

Referred Journal Papers

1. Meier, E.A., Thorburn, P.J., Bell, L.W., Harrison, M.T. and Biggs, J.S. (2018) Simulated greenhouse gas emissions from cropped lands match those from permanent pastures after accounting for livestock emissions. *Agricultural Systems*, submitted.
2. Gladish, D.W., Darnell, R., Haldankar, B. and Thorburn, P.J. (2018). Emulated multivariate global sensitivity analysis for complex computer models applied to agricultural simulators. *Journal of Agricultural, Biological, and Environmental Statistics*, submitted.
3. Wallach, D., Martre, P., Liu, B., Asseng, S., Ewert, F., Thorburn, P.J., van Ittersum, M., Aggarwal, P.K., Ahmed, M., Basso, B., Biernath, C., Cammarano, D., Challinor, A.J., De Sanctis, G., Dumont, B., Eyshi Rezaei, E., Fereres, E., Fitzgerald, G.J., Gao, Y., Garcia-Vila, M., Gayler, S., Girousse, C., Hoogenboom, G., Horan, H., Izaurralde, R.C., Jones, C.D., Kassie, B.T., Kersebaum, K.C., Klein, C., Koehler, A.K., Maiorano, A., Minoli, S., Müller, C., Naresh Kumar, S., Nendel, C., O’Leary, G.J., Palosuo, T., Priesack, E., Ripoche, D., Rötter, R.P., Semenov, M.A., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Wolf, J., and Zhang, Z. (2018) Multi-model ensembles improve predictions of crop-environment-management interactions. *Global Change Biology*, in press
4. Keating, B.A. and Thorburn, P.J. (2018). Modelling crops and cropping systems – evolving purpose, practice and prospects. *European Journal of Agronomy* 100, in press.
5. Kandulu, J., Thorburn, P., Biggs, J and Verburg, K. (2018). Estimating economic and environmental trade-offs of managing nitrogen in Australian sugarcane systems taking agronomic risk into account. *Journal of Environmental Management* 223, 264–274.
6. Schaffelke, B., Fabricius, K., Kroon, F., Brodie, J., De’ath, G., Shaw, R., Tarte, D., Warne, M. AND Thorburn, P. (2018). Support for improved quality control but misplaced criticism of GBR science. *Marine Pollution Bulletin* 129, 357–363.
7. Fleming, A., Lim-Camacho, L., Taylor, B. and Thorburn, P. (2018). Is big data for big farming or for everyone? Perceptions in the Australian grains industry. *Agronomy for Sustainable Development* 38, 24-34.
8. Puntel, L.A., Sawyer, J.E., Barker, D.W., Thorburn, P., Castellano, M.J., Moore, K.J., Vanlooche, A., Heaton, E.A. and Archontoulis, S.V. (2018). A systems modeling approach to forecast corn economic optimum nitrogen rate. *Frontiers in Plant Science* 9, Article 436 (doi:10.3389/fpls.2018.00436).
9. Seidel, S.J., Palosuo, T., Thorburn, P.J. and Wallach, D. (2018). Towards improved calibration of crop models - where are we now and where should we go? *European Journal of Agronomy* 94, 25-35 (doi.org/10.1016/j.eja.2018.01.006).
10. Ruane, A., Rosenzweig, C., Asseng, S. Boote, K.J., Elliot, J., Ewert, F., Jones, J., Martre, P., McDermid, S., Muller, C., Sbyder, A. and Thorburn, P.J. (2017). An AgMIP framework for improved agricultural representation in integrated assessment models. *Environmental Research Letters* 12, 125003 (doi:10.1088/1748-9326/aa8da6).
11. Thorburn, P.J., Biggs, J.S., Palmer, J., Meier, E.A., Verburg, K. and Skocaj, D.M. (2017). Prioritizing crop management to increase nitrogen use efficiency in Australian sugarcane crops. *Frontiers in Plant Science* 8, Article 1504 (doi: 10.3389/fpls.2017.01504).
12. Dumbrell, N., Kragt, M., Meier, E.A., Biggs, J.S. and Thorburn, P.J. (2017). Greenhouse gas abatement costs are heterogeneous between Australian grain farms. *Agronomy for Sustainable Development* 37, 28-37.
13. Wang, E., Martre, P., Zhao, Z., Ewert, F., Maiorano, A., Rotter, R.P., Kimball, B.A., Ottman, M.J., Wall, G.W., White, J.W., Reynolds, M.P., Alderman, P.D., Aggarwal, P.K., Anothai, J., Basso, B., Biernath, C., Cammarano, D., Challinor, A., De Sanctis, G., Doltra, J., Fereres, E., Folberth, C., Garcia-Vila, M., Gayler, S., Hoogenboom, G., Hunt, L.A., Izaurralde, R.C., Jabloun, Jones, C.D., Kersebaum, K.C., Koehler, A-K., Liu, L., Muller, C., M., Kumar, S.N., Nendel, C., O’Leary, G., Olesen, J.E., Palosuo, T., Priesack, E., Rezaei, E.E., Ripoche, D., Ruane, A.C., Semenov, M.A., Shcherbak, I., Stockle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Thorburn, P.J., Waha, K., Wallach, D., Wang, Z., Wolf, J., Zhu, Y. and Asseng, S. 2017. The uncertainty of crop yield projections is reduced by improved temperature response functions. *Nature Plants* 3, paper 17102 (DOI: 10.1038/nplants.2017.102).

