### CURRICULUM VITAE – DONALD GAYDON

|  |
| --- |
| **Academic Qualifications** |
| 2012 | PhD**,** Wageningen University, The Netherlands (Title: *Living with Less Water: development of viable adaptation options for Riverina Irrigators*) |
| 19941988 | M.Eng, University of Southern Queensland, Toowoomba, Q (Degree by thesis. Title: Optimization of s*tage-loaded in-storage crop-dryers using solar energy*)B.Eng (Agric), Darling Downs Institute of Advanced Education, Toowoomba, Q |
| **Employment history** |
| 2017- now2010-2017 | Principal Research Scientist, CSIRO, BrisbaneSenior Research Scientist, CSIRO, Brisbane  |
| 2006-9 | Farming Systems Researcher, CSIRO, Canberra (and The Netherlands) |
| 1999-20051997-19991992-19961989-1991 | Simulation Model Development Officer, CSIRO, APSIM Software Engineering Group, Brisbane.Own business – performing musician, Brisbane-Gold Coast.Research Engineer, Nursery Mechanisation, Queensland Department of Primary Industries, Cleveland.Research Engineer, Solar Grain Drying, Queensland Department of Primary Industries, Toowoomba. |
| **Invitations - International** |
| 201720162015 | In recognition of his international status as an expert in rice irrigation science, Don was invited to author – book chapter (Title: Advances in Irrigation Techniques for Rice Cultivation) in book “Achieving Sustainable Rice Cultivation” by Burleigh-Dodds Publishers (Cambridge, UK), 2017. Guest lecture, International Rice Research Institute (to all staff), title: “IRRI-CSIRO collaboration in cropping systems modelling” (October)Guest lecture, International Rice Research Institute (to all staff), title: “Evaluation of the APSIM model in cropping systems of Asia” (April) |
| 201420092009 | Invited speaker, International Rice Congress, Bangkok71Invited paper status (top 4% papers) awarded at MODSIM 2009, Cairns88Invited Session Organiser, Irrigation component, Farming Systems Design 2009 Conference, Monterey, California, USA. |
|  |  |
| **Professional awards, fellowships and recognition** |
| 2016  | Certificate of Appreciation, International Rice Research Institute (IRRI), Philippines |
| 201520142012 | Certificate of Appreciation, IRRICSIRO Achievement Award – Adaptation to Climate Change in Asia TeamjEuropean Society of Agronomy, Journal Paper of the Month, September 201219 |
| 20122008 | CSIRO Ecosystem Sciences, Non-Cash Reward – awarded with the following statement: “For outstanding science output relating to irrigation efficiency from his PhD dissertation and for developing rice modelling capability that links an internationally respected crop model (Oryza) to APSIM to provide the systems capability that enables CES to play a leading role in climate adaptation research in Asia.”Wageningen University PE&RC Visiting Scientist Scholarship  |
|  |  |
| 200720062006 | CSIRO Chief Executive’s Study AwardCSIRO Sustainable Ecosystems (CSE) Teamwork Award – APSIM Software Engineering Group CSE non-cash award |
| **Other appointments and responsibilities** |
| 2017-2016- | Member Editorial Board, *Field Crops Research* journal (Elsevier)CSIRO representative and co-chair of Primary Industries Steering Committee (PISC) for the national “Water Use in Agriculture” RD&E Strategy (recommended by Hamish Cresswell as his replacement in this role, Feb 2016) |
| 2016- | Member Editorial Board, *Agricultural Systems* journal (Elsevier) |
| 2016-2012- | Adjunct Associate Professor, University of Queensland, School of Agriculture and Food Sciences*Go-to* person for a number of high-ranking international agricultural journals for reviewing submissions related to rice-based cropping systems and modelling. These include Global Change Biology, Field Crops Research, Agriculture Ecosystems and Environment, Agricultural Systems, European Journal of Agronomy, Agricultural Water Management, Irrigation Science, Climatic Change, and others (total papers reviewed in 2016-17: 20) |
|  |  |
| **Staff & Student supervision since 2010** |
| 2018 - PhD student Uwe Drewer (Germany) – University of Queensland2017- PhD student Sarita Mandahar (Nepal) – University of Queensland2016- PhD student Apurbo Chaki (Bangladesh) – University of Queensland2016- PhD student Sukamal Sarker (India) – BCKV, University of West Bengal, India2012-16 PhD student Jahangir Kabir (Bangladesh) – University of Queensland (graduated) |  |
|  |  |
|  |  |

