

Appendix 2

Journal papers

Kirkegaard, J.A. and Lilley, J.M. (2007) Root penetration rate - a benchmark to identify soil and plant limitations to rooting depth in wheat. *Australian Journal of Experimental Agriculture* 47: 590-602.

Angus, J.F., Bolger, T.P., Kirkegaard, J.A. and Peoples, M.B. (2006) Nitrogen mineralisation in relation to previous crops and pastures. *Australian Journal of Soil Research* 44: 355-365.

Bruce, S.E., Ryan, M.H., Kirkegaard, J.A. and Pratley, J. (2006) Improving the performance of canola in retained wheat stubble. *Australian Journal of Agricultural Research* 57: 1203-1212.

Bruce, S.E., Kirkegaard, J.A., Pratley, J. and Howe, G. (2006) Growth suppression of canola through wheat stubble I. Separating physical and biochemical causes in the field. *Plant and Soil* 281: 203-218.

Bruce, S.E., Ryan, M.H., Hely, S., Kirkegaard, J.A. and Pratley, J. (2006) Growth suppression of canola through wheat stubble II. Investigating impacts of hypocotyl elongation using simulated stubble. *Plant and Soil* 281: 219-231.

Kirkegaard, J.A., Robertson, M., Hamblin, P. and Sprague, S.J. (2006) Effect of blackleg and sclerotinia stem rot on canola yield in the high rainfall zone of southern New South Wales, Australia. *Australian Journal of Agricultural Research* 57: 201-212.

Murphy, D.V., Kirkegaard, J.A. and Mele, P.M. (2006) Soil biology in Australian farming systems. *Australian Journal of Soil Research* 44: 366-372.

Watt, M., Kirkegaard, J.A. and Passioura, J.B. (2006) Rhizosphere biology and crop productivity - a review. *Australian Journal of Soil Research* 44: 299-317.

Bruce, S.E., Kirkegaard, J.A., Pratley, J.E. and Howe, G.N. (2005) Impacts of retained wheat stubble on canola in southern New South Wales. *Australian Journal of Experimental Agriculture* 45: 421-433.

Rebetzke, G.J., Bruce, S.E., and Kirkegaard, J.A. (2005) Longer coleoptiles improve emergence through crop residues to increase seedling number and biomass in wheat (*Triticum aestivum* L.). *Plant and Soil* 272: 87-100.

Robertson, M.J. and Kirkegaard, J.A. (2005) Water use efficiency of dryland canola in an equi-seasonal rainfall environment. *Australian Journal of Agricultural Research* 56: 1373-1386.

Watt, M., Kirkegaard, J.A. and Rebetzke, G.J. (2005) A wheat genotype developed for rapid leaf growth copes well with the physical and biological constraints of unploughed soil. *Functional Plant Biology* 32: 695-706.

Simpfendorfer, S., Kirkegaard, J.A., Heenan, D.P., Lindbeck, K.D. and Murray, G.M. (2004) Impact of tillage on lupin growth and the incidence of pathogenic fungi in southern New South Wales. *Australian Journal of Experimental Agriculture* 44: 53-56.

Watt, M., McCully, M.E. and Kirkegaard, J.A. (2003) Soil strength and rate of root elongation alter the accumulation of *Pseudomonas* spp. and other bacteria in the rhizosphere of wheat. *Functional Plant Biology* 30: 483-491.

Simpfendorfer, S., Kirkegaard, J.A., Heenan, D.P. and Wong, P.T.W. (2002) Reduced early growth of direct-drilled wheat in southern NSW - role of inhibitory pseudomonads. *Australian Journal Agricultural Research* 53, 323-331.

Simpfendorfer, S., Kirkegaard, J.A., Heenan, D.P. and Wong, P.T.W. (2001) Involvement of deleterious rhizobacteria in the poor early growth of direct-drilled wheat: studies in intact cores. *Australian Journal Agricultural Research* 52, 845-853.

Kirkegaard, J.A., Munns, R., James, R.A. and Neate, S.M. (1999) Does water and phosphorus uptake limit leaf growth of Rhizoctonia-infected wheat seedlings? *Plant and Soil* 209, 157-166.

Angus, J.F., van Herwaarden, A.F., Fischer, R.A., Howe, G.N., Heenan, D.P. (1998) The source of mineral nitrogen for cereals in southeastern Australia. *Australian Journal of Agricultural Research* 49, 511-522.

James, R.A., Kirkegaard, J.A. and Munns, R. (1997) Contribution of Rhizoctonia to reduced seedling growth of direct drilled wheat: studies with intact cores. *Australian Journal of Agricultural Research* 48, 1231-9.