14. Palmer, J., Thorburn, P. J., Meier, E. A., Biggs, J. S., Whelan B., Singh, K., and Eyre, D. N. (2017) Management practices likely to provide greenhouse gas abatement in grain farms in New South Wales, Australia. *Crop and Pasture Science* 68, 390–400 (<http://dx.doi.org/10.1071/CP17026>).
15. Wallach, D. and Thorburn, P.J. (2017). Estimating uncertainty in crop model predictions: Current situation and future prospects. *European Journal of Agronomy* 88, A1–A7 (<http://dx.doi.org/10.1016/j.eja.2017.06.001>).
16. Wallach, D., Nissanka, S., Karunaratne, A., Weerakoon, W.M.W., Thorburn, P.J., Boote, K.J., Jones, J.W. (2017). Accounting for both parameter and model structure uncertainty in crop model predictions of phenology: A case study on rice. *European Journal of Agronomy*, 88, 53–62 (<http://dx.doi.org/10.1016/j.eja.2016.05.013>).
17. Vanuytrecht, E. and Thorburn, P.J. (2017). Crop responses to atmospheric CO₂ concentrations: diversity, parameterization and validation in crop simulation models. *Global Change Biology* 3, 1806–1820 (doi: 10.1111/gcb.13600).
18. Meier, E.A., Thorburn, P.J., Kragt, M., Dumbrell, N., Biggs, J.S., Hoyle, F. and van Rees, H. (2017). Greenhouse gas abatement on southern Australian grains farms: biophysical potential and financial impacts. *Agricultural Systems* 155, 147–157.
19. Palmer, J., Thorburn, P. J., Biggs, J. S., Dominati, E. J., Probert, M. E., Meier, E. A., Huth, N. I., Dodd, M., Snow, V., Larsen, J. R., and Parton, W. J. (2017) Nitrogen cycling from increased soil organic matter contributes both positively and negatively to ecosystem services in wheat agro-ecosystems. *Frontiers in Plant Science* 8, Article 731, DOI: 10.3389/fpls.2017.00731.
20. Maiorano, A., Martre, P., Senthold, A., Ewert, F., Muller, C., Rotter, R.P., Ruane, A.C., Semenov, M.A., Wallach, D., Wang, E., Alderman, P.D., Kassie, B.T., Biernath, C., Basso, B., Cammarano, D., Challinor, A.J., G., Doltra, J., Dumont, B., Rezaei, E., Gayler, S., Kimball, B.A., Koehler, A-K., Liu, B., O'Leary, G., Olesen, J.E., Ottman, M.J., Priesack, E., Reynolds, M.P., Stratonovitch, P., Streck, T., Thorburn, P.J., Waha, K., Wall, G.W., White, J.W., Zhao, Z., Zhu, Y. (2017). Crop model improvement reduces the uncertainty of the response to temperature of multi-model ensembles. *Field Crops Research* 202, 5-20
21. Liu, B., Asseng, S., Muller, C., Ewert, F., Elliot, J., Lobell, D.B., Martre, P., Ruane, A.C., Wallach, D., Jones, J.W., Rosenzweig, C., Aggarwal, P.K., Alderman, P.D., Anothai, J., Basso, B., Biernath, C., Cammarano, D., Challinor, A., Deryng, D., De Sanctis, G., Doltra, J., Fereres, E., Folberth, C., Garcia-Vila, M., Gayler, S., Hoogenboom, G., Hunt, L.A., Izaurralde, R.C., Jabloun, M., Jones, C.D., Kersebaum, K.C., Kimball, B.A., Koehler, A-K., Kumar, S.N., Nendel, C., O'Leary, G., Olesen, J.E., Ottman, M.J., Palosuo, T., Prasad, P.V.V., Priesack, E., Pugh, T.A.M., Reynolds, M.P., Rezaei, E.E., Rotter, R.P., Schmidt, E., Semenov, M.A., Shcherbak, I., Stehfest, E., Stockle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Thorburn, P.J., Waha, K., Wall, G.W., Wang, E., White, J.W., Wolf, J., Zhao, Z., Zhu, Y. (2016). Similar estimates of temperature impacts on global wheat yield by three independent methods. *Nature Climate Change* 6, 1130–1136 (DOI: 10.1038/NCLIMATE3115).
22. Jakku, E., Thorburn, P.J., Marshall, N.A., Dowd, A., Howden, S.M., Mendham, E., Moon, K. and Brandon, G. (2016). Learning the hard way: A case study of an agricultural company undertaking transformational adaptation to climate change. *Climatic Change* 137, 557–574.
23. Mielenz, H., Thorburn, P.J., Harris, R.H., Grace, P.R. and Officer, S.J. (2016). Mitigating large N₂O emissions from cropping systems after conversion from pasture – a modelling approach. *European Journal of Agronomy* 82, 254–267.
24. Mielenz, H., Thorburn, P.J., Harris, R.H., Officer, S.J., Li, G., Schwenke, G.D. and Grace, P.R. (2016). Nitrous oxide emissions from grain production systems across a wide range of environmental conditions in eastern Australia. *Soil Research* 45, 659-674.
25. Wallach, D., Thorburn, P.J., Asseng, S., Challinor, A., Ewert, F., Jones, J.W., Rötter, R. and Ruane, A. (2016). Estimating model prediction error: Should you treat predictions as fixed or random? *Environmental Modelling and Software* 84, 529-539 (<http://dx.doi.org/10.1016/j.envsoft.2016.07.010>).
26. Archontoulis, S.V., Huber, I., Miguez, F.E., Thorburn, P.J., Rogovska, N. and Laird, D.A. (2016). A model for mechanistic and system assessments of biochar effects on soils and crops and trade-offs. *GCB Bioenergy* 8, 1028–1045 (doi:10.1111/gcbb.12314).
27. Puntel, L.A., Sawyer, J.E., Barker, D.W., Dietzel, R., Poffenbarger, H., Castellano, M.J., Moore, K.J., Thorburn, P. and Archontoulis, S.V. (2016). Modeling long-term corn yield response to nitrogen rate and crop rotation. *Frontiers in Plant Science* 7, Article 1630. doi: 10.3389/fpls.2016.01630.