**APPENDIX: Externally funded projects since appointment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project title** | **Partners** | **Funding agency** | **Principal researchers** | **Term** | **Project Funds ($k)** | **Funds to CSIRO ($k)** |
| ***… As Principal investigator*** |  |  |  |  |  |  |
| 1. ACIAR Adoption Study for SAARC-Australia Project
 | CSIRO | ACIAR | **Gaydon** | 2017-18 | 23 | 23 |
| 1. Risk and resilience of crop production on the East India Plateau
 | CSIRO, UWS, GCI-UQ, PRADAN | Global Change Institute (GCI-UQ) | **Gaydon**, Laing (CSIRO); Bellotti (GCI-UQ), Unkovitch (UWS) | 2017-18 | 135 | 90 |
| 1. LWR/2010/033 - Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia (also known as the “SAARC-Australia Project”)
 | CSIRO, IRRI, SAARC Agriculture Centre | ACIAR | **Gaydon**, Roth, Poulton (CSIRO); Balwinder-Singh, Elizabeth Humphries (IRRI); Azad, Saiyed (SAARC Agriculture Center, Dhaka) | 2010-13 | 945 | 320 |
| 1. Increasing the resilience of Eastern Australian irrigated farm businesses
 | CSIRO, QDPI, NSW DPI | LWA – National Program for Sustainable Irrigation | **Gaydon** (CSIRO), Rodriguez, Power (QDPI), Dunn, Beecher (NSW DPI) | 2007-12 | 1 283 | 450 |
| 1. Seasonal Climate Forecasting in Irrigated Cropping
 | CSIRO | CSIRO | **Gaydon**, Crimp, Kokic, Jin, Howden (CSIRO) | 2008-11 | 240 | strategic |
| 1. Adapting to Climate Change: potential future water management strategies for Riverina broad-acre irrigators and the impacts on biodiversity and production
 | CSIRO, NSW DPI, Ricegrowers Association of Australia (RGA) | National Agriculture and Climate Change Action Plan Implementation Program, DAFF | **Gaydon,** McIntyre,Arthur, McGinness, Howden (CSIRO) | 2008- | 1 700  | 800 |
| **Total** |  |  |  |  | **$4.33M** | **$1.68M** |

|  |  |  |  |
| --- | --- | --- | --- |
| ***… As Co-investigator (and projects in which APSIM-Oryza model is a critical component)*** |  |  |  |
| 1. Cropping system intensification in the salt-affected coastal zones of Bangladesh and West Bengal, India (known as “CSI4CZ Project”) – ACIAR LWR/2014/73
 | CSIRO, Murdoch Uni, BARI, BRRI, IWM, Khulna Uni, ICAR, BCKV Uni  | ACIAR, KGF (Krishi Gobeshona Foundation, Bangladesh) | Mainuddin**,** **Gaydon**, Glover (CSIRO); Bell, Barrett-Lennard (Murdoch Uni, WA); Razzaque (BARI); Ali (BRRI), Hossain (IWM); Kabir (Khulna University); Maji (ICAR); Brahmachari (BCKV Uni, West Bengal) | 2015-20 | 2 720 | 860 |
| 1. Sustainable and resilient farming systems intensification in the eastern Gangetic Plains (‘SRFSI’) – ACIAR CSE/2011/077
 | CIMMYT, CSIRO, UQ, BARC, BARI, BRRI, ICAR, BAU…. + numerous regional partners  | ACIAR | Tiwari**,** Gathala (CIMMYT); Brown, **Gaydon**, Poulton, Laing, Darbas (CSIRO); Menzies (UQ) | 2014-18 | 7 300 | 612 |
| 1. Sustainable Development Investment Portfolio (SDIP) – Asia (2012-20)
 | CSIRO and regional partners | DFAT | Wallbrink**,** Podger, Ahmad, Mainuddin, **Gaydon**, + others (CSIRO) | 2016-20 | 42 000 | 20 000 |
| 1. Developing multi-scale climate change adaptation strategies for farming communities in Cambodia, Laos, Bangladesh and India (known as “ACCA Project”) – ACIAR LWR/2008/019
 | CSIRO, IRRI, numerous regional partners from South and South-East Asia | ACIAR | Roth**,** Dalgliesh, Hochman, **Gaydon**, Poulton, Brown, Laing, Williams | 2010-15 | 5 251 | 3 800 |
| **Total** |  |  |  |  | **$57.27M** | **$25.27** |

### CITATIONS AND PUBLICATIONS

|  |  |  |
| --- | --- | --- |
| Category | Total | Since achieving CSOF6 (2010)  |
| Total number of publications | 130 | 58 |
| Journal research articles (pub) | 36 | 32 |
| Journal research articles (in-review)Books & book chapters | 29 | 29 |
| Reports | 23 | 4 |
| Conference papers | 38 | 11 |
|  |  |  |

**ResearcherID report** (13/09/2018)



**Google Scholar report** (13/09/2018) – noted because due to the rice-oriented nature of much of my recent work, quite a few citations from South Asian Scientists in South Asian journals (indicating regional impact) are not counted in ISI citations, hence missed by ResearcherID.