Kirkegaard, J.A. (1995) A review of trends in wheat yield response to conservation cropping in Australia. *Australian Journal of Experimental Agriculture* 35, 835-848.

Kirkegaard, J.A., Munns, R., James, R.A., Gardner, P.A. and Angus, J.F. (1995) Reduced growth and yield of wheat with conservation cropping. II. Soil biological factors limit growth under direct drilling. *Australian Journal of Agricultural Research* 46, 75-88.

Doube, B., Buckerfield, J. and Kirkegaard, J.A. (1994) Short term effects of tillage and stubble management on earthworm populations in cropping systems in southern New South Wales. *Australian Journal of Agricultural Research* 45, 1587-1600.

Gupta, V.V.S.R., Roper, M.M., Kirkegaard, J.A. and Angus, J.F. (1994) Changes in microbial biomass and organic matter levels during the first year of modified tillage and stubble management practices on a red earth. *Australian Journal of Soil Research* 32, 1339-54.

Kirkegaard, J.A., Angus, J.F., Gardner, P.A. and Müller, W. (1994) Reduced growth and yield of wheat with conservation cropping. I. Field studies in the first year of the cropping phase. *Australian Journal of Agricultural Research* 45, 511-28.

Angus, J.F. and Fischer, R.A. (1991) Grain and protein responses to nitrogen applied to wheat growing on a red earth. *Australian Journal of Agricultural Research* 42: 735-746.

Stein, J.A., Sageman, A.R., Fischer, R.A. and Angus, J.F. (1987) Soil nitrogen supply of wheat in relation to method of cultivation. *Soil Tillage Research* 10: 243-258.

Conference papers

Lilley, J.M., Probert, M. and Kirkegaard, J.A. (2004) Simulation of deep drainage under a 13-year crop sequence in southern NSW. In: Proceedings of the 4th International Crop Science Congress. Brisbane Australia. 2p. http://www.cropscience.org.au/icsc2004/poster/116/1306_lilleyjm.htm

Lilley, J.M., Kirkegaard, J.A., Robertson, M.J., Probert, M.E., Angus, J.F. and Howe, G. (2003) Simulating crop and soil processes in crop sequences in southern NSW. In: Proceedings of the 11th Australian Agronomy Conference. Geelong. 4p <http://www.regional.org.au/au/asa/2003/c/12/lilley.htm>

Kirkegaard, J.A., Howe, G.N., Simpfendorfer, S., Angus, J.F., Gardner, P.A. and Hutchinson, P. (2001) Poor wheat yield response to conservation cropping: causes and consequences during 10 years of the Harden Tillage Trial. In: Proceedings of the 10th Australian Agronomy Conference. Hobart. 4p. <http://www.regional.org.au/au/asa/2001/4/c/kirkegaard.htm>

Watt, M., Kirkegaard, J.A., Simpfendorfer, S., Rebetzke, G. and McCully, M.E. (2001) Variation in wheat genotypes to no-till farming- responses to soil biology and structure. In: Proceedings of the 6th International Society of Root Research (ISRR) Symposium. Nagoya, Japan. pp 424-425.

Simpfendorfer, S., Kirkegaard, J.A. and Heenan, D.P. (1999) Soil microorganisms limit the early growth of direct-drilled wheat in south-eastern Australia In: Proceedings of the 1st Australasian Soil-Borne Disease Symposium (Ed. RC Magarey) Gold Coast pp 35-6.

Simpfendorfer, S., Kirkegaard, J.A. and Heenan, D.P. (1998) Soil biological factors limiting the early growth of no-till wheat. In: 'Agronomy - Growing a Greener Future' (Eds D.L. Machalk and J.E. Pratley). Proceedings of the 9th Australian Agronomy Conference, Wagga Wagga pp 533.

Simpfendorfer, S., Kirkegaard, J.A., Wong, P.T.W. and Heenan, D.P. (1998) Effect of tillage on rhizosphere microbial populations, early growth and grain yield of wheat throughout south eastern NSW. In: 'Agronomy - Growing a Greener Future' (Eds D.L. Machalk and J.E. Pratley). Proceedings of the 9th Australian Agronomy Conference, Wagga Wagga pp 553.

Gupta, V.V.S.R., Kirkegaard, J.A., and Roper M.M. (1996) Stubble retention, tillage and crop rotation effects on microbial biomass and activity on a red earth in NSW, Australia. In: Proceedings of the Australian and New Zealand Soils Conference. Melbourne.