28. Meier, E.A. and Thorburn, P.J. (2016). Long term sugarcane crop residue retention offers limited potential to reduce nitrogen fertilizer rates in Australian wet tropical environments. *Frontiers in Plant Science* 7, Article 1017, doi: 10.3389/fpls.2016.01017.
29. Godde, C., Thorburn, P.J., Biggs, J.S. and Meier EA (2016). Understanding the impacts of soil, climate, and farming practices on soil organic carbon sequestration: A simulation study in Australia. *Frontiers in Plant Science*, 7 article 661, doi: 10.3389/fpls.2016.00661.
30. Kroon, F., Thorburn, P., Schaffelke, B. and Whitten, S. (2016). Towards protecting the Great Barrier Reef from land-based pollution. *Global Change Biology*, 22, 1985–2002 (doi: 10.1111/gcb.13262).
31. Mielenz, H., Thorburn, P.J., Scheer, C., De Antoni Migliorati, M., Grace, P.R. and Bell, M.J. (2016). Opportunities for mitigating nitrous oxide emissions in subtropical cereal and fiber cropping systems: A simulation study. *Agriculture Ecosystems and Environment*, 218, 11-27.
32. Ruane, A.C., Hudson, N.I., Asseng, S., Camarrano, D., Ewert, F., Martre, P., Boote, K.J., Thorburn, P.J., Aggarwal, P.K., Angulo, C., Basso, B., Bertuzzi, P., Biernath, C., Brisson, N., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Grant, R.F., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Kersebaum, K.C., Kumar, S.N., Nendel, C., O'Leary, G., Olesen, J.E., Osborne, T.M., Palosuo, T., Priesack, E., Ripoche, D., Rötter, R.P., Semenov, M.A., Shcherbak, I., Steduto, P., Stöckle, C.O., Stratonovitch, P., Streck, T., Supit, I., Travasso, M., Waha, K., Wallach, D., White, J.W. and Wolf, J. (2016). Multi-wheat model ensemble responses to interannual climate variability. *Environmental Modelling and Software*, 81, 86-101 (doi:10.1016/j.envsoft.2016.03.008).
33. Oliveira, A.P.P., Thorburn, P.J., Biggs, J.S., Lima, E., Anjos, L.H., Pereira, M.G. and Zanotti, N.E. (2016). The response of sugarcane to trash retention and nitrogen in the Brazilian coastal tablelands: A simulation study. *Experimental Agriculture*, 52, 69–86 (DOI: <http://dx.doi.org/10.1017/S0014479714000568>).
34. Chauhan, Y.S., Thorburn, P.J., Biggs, J.S. and Wright, G.C. (2015). Assessing agronomic benefits and risks associated with the Australian peanut industry's expansion into northern Australia under a changing climate. *Crop and Pasture Science*, 66, 1167–1179 (<http://dx.doi.org/10.1071/CP15068>).
35. Stanfill, B., Mielenz, H., Clifford, D. and Thorburn P. (2015). A simple approach to emulating complex computer models for global sensitivity analysis. *Environmental Modelling and Software*, 74, 140-155.
36. Marin, F.R., Thorburn, P.J., Nassif, D.S.P and Costa, L.G. (2015). Sugarcane model intercomparison: Structural differences and uncertainties under climate change. *Environmental Modelling and Software*, 72, 372-386 (doi:10.1016/j.envsoft.2015.02.019).
37. Makowski, D., Asseng, S., Ewert, F., Bassu, S., Durand, J.L., Li, T., Martre, P., Adam, M., Aggarwal, P.K., Angulo, C., Baron, C., Basso, B., Bertuzzi, P., Biernath, C., Boogaard, H., Boote, K.J., Bouman, B., Bregaglio, S., Brisson, N., Buis, S., Cammarano, D., Challinor, A., Confalonieri, R., Conijn, J.G., Corbeels, M., Deryng, D., De Sanctis, G., Doltra, J., Fumoto, T., Gaydon, D., Gayler, S., Goldberg, e., Grant, R., Grassini, P., Hatfield, J L., Hasegawa, T., Heng, L., Hoek, S., Hooker, J., Hunt, L., Ingwersen, J., Izaurralde, R., Jongschaap, R., Jones, J.W., Kemanian, R.A., Kersebaum, K.C., Kim, S.H., Lizaso, J., Marcaida, M., Mueller, C., Nakagawa, H., Kumar, S.N., Nendel, C., O'Leary, G., Olesen, J., Oriol, P., Osborne, T., Palosuo, T., Pravia, M.V., Priesack, E., Ripoche, D., Rosenzweig, C., Ruane, A.C., Ruget, F., Sau, F., Semenov, M., Shcherbak, I., Singh, B., Singh, U., Soo, H.K., Steduto, P., Stoeckle, C., Stratonovitch, P., Streck, T., Supit, I., Tang, L., Tao, F., Teixeira, E., Thorburn, P., Timlin, D., Travasso, M., Roetter, R., Waha, K., Wallach, D., White, J., Wilkens, P., Williams, J.W., Wolf, J., Yin, X., Yoshida, H., Zhang, Z. and Zhu, Y. (2015). A statistical analysis of three ensembles of crop model responses to temperature and CO₂ concentration. *Agricultural and Forest Meteorology*, 214-215, 483-493.
38. Kersebaum, K.C., Boote, K.J., Jorgenson, J.S., Nendel, C., Bindi, M., Frühauf, C., Gaiser, T., Hoogenboom, G., Kollas, C., Olesen, J.E., Rötter, R.P., Ruget, F., Thorburn, P.J., Trnka, M. and Wegehenkel, M. (2015). Analysis and classification of data sets for calibration and validation of agro-ecosystem models. *Environmental Modelling and Software*, 72, 402–417 (doi:10.1016/j.envsoft.2015.05.009).
39. Moore, A.D., Eckard, R.J., Thorburn, P.J., Grace, P.R., Wang, E. and Chen, D. (2015). Mathematical modelling for improved greenhouse gas balances, agro-ecosystems and policy development: lessons from the Australian experience. *WIREs Climate Change*, 5, 735-752 (doi: 10.1002/wcc.304).
40. Nissanka, S., Karunaratne, A., Perera, P., Weerakoon, W.M.W., Thorburn, P., Wallach, D. (2015). Calibration of the phenology sub model of APSIM-Oryza: going beyond goodness of fit.