1. **Publication record**

**Refereed journal publications**

1. Radanielson, A.M., **Gaydon, D.S**., Khan, A.S.M.M.R., Chaki, A.K., Rahman, Md.A., Angeles, O., Li, T., Ismail, A.M., 2016. Varietal improvement options for higher rice productivity in salt affected areas using crop modelling, *Field Crops Research* (in press)
2. Radanielson, A.M, **Gaydon, D.S.**, Li, T., Angeles, O., Roth, C.H., 2018. Modeling salinity effect on rice growth and rice yield with ORYZA v3 and APSIM-Oryza, *European Journal of Agronomy* (accepted; in press) <https://doi.org/10.1016/j.eja.2018.01.015>
3. Nurulhuda, K., Gaydon, D. S., Jing, Q., Zakaria, M. P., Struik, P. C. and Keesman, K. J., 2018. Nitrogen dynamics in flooded soil systems: an overview on concepts and performance of models. *Journal of the Science of Food and Agriculture*, 98, pp 865–871. doi:10.1002/jsfa.8683
4. Kabir, J., **Gaydon, D.S.**, Cramb, R., Roth, C.H., 2018. Bio-economic evaluation of cropping systems for saline coastal Bangladesh: I Biophysical simulation in historical and future environments, *Agricultural Systems*, 162, pp.107-122.
5. Kabir, J., Cramb, R., **Gaydon, D.S.**, Roth, C.H., 2017. Bio-economic evaluation of cropping systems for saline coastal Bangladesh: II. Economic viability in historical and future environments, *Agricultural Systems*, 155, pp.103-115.
6. Kabir, J., Cramb, R., **Gaydon, D.S.**, Roth, C.H., 2018. Bio-economic evaluation of cropping systems for saline coastal Bangladesh: III Benefits of adaptation in current and future environments, *Agricultural Systems*, 161, pp.28-41.
7. Radanielson, A.M., Angeles, O., Li, T., Ismail, A.M., **Gaydon, D.S.**, 2018. Describing the physiological responses of different rice genotypes to salt stress using sigmoid and piecewise linear functions, *Field Crops Research* 220, 46-56. <https://doi.org/10.1016/j.fcr.2017.05.001>
8. Hasegawa, T., Li, T., Yin, X., Zhu, Y., Boote, K., Baker, J., Bregaglio, S., Buis, S., Confalonieri, R., Fugice, J., Fumoto, T., **Gaydon, D.**, Kumar, S.N., Lafarge, T., Marcaida Iii, M., Masutomi, Y., Nakagawa, H., Oriol, P., Ruget, F., Singh, U., Tang, L., Tao, F., Wakatsuki, H., Wallach, D., Wang, Y., Wilson, L.T., Yang, L., Yang, Y., Yoshida, H., Zhang, Z., Zhu, J., 2017. Causes of variation among rice models in yield response to CO2 examined with Free-Air CO2 Enrichment and growth chamber experiments, *Nature - Scientific Reports*, vol. 7, pp. 1-13.
9. Amarasingha, R.P.R.K., Suriyagoda, L.D.B., Marambe, B., Rathnayake, W.M.U.K., **Gaydon, D.S.**, Galagedara, L.W., Punyawardena, R., Silva, G.L.L.P., Nidumolu, U., Howden, S.M., 2017. Improving water productivity in moisture-limited rice-based cropping systems through incorporation of maize and mungbean: A modelling approach, *Agricultural Water Management*, 189, pp.111-122.
10. **Gaydon, D.S.**, Balwinder-Singh, Wang, E., Poulton, P.L., Ahmad, B., Ahmed, F., Akhter, S., Ali, I., Amarasingha, R., Chaki, A.K., Chen, C., Choudhury, B.U. , Darai, R., Das, A., Hochman, Z., Horan, H., Hosang, E.Y., Kumar, P.V., Khan, A.S.M.M.R., Laing, A.M., Liu, L., Malaviachichi, M.A.P.W.K., Mohapatra, K.P., Muttaleb, Md. A., Power, B., Radanielson, A.M., Rai, G.S., Rashid, Md. H., Rathanayake, W.M.U.K., Sarker, M.M.R., Sena, D.R., Shamim, M., Subash, N., Suriyagoda, L.D.B., Wang, G., Wang, J., Yadav, R.K., Roth, C.H., 2017. Evaluation of the APSIM model in cropping systems of Asia, *Field Crops Research* 204, pp52-75.
11. Hochman, Z., Horan, H., Reddy, D.R., Sreenivas, G., Tallapragada, C., Adusumilli, R., **Gaydon, D.S.**, Singh, K.K., Roth, C.H., 2017a. Smallholder farmers managing climate risk in India: 1. adapting to a variable climate, *Agricultural Systems* 150, pp54–66.
12. Hochman, Z., Horan, H., Reddy, D.R., Sreenivas, G., Tallapragada, C., Adusumilli, R., **Gaydon, D.S.**, Laing, A., Kokic, P., Singh, K.K., Roth, C.H., 2017b. Smallholder farmers managing climate risk in India: 2. is it climate-smart? Agricultural Systems 151, 61–72
13. Confalonieri, R., Bregaglio, S., Adam, M., Ruget, F., Li, T., Hasegawa, T., Yin, Z., Zhu, Y., Boote, K., Buis, S., Fumoto, T., **Gaydon, D.**, Lafarge, T., Marcaida, M., Nakagawa, H., Ruane, A.C., Balwinder-Singh, Singh, U., Tang, L., Tao, F., Fugice, J., Yoshida, H., Zhang, Z., Wilson, L.T., Baker, J., Yang, Y., Masutomi, Y., Wallach, D., Acutis, M., Bouman, B.A.M., 2016. A taxonomy-based approach to shed light on the babel of mathematical analogies for rice simulation, *Environmental Modelling and Software* 85, pp332-341.
14. Balwinder-Singh, Humphreys, E., **Gaydon, D.S.** and Eberbach, P.L., 2016. Evaluation of the effects of mulch on optimum sowing date and irrigation management of zero till wheat in central Punjab, India using APSIM. *Field Crops Research* 197, pp83-96.
15. 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.J., Confalonieri, R., Conijn, J.G., Corbeels, M.,Deryng, D., De Sanctis, G., Doltra, J., Fumoto, T., **Gaydon, D.S.**, Gayler, S., Goldberg,R., Grant, R.F., Grassini, P., Hatfield, J.L., Hasegawa, T., Heng, L., Hoek, S., Hooker,J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Jongschaap, R.E.E., Jones, J.W.,Kemanian, R.A., Kersebaum, K.C., Kim, S.H., Lizaso, J., Marcaida Iii, M., Müller,C., Nakagawa, H., Naresh Kumar, S., Nendel, C., O’Leary, G.J., Olesen, J.E., Oriol,P., Osborne, T.M., Palosuo, T., Pravia, M.V., Priesack, E., Ripoche, D., Rosenzweig,C., Ruane, A.C., Ruget, F., Sau, F., Semenov, M.A., Shcherbak, I., Singh, B., Singh,U., Soo, H.K., Steduto, P., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tang,L., Tao, F., Teixeira, E.I., Thorburn, P., Timlin, D., Travasso, M., Rötter, R.P., Waha,K., Wallach, D., White, J.W., Wilkens, P., Williams, J.R., Wolf, J., Yin, X., Yoshida,H., Zhang, Z., Zhu, Y., 2015. A statistical analysis of three ensembles of crop model responses to temperature and CO2 concentration. *Agricultural and Forest Meteorology* 214, pp483–493, <http://dx.doi.org/10.1016/j.agrformet.2015.09.013> .
