radiological Protection** **24**, A89-A103.
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- Payne, K.A., Bowen, H.C., Hammond, J.P., Hampton, C.R., Lynn, J.R., Mead, A., Swarup, K., Bennett, M.J., **White, P.J.**, Broadley, M.R. 2004. Natural genetic variation in caesium (Cs) accumulation by *Arabidopsis thaliana*. **New Phytologist** **162**, 535-548.
- **White, P.J.** 2004. Calcium signals in root cells: the roles of plasma membrane calcium channels. **Biologia** **59/S13**, 77-83.
- **White, P.J.**, Bowen, H.C., Parmaguru, P., Fritz, M., Spracklen, W.P., Spiby, R.E., Meacham, M.C., Mead, A., Harriman, M., Trueman, L.J., Smith, B.M., Thomas, B., Broadley, M.R. 2004. Interactions between selenium and sulphur nutrition in *Arabidopsis thaliana*. **Journal of Experimental Botany** **55**, 1927-1937.