41. Martre, P., Wallach, D., Asseng, S., Ewert, F., Jones, J.W., Rötter, R.P., Boote, K.J., Ruane, A.C., Thorburn, P.J., Cammarano, D., Hatfield, J.L., Rosenzweig, C., Aggarwal, P.K., Angulo, C., Basso, B., Bertuzzi, P., Biernath, C., Brisson, N., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Grant, R.F., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Kersebaum, K.C., Müller, C., Kumar, S.N., Nendel, C., O'leary, G., Olesen, J.E., Osborne, T.M., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M.A., Shcherbak, I., Steduto, P., Stöckle, C.O., Stratonovitch, P., Streck, T., Supit, Iwan, Tao, F., Travasso, M., Waha, K., White, J.W., Wolf, J. (2015). Multimodel ensembles of wheat growth: many models are better than one. *Global Change Biology*, 21, 911–925 (doi: 10.1111/gcb.12768).
42. Asseng, S., Ewert, F., Martre, P., Rotter, R.P., Lobell, D.B., Cammarano, D., Kimball, B.A., Ottman, M.J., Wall, G.W., White, J.W., Reynolds, M.P., Alderman, P.D., Prasad, P.V.V., Aggarwal, P.K., Anothai, J., Basso, B., Biernath, C., Challinor, A.J., De Sanctis, G., Doltra, J., Fereres, E., Garcia-Vila, M., Gayler, S., Hoogenboom, G., Hunt, L.A., Izaurralde, R.C., Jabloun, M., Jones, C.D., Kersebaum, K.C., Koehler, A-K., Muller, C., Kumar, S.N., Nendel, C., O'Leary, G., Olesen, J.E., Palosuo, T., Priesack, E., Rezaei, E., Ruane, A.C., Semenov, M.A., Shcherbak, I., Stockle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Thorburn, P.J., Waha, K., Wang, E., Wallach, D., Wolf, J., Zhao, Z., Zhu, Y. (2015). Rising temperatures reduce global wheat production. *Nature Climate Change*, 5, 143-147 (doi:10.1038/nclimate2470).
43. Holzworth, D., Snow, V., Janssen, S., Athanasiadis, I.N., Donatelli, M., Hoogenboom, G., White, J.W., Thorburn, P. (2014) Agricultural production systems modelling and software: current status and future prospects. *Environmental Modelling and Software*, 62, 327-350.
44. Wallach, D. and Thorburn, P.J. (2014). The error in agricultural systems model prediction depends of the variable being predicted. *Environmental Modelling and Software*, 62 487-494.
45. Holzworth, D.P., Huth, N.I., deVoil, P.G., Zurcher, E.J., Herrmann, N.I., McLean, G., Chenu, K., van Oosterom, E., Snow, V.O., Murphy, C., Moore, A.D., Brown, H.E., Whish, J.P.M., Verrall, S., Fainges, J., Bell, L.W., Peake, A.S., Poulton, P.L., Hochman, Z., Thorburn, P.J., Gaydon, D.S., Dalgliesh, N.P., Rodriguez, D., Cox, H., Chapman, S., Doherty, A., Teixeira, E., Sharp, J., Cichota, R., Vogeler, I., Li, F.Y., Wang, E., Hammer, G.L., Robertson, M.J., Dimes, J., Whitbread, A.M., Hunt, J., van Rees, H., McClelland, T., Carberry, P.S., Hargreaves, J.N.G., MacLeod, N., McDonald, C., Harsdorf, J., Wedgwood, S. and Keating, B.A. (2014). APSIM - Evolution towards a new generation of agricultural systems simulation. *Environmental Modelling and Software*, 62 327-350.
46. Singels, A., Jones, M., Marin, F., Ruane, A. and Thorburn P. (2014). Predicting climate change impacts on sugarcane production at sites in Australia, Brazil and South Africa using the Canegro model. *Sugar Tech*, 16, 347–355 (DOI 10.1007/s12355-013-0274-1).
47. Marshall, N.A., Dowd, A.B., Fleming, A., Gambley, C., Howden, S.M., Jakku, E., Larsen, C., Marshall, P.A., Moon, K., Park, S.E. and Thorburn, P.J. (2014). Transformational capacity in Australian peanut farmers for better climate adaptation. *Agronomy for Sustainable Development*, 34, 583–591 (DOI:10.1007/s13593-013-0186-1).
48. Marin, F.R., Thorburn, P.J., Costa, L.G. and Otto, R. (2014). Simulating long-term effects of trash management on sugarcane yield for Brazilian cropping systems. *Sugar Tech* 16, 164-173 (DOI 10.1007/s12355-013-0265-2).
49. Van der Laan, M., Annandale, J.G., Bristow, K.L., Stirzaker, R.J., du Preez, C.C. and Thorburn, P.J. (2014). Modelling nitrogen leaching: Are we getting the right answer for the right reason? *Agricultural Water Management* 133, 74– 80
50. Thorburn, P.J., Wilkinson, S.N. and Silburn, D.M. (2013). Water quality in agricultural lands draining to the Great Barrier Reef: Review of causes, management and priorities. *Agriculture Ecosystems and Environment*, 180, 4-20 (<http://dx.doi.org/10.1016/j.agee>).
51. Thorburn, P.J. and Wilkinson, S.N. (2013). Conceptual frameworks for estimating the water quality benefits of improved agricultural management practices in large catchments. *Agriculture Ecosystems and Environment*, 180, 192-209 (doi:10.1016/j.agee.2011.12.021).
52. Biggs, J.S., Thorburn, P.J., Crimp, S.J., Masters, B. and Attard, S.J. (2013). Interactions between climate change and sugarcane management systems for improving water quality leaving farms in the Mackay-Whitsunday region, Australia. *Agriculture Ecosystems and Environment*, 180, 79-89 (doi:10.1016/j.agee.2011.11.00).

53. Davis, A.M., Thorburn, P.J., Lewis, S.E., Bainbridge, Z.T., Attard, S.J., Milla, R. and Brodie, J.E. (2013). Environmental impacts of fully irrigated sugarcane production: Herbicide run-off dynamics from farms and associated drainage systems. *Agriculture Ecosystems and Environment*, 180, 123-135 (doi:10.1016/j.agee.2011.06.019).
54. Cook, F.J., Knight, J.H., Silburn, D.M., Kookana, R.S. and Thorburn P.J. (2013). Upscaling from paddocks to catchments of pesticide mass and concentration in runoff. *Agriculture Ecosystems and Environment*, 180, 136-147 (doi:10.1016/j.agee.2011.08.009).
55. van Grieken, M.E., Thomas, C.R., Roebeling, P.C. and Thorburn P.J. (2013). Integrating economic drivers of social change in agricultural water quality improvement strategies. *Agriculture Ecosystems and Environment*, 180, 166-175 (doi:10.1016/j.agee.2011.06.013).
56. Asseng, S., Ewert, F., Rosenzweig, C., Jones, J.W., Hatfield, J.L., Ruane, A.C., Boote, K.J., Thorburn, P.J., Rötter, R.P., Cammarano, D., Brisson, N., Basso, B., Martre, P., Aggarwal, P.K., Angulo, C., Bertuzzi, P., Biernath, C., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Grant, R., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Kersebaum, K.C., Müller, C., Kumar, S.N., Nendel, C., O'Leary, G., Olesen, J.E., Osborne, T.M., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M.A., Shcherbak, I., Steduto, P., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., Wallach, D., White, J.W., Williams, J.R. and Wolf, J. (2013). Uncertainty in simulating wheat yields under climate change. *Nature Climate Change*, 3, 827-832 (doi:10.1038/nclimate1916).
57. Rosenzweig, C., Jones, J.W., Hatfield, J.L., Ruane, A.C., Boote, K.J., Thorburn, P.J., Antle, J., Nelson, G., Porter, C., Janssen, S., Asseng, S., Winter, J.M. and Greeley, A.P. (2013). The Agricultural Model Intercomparison and Improvement Project (AgMIP): Protocols and pilot studies. *Agricultural and Forest Meteorology*, 170, 166–182 (DOI: 10.1016/j.agrformet.2012.09.011).
58. Carroll, C., Waters, D., Vardy, S., Silburn, D.M., Attard, S., Thorburn, P.J., Davis, A.M., Schmidt, M., Wilson, B., Clark, A. (2012). A paddock to reef monitoring and modelling framework for the Great Barrier Reef: Paddock and catchment component. *Marine Pollution Bulletin*, 65, 136–149 (doi:10.1016/j.marpolbul.2011.11.022).
59. Webster, A.J., Bartley, R., Armour, J.D., Brodie, J.E. and Thorburn, P.J. (2012). Reducing dissolved inorganic nitrogen in surface runoff water from sugarcane production systems. *Marine Pollution Bulletin*, 65, 128–135 (doi: 10.1016/j.marpolbul.2012.02.023).
60. Thorburn, P.J., Meier, E.A., Collins, K. and Robertson, F.A. (2012). Changes in soil carbon sequestration, fractions and soil fertility in response to sugarcane residue retention are site-specific. *Soil and Tillage Research*, 120, 99–111 (10.1016/j.still.2011.11.009).
61. Thorburn, P.J., Biggs, J.S., Attard, S.J. and Kemei, J. (2011). Environmental impacts of irrigated sugarcane production: Nitrogen lost through runoff and leaching. *Agriculture Ecosystems and Environment*, 144, 1-12 (10.1016/j.agee.2011.08.003).
62. Thorburn, P.J., Jakku, E., Webster, A.J. and Everingham, Y.L. (2011). Agricultural decision support systems facilitating co-learning: a case study on environmental impacts of sugarcane production. *International Journal of Agricultural Sustainability*, 9, 322-333 (doi: 10.1080/14735903.2011.582359).
63. Thorburn, P.J., Biggs, J.S., Webster, A.J. and Biggs, I.M. (2011). An improved way to determine nitrogen fertiliser requirements of sugar cane crops to meet global environmental challenges. *Plant and Soil* 339: 51-67 (DOI: 10.1007/s11104-010-0406-2).
64. Park, S.E., Webster, A.J., Horan, H.L., James, A.T. and Thorburn, P.J. (2010). Legume rotation crops lessen the need for nitrogen fertiliser throughout the sugarcane cropping cycle, *Field Crops Research*, 119: 331-341.
65. Benn, K., Elder, J., Jakku, E. and Thorburn, P.J. (2010). The sugar industry's impact on the landscape of the Australian wet tropical coast. *Landscape Research*, 35: 613-632 (DOI: 10.1080/01426397.2010.519435).
66. Jakku, E. and Thorburn, P.J. (2010). A conceptual framework for guiding the participatory development of agricultural decision support systems. *Agricultural Systems* 103: 675-682.
67. Huth, N.I., Thorburn, P.J., Radford, B.J., Thornton, C.M. (2010). Impacts of fertilisers and legumes on N₂O and CO₂ emissions from soils in subtropical agricultural systems: A simulation study. *Agriculture Ecosystems and Environment*, 136: 351-357.
68. Thorburn, P.J., Biggs, J.S., Collins, K. and Probert, M.E. (2010). Using the APSIM model to estimate nitrous oxide emissions from diverse Australian sugarcane production systems. *Agriculture Ecosystems and Environment*, 136: 343–350.