16. Amarasingha, R.P.R.K., Suriyagoda, L.D.B., Marambe, B., **Gaydon, D.S.,** Galagedara, L.W., Punyawardena, R., Silva, G.L.L.P., Nidumolu, U., Howden, M., 2015. Simulation of crop and water productivity for rice (Oryza sativa L.) using APSIM under diverse agro-climatic conditions and water management techniques in Sri Lanka, *Agricultural Water Management* 160, 132–143.
17. Balwinder-Singh, Humphreys, E., Sudhir-Yadav, **Gaydon, D.S.,** 2015. Options for increasing the productivity of the rice-wheat system of north-west India while reducing groundwater depletion. Part 1. Rice variety duration, sowing date and inclusion of mungbean, *Field Crops Research* 173, 68-80.
18. Balwinder-Singh, Humphreys, E., **Gaydon, D.S.**, Sudhir-Yadav, 2015. Options for increasing the productivity of the rice-wheat system of north-west India while reducing groundwater depletion. Part 2. Is conservation agriculture the answer? *Field Crops Research* 173, 81-94.
19. Li, T., Hasegawa, T., Yin, X., Zhu, Y., Boote, K.J., Adam, M., Bregaglio, S., Buis, S., Confalonieri, R., Fumoto, T., **Gaydon, D.S.,** Marcaida, M., Nakagawa, H., Oriol, P., Ruane, A.C., Ruget, F., Balwinder-Singh, Singh, U., Tang, L., Tao, F., Wilkens, P.W., Yoshida, H., Zhang, Z., and Bouman, B.A.M., 2015. Crop-model ensembles reduce uncertainty in predicting rice yield under climate change, *Global Change Biology* 21(3), pp 1328–1341.
20. Holzworth, D.P., Huth, N.I., deVoil, P.G., Zurcher, E.J., Herrmann, N.I., McLean, G., Chenu, K., van Oosterom, E., Snow, V., Murphy, C., Moore, A.D., Brown, H., 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., Carberry, P.S., Hargreaves, J.N.G., MacLeod, N., McDonald, C., Harsdorf, J., Wedgwood, S., Keating, B.A., 2014. APSIM - Evolution towards a new generation of agricultural systems simulation, *Environmental Modelling and Software* 62, 327-350.
21. Subash, N., Shamim, M., Singh, V. K., Gangwar, B., Balwinder-Singh, **Gaydon, D.S.,** Roth, C.H., Poulton, P.L., Sikka, A.K., 2014. Applicability of APSIM to capture the effectiveness of irrigation management decisions in rice-based cropping sequence in the Upper-Gangetic Plains of India, *Paddy and Water Environment* 13(4), 325-335. (DOI 10.1007/s10333-014-0443-1).
22. Rashid, M.H., Afroz, S., **Gaydon, D.S.,** Muttaleb, A., Poulton, P.L., Roth, C.H., Abedin, M.Z. 2014. Climate Change Perception and Adaptation Options for Agriculture in Southern Khulna of Bangladesh, *Applied Ecology and Environmental Sciences* 2(1), 25-31.
23. Hochman, Z., Carberry, P.S., Robertson, M.J., **Gaydon, D.S.,** Bell, L.W., McIntosh, P.C., 2013, Prospects for ecological intensification of Australian agriculture, *European Journal of Agronomy* 44, 109-123.
24. **Gaydon, D.S.,** Meinke, H., Rodriguez, D., McGrath D.J., 2012. Comparing water options for irrigation farmers using Modern Portfolio Theory, *Agricultural Water Management* 115, 1-9.
25. **Gaydon, D.S.,** Probert, M.E., Buresh, R.J., Meinke, H., Suriadi, A.., Dobermann, A., Bouman, B.A.M., Timsina, J., 2012. Rice in cropping systems - Modelling transitions between flooded and non-flooded soil environments, *European Journal of Agronomy* 39, 9-24.
26. **Gaydon, D.S.,** Probert, M.E., Buresh, R.J., Meinke, H., Timsina, J., 2012. Capturing the role of algae in rice crop production and soil organic carbon maintenance, *European Journal of Agronomy* 39, 35-43.
27. **Gaydon, D.S.,** Meinke, H., Rodriguez, D., 2012. The best farm-level irrigation strategy changes seasonally with fluctuating water availability, *Agricultural Water Management* 103, 33– 42.
28. Balwinder-Singh, **Gaydon, D.S.,** Humphreys, E., Eberbach, P.L., 2011. The effects of mulch and irrigation management on wheat in Punjab, India—Evaluation of the APSIM model, *Field Crops Research* 124(1), 1-13.
29. Brown P.R., Phung, M.T., **Gaydon D.S.,** 2011. Rats in rice: linking crop and pest models to explore management strategies, *Wildlife Research* 38, 560–567.
30. Dunn B.W., **Gaydon D.S.,** 2011. Rice growth, yield and water productivity responses to irrigation scheduling prior to the delayed application of continuous flooding in south-east Australia, *Agricultural Water Management* 98, 1799–1807
31. Mcintyre, S., McGinness, H.M., **Gaydon, D.S.,** Arthur, A.D., 2011. Introducing irrigation efficiencies: prospects for water-dependent biodiversity in a rice agro-ecosystem, *Environmental Conservation* 38 (3), 353–365.
32. Park, S.E., Howden, S.M., Crimp, S.J., **Gaydon, D.S**., Attwood, S.J., Kokic, P.N., 2010. More than eco-efficiency is required to improve food system security, *Crop Science* 50(2), 132-141.
33. Paydar, Z., **Gaydon, D.S.,** Chen, Y., 2009. A methodology for up-scaling irrigation losses, *Irrigation Science* 27(5), 347-356.
34. Robertson, M.J., **Gaydon, D.S.,** Hall, D.J.M., Hills, A, Penny, S., 2005. Production risks and water-use benefits of summer crop production on the south coast of Western Australia, *Crop and Pasture Science* 56(6), 597-612.
35. Keating B.A., **Gaydon D.S.,** Huth N.I., Probert M.E., Verburg K, Smith C.J., Bond W.J., 2002. Use of modelling to explore the water balance of dryland farming systems in the Murray-Darling Basin, Australia, *European Journal of Agronomy* 18, 159-169.
36. Radajewski W, **Gaydon D.S.,** McGahan E.J., 1990. Optimization of Solar Hay Drying in a Step-Flow Dryer, *Transactions of the American Society of Agricultural Engineers* 33(5), 1423-1431.

**Books and Monographs**

1. **Gaydon, D.S.,** Saiyed, I., Roth, C.R. (Editors), 2014. The SAARC-Australia Project – developing capacity in cropping systems modelling for South Asia, SAARC Agriculture Centre Monograph, SAARC Agriculture Centre (SAC), BARC Campus, Farm Gate, Dhaka-1215, Bangladesh, 259 pages, ISBN: 978-984-33-7469-1 <http://www.saarcagri.org/index.php?option=com_abook&view=book&catid=2%3Atechnical-publications&id=175%3Asac-monograph&Itemid=246>
2. **Gaydon, D.S.,** 2012. Living with Less Water: Development of viable adaption options for Riverina irrigators. Ph.D thesis. Wageningen University, Wageningen, the Netherlands. pp.225. ISBN: 978-94-6173-232-3. <http://library.wur.nl/WebQuery/wda/1987914>

**Book chapters**

1. **Gaydon, D.S.,** Chapter 1. Advances in irrigation techniques for rice cultivation, in Sasaki, Takuji (ed.), Achieving sustainable cultivation of rice Volume 2: Cultivation, pest and disease management, Burleigh Dodds Science Publishing, Cambridge, UK (ISBN: 978 1 78676 028 9; www.bdspublishing.com )
2. **Gaydon, D.S.,** Beecher, H.G., Reinke, R., Crimp, S., Howden, S.M., 2010. Chapter 5 – Rice, in Adapting Australian Agriculture to Climate Change, Edited by C.J. Stokes & S.M. Howden, CSIRO Publishing, Melbourne.
3. Roth, C.H. and **Gaydon, D.S**., 2014. Chapter 1: Introduction to the SAARC-Australia Project, The SAARC-Australia Project – developing capacity in cropping systems modelling for South Asia, SAARC Agriculture Centre Monograph, SAARC Agriculture Centre (SAC), BARC Campus, Farm Gate, Dhaka-1215, Bangladesh, 259 pages, ISBN: 978-984-33-7469-1
4. **Gaydon, D.S**., 2014. Chapter 2: The APSIM Model – An Overview, The SAARC-Australia Project – developing capacity in cropping systems modelling for South Asia, SAARC Agriculture Centre Monograph, SAARC Agriculture Centre (SAC), BARC Campus, Farm Gate, Dhaka-1215, Bangladesh, 259 pages, ISBN: 978-984-33-7469-1.
5. Bashir-Ahmad, **Gaydon, D.S.**, Bhatti, A.A., Ahmad, M.M., Ullah, S., Dahri, Z.H., Ali, I., 2014. Chapter 10: Irrigation Scheduling Impact on Yield of Wheat, Pothowar Region, Pakistan, The SAARC-Australia Project – developing capacity in cropping systems modelling for South Asia, SAARC Agriculture Centre Monograph, SAARC Agriculture Centre (SAC), BARC Campus, Farm Gate, Dhaka-1215, Bangladesh, 259 pages, ISBN: 978-984-33-7469-1.
6. **Gaydon, D.S.,** Roth, C.H., Poulton, P.L., Balwinder-Singh, Saiyed, I., 2014. Chapter 16: A Critical Evaluation of the SAARC-Australia Project, The SAARC-Australia Project – developing capacity in cropping systems modelling for South Asia, SAARC Agriculture Centre Monograph, SAARC Agriculture Centre (SAC), BARC Campus, Farm Gate, Dhaka-1215, Bangladesh, 259 pages, ISBN: 978-984-33-7469-1.
7. Roth, C.H., Humphreys, E., **Gaydon, D.S.**, Poulton, P.L., Saiyed, I., Balwinder-Singh, 2014. Chapter 17: Using Modelling to Explore Options to Increase Crop and Water Productivity in South Asian Rice Based Cropping Systems – A Synthesis, The SAARC-Australia Project – developing capacity in cropping systems modelling for South Asia, SAARC Agriculture Centre Monograph, SAARC Agriculture Centre (SAC), BARC Campus, Farm Gate, Dhaka-1215, Bangladesh, 259 pages, ISBN: 978-984-33-7469-1