69. Roebeling, P.C., van Grieken, M.E., Webster, A.J., Biggs, J.S. and Thorburn, P.J. (2009). Cost-effective water quality improvement in linked terrestrial and marine ecosystems: a spatial environmental-economic modelling approach. *Marine and Freshwater Research*, 60: 1150-1158.
70. Webster, A.J., Thorburn, P.J., Roebeling, P.C., Horan, H.L. and Biggs, J.S. (2009). The expected impact of climate change on nitrogen losses from sugarcane to the Great Barrier Reef is small. *Marine and Freshwater Research*, 60: 1159-1164.
71. Archer A.A., Higgins A.J. and Thorburn P.J. (2009). A method for comprehending and adapting complex supply chains in agriculture. *Journal on Chain and Network Science*, 9: 9-15.
72. Archer A.A., Thorburn P.J., Hobson P.A. and Higgins A.J. (2008). Evaluating alternate strategic options for agricultural value chains. *Journal on Chain and Network Science*, 8: 131-141.
73. Bramley, R.G.V., Hill, P.A., Thorburn, P.J., Kroon, F.J. and Panten, K. (2008). Precision Agriculture for improved environmental outcomes: Some Australian perspectives. *Landbauforschung - vTi Agriculture and Forestry Research* 3 (58):161-178.
74. Thorburn P.J., Cook F.J., Bristow K.L. and Fitch P. (2008). Improving trickle irrigation: Better matching trickle systems design to soils. *Acta Horticulturae*, 792: 669-677.
75. Higgins, A.J., Thorburn, P.J., Archer, A.A. and Jakku, E. (2007). Opportunities for value chain research in sugar industries. *Agricultural Systems*, 94: 611–621.
76. Robertson, F.A. and Thorburn, P.J. (2007). Management of sugarcane harvest residues: consequences for soil carbon and nitrogen. *Australian Journal of Soil Research*, 45: 13-23.
77. Robertson, F.A. and Thorburn, P.J. (2007). Decomposition of sugarcane harvest residue in different climatic zones. *Australian Journal of Soil Research*, 45: 1-11.
78. Everingham, Y. L., Inman-Bamber, N. G., Thorburn, P. J. and McNeill, T.J. (2007). A bayesian modelling approach for improving long lead sugarcane yield forecasts. *Australian Journal of Agricultural Research*, 58: 87-94.
79. Meier E.A., Thorburn P.J., Wegener M.K. and Basford K.E. (2006). The availability of nitrogen from sugarcane trash on contrasting soils in the wet tropics of North Queensland. *Nutrient Cycling in Agroecosystems*, 75:101-114.
80. Cook F.J., Fitch P., Thorburn, P.J., Charlesworth, P.B. and Bristow, K.L. (2006). Modelling trickle irrigation: comparison of analytical and numerical models for estimation of wetting front position with time. *Environmental Modelling and Software*, 21: 1353-1359.
81. Stewart L.K., Charlesworth P.B., Bristow K.L. and Thorburn P.J. (2006). Estimating deep drainage and nitrate leaching from the root zone under sugarcane using APSIM-SWIM. *Agricultural Water Management*, 81: 315-334.
82. Meier E.A., Thorburn P.J. and Probert M.E. (2006). Occurrence and simulation of nitrification in two contrasting sugarcane soils from the Australian wet tropics. *Australian Journal of Soil Research*, 44: 1-9.
83. Antony A., Prestwidge D., Sandell G., Archer A., Thorburn P. and Higgins A. (2005). Towards farming-systems change from value-chain optimization in the Australian sugar industry. *Australian Farm Business Management Journal*, 2: 1-9.
84. Smith D.M., Inman-Bamber N.G. and Thorburn P.J. (2005). Growth and function of the sugarcane root system. *Field Crops Research*, 92: 165-184.
85. Inman-Bamber N.G., Bonnett G.D., Smith D.M. and Thorburn P.J. (2005). Sugarcane physiology: Integrating from cell to crop to advance sugarcane production. *Field Crops Research*, 92: 115-117.
86. Thorburn P.J., Meier E.A. and Probert M.E. (2005). Modelling nitrogen dynamics in sugarcane systems: Recent advances and applications. *Field Crops Research*, 92: 337-352.
87. Hurst C.A, Thorburn P.J., Lockington D. and Bristow K.L. (2004). Sugarcane water use from shallow water tables: Implications for improving irrigation water use efficiency. *Agricultural Water Management*, 65: 1-19.
88. Cook F.J., Thorburn P.J., Bristow K.L. and Cote C. (2003). Infiltration from surface and buried point sources: The average wetting water content. *Water Resources Research*, 39: 1364-1370.
89. Cote C.M, Bristow, K.L. Charlesworth P. Cook F.J. and Thorburn, P.J. (2003). Analysis of soil wetting and solute transport in sub-surface trickle irrigation. In: Thorburn, P.J., Bristow, K.L. and Annandale, J. (Ed.s) *Micro-irrigation: Advances in system design and management. Irrigation Science*, 22: 143-156.
90. Cook F.J., Thorburn P.J., Fitch P. and Bristow K.L. (2003). WetUp – A software tool to display approximate wetting patterns from drippers. In: Thorburn, P.J., Bristow, K.L. and Annandale, J. (Ed.s) *Micro-irrigation: Advances in system design and management. Irrigation Science*, 22: 129-134.