**Submitted manuscripts under review** (these are not counted in summary figures)

1. Khaliq, T., **Gaydon, D.S.**, Ahmad, M.D., Cheema, M.J.M., Gull, U., 2018. Analyzing crop yield gaps and their causes using cropping systems modelling – a case study of the Punjab rice-wheat system, Pakistan, *Field Crops Research* (in review)
2. **Gaydon, D.S.**, Radanielson, A.M., Chaki, A.K., Sarker, M.M.R., Khan, A.S.M.M.R., Rashid, M.H., Kabir, Md.J., Khan, A.S.M.M.R., Roth, C.H., 2018. Comparing options for increasing Boro rice production in saline coastal Bangladesh, *Field Crops Research* (in review)

**Reports**

1. **Gaydon, D.S.,** Radanielson, A.M., 2016. Future options for collaboration in cropping systems modelling between IRRI and CSIRO. Consultancy report to IRRI, 22pp.
2. **Gaydon, D.S.,** Poulton, P.L., 2015. Kick Start: preliminary APSIM modelling for the SRFSI project. CSIRO: 2015. CSIRO: EP156336. <https://doi.org/10.4225/08/5852da7e4199f>
3. **Gaydon, D.S.,** Roth, C.H., Poulton, P.L., Humphreys, E., Balwinder-Singh, Saiyed, I. 2013 Final Report: Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia (The SAARC-Australia Project) - Project number LWR/2010/033. Australian Centre for International Agricultural Research (ACIAR), Canberra ACT, 2013. <http://aciar.gov.au/publication/FR2013-23>
4. Roth, C.H., Brown, P., **Gaydon, D.S**., MacLeod, N., McDonald, C., Khan, I. and Reddy, V.R. 2009. Developing research options to mainstream climate adaptation into farming systems in Cambodia, Laos, Bangladesh and India. Final report submitted to ACIAR, Canberra, 145pp. <http://aciar.gov.au/publication/FR2010-19>.
5. Crimp S., Laing A., **Gaydon D.,** Brown P., Poulton P., and Khimashia N. (2010) “A Participatory Approach to Developing Climate Change Adaptation Options for NSW Farming Systems.”, Final Report to NSW Department of Environment and Climate Change (T07/CAG/04) – January 2010.
6. **Gaydon D.,** McGinness H., Arthur T., Crimp S., McGufficke J., McIntyre S., & Howden M. (2008) “Adapting to Climate Change: potential future water management strategies for Riverina broad-acre irrigators and the impacts on biodiversity and production”, Final report to National Agriculture and Climate Change Action Plan Implementation Programme, Department of Agriculture, Fisheries & Forestry, Canberra, 2008.
7. Stokes, C.J., Howden, S.M, Gifford, R.G, Meinke, H., Bange, M., McRae, D., Roth, G., **Gaydon, D.,** Beecher, H.G., Reinke, R., Crimp, S., Park, S., Inman-Bamber, G., Webb, L., Barlow, E.W.R., Hennessy, K., Whetton, P.H., Booth, T.H., Kirschbaum, M.U.F., Battaglia, M., Stone, G., Cobon, D., Ash, A., McKeon, G., Miller, C.J., Jones, R.N., Hobday, A. J., and Poloczanska, E. S. (2008) An overview of climate change adaptation in Australian primary industries – impacts, options and priorities. Report prepared for the National Climate Change Research Strategy for Primary Industries (CCRSPI), Land and Water Australia, Canberra. pp 341
8. **Gaydon, D**., Beecher, H.G., Reinke, R., Crimp, S., Howden, S.M (2008) Chapter 4 – “Rice”, in An overview of climate change adaptation in Australian primary industries – impacts, options and priorities, Report prepared for the National Climate Change Research Strategy for Primary Industries, Land & Water Australia, February 2008, Edited by C.J. Stokes & S.M. Howden. http://www.csiro.au/resources/AgricultureAdaptationReport2008.html
9. Crimp, S., Gartmann, A., DeVoil, P., **Gaydon, D**., Howden, SM., Odgers, J. (2008) “Adapting Australian farming systems to climate change: a participatory approach”, Final report for the Australian Greenhouse Office, June 2008
10. Crimp, S., **Gaydon, D.,** DeVoil P, and Howden, SM (2008) “On-farm management in a changing climate: A participatory approach to adaptation”, Birchip Cropping Group, 2008 Cropping Manual, 11 pages http://www.bcg.org.au/cb\_pages/images/Adapting%20to%20Climate%20Change%20article.pdf
11. Crimp, S., **Gaydon, D.,** Howden, SM., Hall, C., Poulton, P. and Hochman, Z (2007) “Managing Natural Resource Issues in a Variable and Changing Climate”, Final Report for Managing Climate Variability Program, Land& Water Australia, June 2007.
12. **Gaydon DS**, Lisson SN, Xevi E, and Dassanayake D. (2006) “Value Assessment of Irrigation Allocation Forecasts for a Rice-based Operation in the Coleambally Irrigation District – in terms of water-use efficiency, production, and drainage” – Final Report, CSIRO Water for a Healthy Country Flagship, Project No. T4.S2.P1 Murray Region Irrigation.
13. Lisson, S., Hardie, M., Khan, S., Rana, T., **Gaydon, D**. Battaglia, M., (2006) “An assessment of the impact of current practice and proposed recycled water irrigation practice on farm and catchment scale water and salt balances in the Coal Valley”. Final report to the Clarence City Council, Tasmania, National Heritage Trust.
14. **Gaydon DS** (2006) “APSIM WaterSupply Science Documentation”, <http://www.apsim.info/apsim/>
15. Thorburn P, **Gaydon D**, and Biggs J (2006) “Pacific Islands – Climate Prediction Project Introductory APSIM Training Workshop”, Final report, Pacific Islands – Climate Prediction Project, Fiji, (ACIAR) <http://www.bom.gov.au/climate/pi-cpp/workshops/APSIM-ws-july2006.pdf>
16. **Gaydon DS** & Lisson SN (2005) “APSIM WaterSupply”, chapter in Inventory of Australian Software tools for Best Use of Water On-Farm, – Final Report for Project 3.08, CRC for Irrigation Futures, G Inman-Bamber, S Attard - eds.
17. Hills A, Penny S, Hall D, Robertson M, & **Gaydon D** (2005) “Summer Crops and Water Use”, Agribusiness Crop Updates 2005, WA Dept Agriculture, <http://www.agric.wa.gov.au/pls/portal30/docs/FOLDER/IKMP/FCP/FarmingSystems_part2.pdf>
18. Hills A, Penny S, Robertson M, & **Gaydon D** (2005) “Risk analysis of sorghum cropping”, Agribusiness Crop Updates 2005, WA Dept Agriculture, <http://www.agric.wa.gov.au/pls/portal30/docs/FOLDER/IKMP/FCP/FarmingSystems_part2.pdf>
19. Baker P, Please P, Coram J, Dawes W, Bond W, Stauffacher M, Gilfedder M, Probert M, Huth N, **Gaydon D**, Keating B, Moore A, Simpson R, Salmon L, and Stefanski A (2001). “Assessment of salinity management options for Upper Billabong Creek catchment, NSW: Groundwater and farming systems water balance modelling”. Bureau of Rural Sciences, Canberra, 2001. <http://audit.deh.gov.au/ANRA/land/docs/national/Upper_Billabong/Final%20Billabong%20Report%20230501.pdf>
20. Hekmeijer , P., Dawes, W., Bond, W., Gilfedder, M., Stauffacher, M., Probert, M., Huth, N., **Gaydon, D.**, Keating, B., Moore, A., Simpson, R., Salmon, L. and Stefanski, A. (2001), “Assessment of salinity management options for Kamarooka, Victoria: Groundwater and crop water balance modelling”, CSIRO Land and Water, project undertaken for NL&WRA, Canberra, 2001. <http://audit.ea.gov.au/anra/land/docs/national/Kamarooka/Kamarooka.pdf>
21. R. Short, R. Salama, D. Pollock, T. Hatton, W. Bond, Z. Paydar, H. Cresswell, M. Gilfedder, A. Moore, R. Simpson, L. Salmon, A. Stefanski, M. Probert, N. Huth, **D. Gaydon**, B. Keating, J. Coram and P. Please (2000), “Assessment of Salinity Management Options for Lake Warden catchments, Esperance, WA: Groundwater and Crop Water Balance Modelling.”, CSIRO Land & Water Technical Report 20/2000, <http://www.clw.csiro.au/publications/technical2000/tr20-00.pdf>
22. Radajewski, W. and **Gaydon, D.** (1996) “Nursery dispatch systems (video)”, Queensland DPI, Brisbane, (Available from Horticultural Research and Development Corporation, 7 Merriwa street, Gordon, NSW 2270.)
23. Radajewski, W., and **Gaydon, D.** (1995), “Practical ideas for increasing nursery efficiency”, Queensland DPI Publication, Brisbane. (Available from Redlands Research Station, PO Box 327, Cleveland Qld 4163.)
24. Radajewski, W., and **Gaydon, D**. (1991) “Efficient Stage-loaded In-storage Crop Dryers using Solar Energy”, Queensland Department of Primary Industries, Toowoomba, Final Report to the National Energy Research and Development Corporation (NERDC), December 1991.