91. Thorburn, P.J., Dart, I.K., Biggs, I.M., Baillie, C.P., Smith, M.A. and Keating, B.A. (2003). The fate of nitrogen applied to sugarcane by trickle irrigation. In: Thorburn, P.J., Bristow, K.L. and Annandale, J. (Ed.s) Micro-irrigation: Advances in system design and management. *Irrigation Science*, 22: 201-209.
92. Thorburn P.J., Cook F.J., and Bristow K.L. (2003). Soil-dependent wetting from trickle emitters: Implications for system design and management. In: Thorburn, P.J., Bristow, K.L. and Annandale, J. (Ed.s) Micro-irrigation: Advances in system design and management. *Irrigation Science*, 22: 121-127.
93. Thorburn P.J., Bristow K.L. and Annandale J. (2003). Micro-irrigation: Advances in system design and management - Introduction. In: Thorburn, P.J., Bristow, K.L. and Annandale, J. (Ed.s) Micro-irrigation: Advances in system design and management. *Irrigation Science*, 22: 105-106.
94. Thorburn P., Biggs J., Bristow K., Horan H., Huth N., 2003. How should nitrogen be managed in fertigated sugarcane? *Sugar Cane International*, September/October: 11-13.
95. Thorburn P.J., Biggs J.S., Weier K.L. and Keating B.A. (2003). Nitrate in groundwaters of intensive agricultural areas in coastal northeastern Australia. *Agriculture Ecosystems and Environment*, 94: 49-58.
96. Meier, E.A., Thorburn, P.J., Wegener, M.K. and Basford, K.E. (2002). A conceptual analysis of nitrogen from trash blankets in the wet tropics. *International Sugar Journal* May/June 2002, 8-11.
97. Cramer V.A., Schmidt S., Stewart G.R. and Thorburn P.J. (2002). Can the nitrogenous composition of xylem sap be used to assess salinity stress in *Casuarina glauca*? *Tree Physiology* 22: 1019-1026.
98. Thorburn P.J. Gordon I.J. and McIntyre S. (2002). Soil and water salinity in Queensland: the prospect of ecological sustainability through the implementation of land clearing policy. *Rangelands Journal*, 24: 133-151.
99. Thorburn, P. J., Probert M.E. and Robertson, F. A. (2001). Modelling decomposition of sugarcane surface residues with APSIM-Residue. *Field Crops Research*, 70: 223-232.
100. Thorburn, P.J. (2001). Book review – Agriculture, Fertilizers and the Environment: M. Laegreid, O.C. Bockman and O. Kaarstad. CABI Publishing in association with Norsk Hydro ASA, 1999. *Agricultural Systems* 68: 94-96.
101. Zhang L., Dawes W.R., Slavich P.G., Meyer W.S., Thorburn P.J., Smith D.J. and Walker G.R. (1999). Growth and groundwater uptake responses of lucerne to changes in groundwater levels and salinity: Lysimeter, isotope and modelling studies. *Agricultural Water Management* 39: 267-284.
102. Cramer V., Thorburn P.J. and Fraser G.W. (1999). Transpiration and groundwater uptake from farm forest plots of *Casuarina glauca* and *Eucalyptus camaldulensis* in saline areas of southeast Queensland, Australia. *Agricultural Water Management* 39: 187-204.
103. Thorburn P.J. (1999). Interactions between plants and shallow, saline water tables – Synopsis. *Agricultural Water Management* 39: 89-90.
104. Kalma S.J., Thorburn P.J. and Dunn G.M. (1998). A comparison of heat pulse and deuterium tracing techniques for determining tree water use. *Tree Physiology* 18: 697-705.
105. Thorburn, P.J. (1996). Can shallow water tables be controlled by the revegetation of saline lands? *Australian Journal of Soil and Water Conservation* 9: 45-50.
106. Thorburn, P.J. and Ehleringer, J.R. (1995). Root water uptake of field-growing plants indicated by measurements of natural-abundance deuterium. *Plant and Soil* 177: 225-233.
107. Radford, B.J., Thorburn, P.J. and Key, A.J. (1995). Enhancement of wheat establishment using modified sowing and fallow management techniques. *Soil and Tillage Research* 36: 73-89.
108. Thorburn, P.J., Walker, G.R. and Jolly, I.D. (1995). Uptake of saline groundwater by plants: An analytical model for semi-arid and arid areas. *Plant and Soil* 175: 1-11.
109. Thorburn, P.J., Mensforth, L.J. and Walker, G.R. (1994). The reliance of creek-side river red gums on creek water. *Australian Journal of Marine and Freshwater Research* 45: 1439-1443.
110. Thorburn, P.J. and Walker, G.R. (1994). Variations in stream water uptake by *Eucalyptus camaldulensis* with differing access to stream water. *Oecologia* 100: 293-301.
111. Mensforth, L.J., Thorburn, P.J., Tyerman, S.D. and Walker, G.R. (1994). Source of water used by riparian *Eucalyptus camaldulensis* overlying highly saline groundwater. *Oecologia* 100: 21-28.
112. Jolly, I.D., Walker, G.R. and Thorburn, P.J. (1993). Salt accumulation in semi-arid floodplain soils with implications for forest health. *Journal of Hydrology* 150: 589-614.
113. Thorburn, P.J., Hatton, T.J. and Walker, G.R. (1993). Combining measurements of transpiration and stable isotopes of water to determine groundwater discharge from forests. *Journal of Hydrology* 150: 563-587.

114. Thorburn, P.J. and Mensforth, L.J. (1993). Extraction of water from *Medicago sativa* for analysis of stable isotopes of water. *Communications in Soil Science and Plant Analysis* 24: 549-557.
115. Thorburn, P.J., Walker, G.R. and Brunel, J.P. (1993). Extraction of water from Eucalyptus trees for analysis of deuterium and oxygen-18: Laboratory and field techniques. *Plant, Cell and Environment* 16: 269-277.
116. Thorburn, P.J., Walker, G.R. and Woods, P.H. (1992). Comparison of diffuse discharge from shallow water tables in soils and salt pans. *Journal of Hydrology* 136: 253-274.
117. Thorburn, P.J. (1992). Structural and hydrological changes in a Vertisol under different fallow management techniques. *Soil and Tillage Research* 23: 341-359.
118. Dowling, A.J., Thorburn, P.J., Ross, P.J. and Elliot, P.J. (1991). Estimation of infiltration and deep drainage in a furrow irrigated duplex soil. *Australian Journal of Soil Research* 29: 363-375.
119. Thorburn, P.J., Cowie, B.A. and Lawrence, P.A. (1991). Effect of land development on groundwater recharge determined from non-steady chloride profiles. *Journal of Hydrology* 124: 43-58.
120. Thorburn, P.J. (1991). Occurrence and management of dryland salting on the Darling Downs, Queensland. *Australian Journal of Soil and Water Conservation* 4: 26-32.
121. Thorburn, P.J. and Rose, C.W. (1990). Interpreting solute profile dynamics in irrigated soils: III. A simple model of bypass flow in soils. *Irrigation Science* 11: 219-225.
122. Thorburn, P.J., Rose, C.W. and Yule, D.F. (1990). Interpreting solute profile dynamics in irrigated soils: II. Convective-dispersive approach. *Irrigation Science* 11: 209-217.
123. Thorburn, P.J., Rose, C.W., Shaw, R.J. and Yule, D.F. (1990). Interpreting solute profile dynamics in irrigated soils: I. Mass balance approaches. *Irrigation Science* 11: 199-207.
124. Thorburn, P.J., Gardner, E.A., Geritz, A.F. and Coughlan, K.J. (1989). The effect of wetting pre-treatment on the desorption moisture characteristic of Vertisols. *Australian Journal of Soil Research* 27: 27-38.
125. Thorburn, P.J. (1989). Dryland salinity on the Darling Downs. *Queensland Agricultural Journal* 115: 217-224.
126. Thorburn, P.J. and Shaw, R.J. (1987). Effects of different dispersion and fine fraction determination methods on the results of routine particle-size analysis. *Australian Journal of Soil Research* 25: 347-360.
127. Shaw, R.J. and Thorburn, P.J. (1985). Prediction of leaching fraction from soil properties, irrigation water and rainfall. *Irrigation Science*, 6: 73-83.

Book chapters

128. Boote, K.J., Porter, C.H., Jones, J.W., Thorburn, P.J., Hoogenboom, G., White, J.W. and Hatfield J.L. (2016). Sentinel site data for crop model improvement—Definition and characterization. In: Hatfield J.L. and Fleisher, D. (Eds), *Improving Modeling Tools to Assess Climate Change Effects on Crop Response*. Advances in Agricultural Systems Modeling, Volume 7, pp 125-158 (doi:10.2134/advagricsysmodel7.2014.0019).
129. Thorburn, P.J., Boote, K., Hargreaves, J., Poulton, P. and Jones, J. (2015). Crop modelling in AgMIP: A new protocol-driven approach for regional integrated assessments. In: Rosenzweig, C. and Hillel, D (Eds), *Handbook of Climate Change and Agroecosystems, The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments*. IPC Series on Climate Change Impacts, Adaptation and Mitigation Volume 3. Imperial College Press, London, pp 79-99.
130. Antle, J., Valdivia, R., Boote, K., Hatfield, J., Janssen, S., Jones, J., Porter, C., Rosenzweig, C., Ruane, A. and Thorburn, P.J. (2015). AgMIP's trans-disciplinary approach to regional integrated assessment of climate impact, vulnerability, and adaptation of agricultural systems. In: Rosenzweig, C. and Hillel, D (Eds), *Handbook of Climate Change and Agroecosystems, The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments*. IPC Series on Climate Change Impacts, Adaptation and Mitigation Volume 3. Imperial College Press, London, pp 27-44.
131. Boote, K., Porter, C.H., Hargreaves, J., Hoogenboom, G. and Thorburn, P.J. (2015). AgMIP training program: Multiple models and tools. In: Rosenzweig, C. and Hillel, D (Eds), *Handbook of Climate Change and Agroecosystems, The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments*. IPC Series on Climate Change Impacts, Adaptation and Mitigation Volume 3. Imperial College Press, London, pp 393-410.

132. Makowski, D., Asseng, S., Ewert, F., Bassu, S., Durand, J.L., Martre, P., Adam, M., Aggarwal, P.K., Angulo, C., Baron, C., Basso, B., Bertuzzi, P., Biernath, C., Boogaard, H., Boote, K.J., Brisson, N., Cammarano, D., Challinor, A.J., Conijn, J.G., Corbeels, M., Deryng, D., De Sanctis, G., Doltra, J., Gayler, S., Goldberg, R., Grassini, P., Hatfield, J.L., Heng, L., Hoek, S.B., Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, C., Jongschaap, R.E.E., Jones, J.W., Kemanian, R.A., Kersebaum, K.C., Kim, S.H., Lizaso, J., Müller, C., Kumar, S.N., Nendel, C., O'Leary, G.J., Olesen, J.E., Osborne, T.M., Palosuo, T., Pravia, M.V., Priesack, E., Ripoche, D., Rosenzweig, C., Ruane, A.C., Sau, F., Semenov, M.A., Shcherbak, I., Steduto, P., Stöckle, C.O., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Teixeira, E., Thorburn, P., Timlin, D., Travasso, M., Roetter, R.P., Waha, K., Wallach, D., White, J.W., Williams, J.R. and Wolf, J. (2015). Statistical analysis of large simulated yield datasets for studying climate effects. In: Rosenzweig, C. and Hillel, D (Eds), *Handbook of Climate Change and Agroecosystems, The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments*. IPC Series on Climate Change Impacts, Adaptation and Mitigation Volume 3. Imperial College Press, London, pp 279-295.
133. Thorburn, P.J. , Robertson, M.J., Clothier, B.E., Snow, V.O., Charmley, E., Sanderman, J., Teixeira, E., Dynes, R.A., Hall, A., Brown, H., Howden, S.M. and Battaglia, M. (2012). Australia and New Zealand perspectives on climate change and agriculture. In: Rosenzweig, C. and Hillel, D (Eds), *Handbook of Climate Change and Agroecosystems, Global and Regional Aspects and Implications*. IPC Series on Climate Change Impacts, Adaptation and Mitigation Volume 2. Imperial College Press, London, pp 107-141.
134. Jakku, E. and Thorburn, P. (2010). A sociological analysis of the participatory development of agricultural decision support systems. In: Proctor, W. (Eds) *Integrated mission-directed research: Experience from environment and natural resource management*. CSIRO Press, Canberra, pp 95-113.
135. Thorburn P.J., Cook F.J., and Bristow K.L. (2002). New water-saving production technologies: Advances in trickle irrigation. In: Yajima, M., Okada, K. and Matsumoto, N. (Eds), *Water for sustainable agricultural in developing regions – More crop for every scarce drop*. Proceedings of the 8th JIRCAS International Symposium, November 2001. JIRCAS International Synposium Sreies No. 10, August 2002. Japan International Research Centre for Agricultural Science, Tsukuba, Japan, pp 53-62.
136. Walker, G.R., Brunel, J.-P., Dighton, J.C., Holland, K.L., Leaney, F.W., McEwan, K.L., Mensforth, L.J., Thorburn, P.J. and Walker, C.D. (2001). Use of Stable Isotopes of Water for Determining Sources of Water for Plant Transpiration. In: Unkovich, M.J., Gibbs, J., Pate, J.S. and McNeill, A.M. (Eds), *The Practical Application of Stable Isotope Techniques to Study Plant Physiology, Plant Water Uptake and Nutrient Cycling*. Kluwer Academic Publishers, Dordrecht, pp 57-89.
137. Robertson, F.A. and Thorburn, P.J. (2001). Crop residue effects on soil C and N cycling under sugarcane. In: Rees R.M., Ball B.C., Campbell C.D. and Watson C.A. (Eds), *Sustainable Management of Soil Organic Matter*. CAB International, Wallingford, UK, pp 112-119.
138. Thorburn, P. J., Robertson, F. A., Lissou, S. and Biggs, J. S. (2001). Modelling breakdown of sugarcane residues and the impact on soil nitrogen, carbon and water. In: Rees R.M., Ball B.C., Campbell C.D. and Watson C.A. (Eds), *Sustainable Management of Soil Organic Matter*. CAB International, Wallingford, UK, pp 74-82.
139. Thorburn P.J. and Meyer W.S. (1997). Response of simulated upflow from shallow water tables to variations in model parameter values. In: Taniguchi M. (Ed), *Subsurface Hydrological Responses to Land Cover and Land Use Changes*. Kluwer Academic Publishers, Dordrecht, pp 61-71.
140. Thorburn P.J. (1997). Land management impacts on evaporation from shallow, saline water tables. In: Taniguchi M. (Ed), *Subsurface Hydrological Responses to Land Cover and Land Use Changes*. Kluwer Academic Publishers, Dordrecht, pp 21-34.
141. Kalma S.J., Thorburn P.J. and Dunn G.M. (1997). Using heat pulse and deuterium tracing techniques to estimating tree water use. In: Taniguchi M. (Ed), *Subsurface Hydrological Responses to Land Cover and Land Use Changes*. Kluwer Academic Publishers, Dordrecht, pp 47-60.
142. Thorburn P.J. (1997). Trees for controlling dryland salinity and waterlogging. In: Abel N. et al. (Ed), *Design Principles for Farm Forestry: A Guide to Assist Farmers to Decide Where to Place Trees and Farm Plantations on Farms*. RIRDC/LWRRDC/FWPRDC Joint Venture Agroforestry Program, Canberra, pp 18-29.
143. Thorburn P.J., Mensforth L.J. and Walker G.R. (1994). The reliance of creek-side river red gums on creek water. In: Brock M.A., Boon P.I. and Grant A. (Eds), *Plants and Wetland Processes*. CSIRO, Melbourne, Australia, pp 71-75.

144. Thorburn P.J. and Walker G.R. (1993). The source of water transpired by *Eucalyptus camaldulensis*: Soil, groundwater or streams ? In: Ehleringer J.R., Hall A.E. and Farquhar G.D. (Eds), *Stable Isotopes and Plant Carbon-Water Relations*. Academic Press, San Diego, USA, pp 511-527.
145. Thorburn P.J. (1992). Modelling salt transport in the landscape: One dimensional non steady-state movement of solutes in the vadose zone. In: Ghadiri H. and Rose C.W. (Eds), *Modelling Chemical Transport in Soils*. Lewis Publishers Inc., Boca Raton, Florida, USA, pp 145-161.
146. Thorburn P.J., Coughlan K.J., Gardner E.A. and Yule D.F. (1989). Soil water restrictions to land use of Vertisols in Queensland, Australia. In: Ahn P.M. (Ed), *Vertisol Management in Africa, IBSRAM Proceedings No. 9*. International Board of Soil Research and Management: Bangkok, Thailand, pp 77-96.

Books and Special Issues

147. Thorburn, P.J. and Boote, K.J (Editors) (2018). Recent advances in crop modelling to support sustainable agricultural production and food security under global change. *European Journal of Agronomy*, Vol 100, 125 pp.
148. Wallach, D. and Thorburn, P.J. (Editors) (2017). Uncertainty in crop model predictions. *European Journal of Agronomy*, Vol 88, 125 pp.
149. Holzworth, D., Athanasiadis, I.N., Janssen, S., Donatelli, M., Snow, V., Hoogenboom, G., White, J.W., Thorburn, P.J. (Editors) (2014) Thematic issue on agricultural systems modelling and software. *Environmental Modelling and Software*, Part I Vol 62, 326-516. Part II Vol 72, 274-444.
150. Thorburn, P.J. (Editor) (2013). Catchments and coral reefs: Minimising impacts of agriculture. *Agriculture Ecosystems and Environment*, Special Issue, Vol 180, 210 pp.
151. Inman-Bamber, G.N., Bonnett, G.D., Thorburn, P.J., and Smith D.M. (Editors) (2005). Sugarcane physiology: Integrating from cell to crop to advance sugarcane production, *Field Crops Research*, Special Issue, Vol 92 (2-3), 252 pp.
152. Thorburn, P.J., Bristow, K.L. and Anandale, J. (Editors) (2003). Micro-irrigation: Advances in system design and management. *Irrigation Science*, Special Issue, Vol 22 (3-4), 105 pp.
153. Thorburn P.J. (Editor) (1999). Interactions between plants and shallow, saline water tables: Implications for the management of salinity in Australian agriculture. *Agricultural Water Management*, Special Issue, Vol 39 (2-3), 227 pp.
154. Abel N., Baxter J., Campbell A, Cleugh H., Fargher J., Lambeck R., Prinsley R., Prosser M., Reid R., Revell G., Schmidt C., Stirzaker R. and Thorburn P. (1997). *Design Principles for Farm Forestry: A Guide to Assist Farmers to Decide Where to Place Trees and Farm Plantations on Farms* (RIRDC/LWRRDC/FWPRDC Joint Venture Agroforestry Program, Canberra), 102 pp.
155. Anon. (1997). *Salinity Management Handbook* (Queensland Department of Natural Resources, Brisbane), 214 pp.