**Reviewed scientific conference proceedings**

1. Laing, A., Roth, C.H., **Gaydon, D.S.,** Phengvichith, V., Sipaseuth, S., Thiravong, K., Vorlasan, S., Schiller, J., 2015. Combining field trials and crop modelling of dry direct seeded rice to improve production in Lao PDR under current and future climates, Building Productive, Diverse and Sustainable Landscapes, Australian Agronomy Conference, Hobart, Tasmania, 20-24 September 2015. <http://www.agronomy2015.com.au/papers/agronomy2015final00070.pdf>
2. Radanielson A.M., O. Angeles, T. Li, A.K. Rahman and **D.S. Gaydon**, 2015. Optimizing use of fresh and saline water for irrigation of boro rice in salt affected areas of Bangladesh using the crop model ORYZA v3. In Humphreys, E., T.P. Tuong, M.C. Buisson, I. Pukinskis and M. Phillips (eds) 2015. Revitalizing the Ganges Coastal Zone: Turning Science into Policy and Practices Conference Proceedings. Colombo, Sri Lanka: CGIAR Challenge Program on Water and Food (CPWF). Pp 477-491.
3. **Gaydon, D.S.,** Khan, M.M.R., Chaki, A.K., Rahman, M.A., Radanielson, A.M., Angeles, O., Li, T. 2014. Investigating options to increase fresh water productivity in boro rice for salt-affected areas of Bangladesh, using crop modelling, The 4th International Rice Congress, BITEC, Bangkok, 27 October – 1 November 2014
4. Roth, C.H., Z. Abedin, R. Adusumilli, P.R. Brown, P. Charlesworth, N. Dalgliesh, **D.S. Gaydon**, C. Grünbühel, Z. Hochman, T. Inthavong, I. Khan, A. Laing, U. Nidumolu, V. Phengvichith, P. Poulton, Md. Harunur Rashid, D.R. Reddy, V.R. Reddy, T. Say, V. Seng, S. Sacklokham, G. Sreenivas, C. Tallapragada, M. van Wensveen, L.J. Williams., 2014. Insights from the ‘Adaptation to Climate Change in Asia’ project, A Policy Dialogue on Rice Futures: Rice-based farming systems research in the Mekong region, ACIAR, Cambodiana Hotel, Phnom Penh, Cambodia, 7-9 May 2014.
5. Balwinder-Singh, Humphreys, E., Sudhir-Yadav, and **Gaydon, D.S.,** 2014. Inclusion of a legume in a CA rice-wheat system - effects on system productivity and groundwater depletion, Soil Health and Wallet Wealth, 6th World Congress on Conservation Agriculture, Winnipeg, Manitoba, Canada, 22-26 June 2014
6. Li, T., Hasegawa, T., Yin, X., Zhu, Y., Boote, K.J., Adam, M., Bregaglio, S., Buis, S., Confalonieri, R., Fumoto, T., **Gaydon, D.S.,** Marcaida, M., Nakagawa, H., Oriol, P., Ruane, A.C., Ruget, F., Balwinder-Singh, Singh, U., Tang, L., Tao, F., Wilkens, P.W., Yoshida, H., Zhang, Z., and Bouman, B.A.M., 2013. The Variation of Rice Models in Simulating Responses to Elevation of CO2 and Temperature, in Water, Food, Energy & Innovation for a Sustainable World, Proceedings of the American Society of Agronomy (ASA), Crop Science Society of America (CSSA) and Soil Science Society of America (SSSA), 2013 International Annual Meetings, November 3-6, Tampa, Florida, United States.
7. **Gaydon, D.S.,** Meinke, H., and Rodriguez, D., 2013. The Best Farm–Level Irrigation Strategy Changes Seasonally With Fluctuating Water Availability. in Water, Food, Energy & Innovation for a Sustainable World, Proceedings of the American Society of Agronomy (ASA), Crop Science Society of America (CSSA) and Soil Science Society of America (SSSA), 2013 International Annual Meetings, November 3-6, Tampa, Florida, United States.
8. **Gaydon, D.S.,** Rashid, M.H., Muttaleb, M.A., Sarker, M.M., Chaki, A., Kabir, M.J., and Saiyed, I., 2013. Increasing cropping intensity in Bangladesh - water productivity ($profit/mm) implications for current and future climates, Proceedings of First International Conference on Global Food Security, 29th September – 3rd October 2013, Noordwijkerhout, The Netherlands.
9. Roth, C.H., Dalgliesh, N., Brown, P., Williams, L., Laing, A., **Gaydon, D.S.,** Hochman, Z., Poulton, P., van Wensveen, M., Khan, I., Inthavong, T., Tallapragada, C., Reddy, R.D., Reddy, D., Seng, R.V, Charlesworth, P., Phengvichith, V., Sacklokham, S., Say, T., Grunbuhel, C., Adusumilli, R., and Sreenivas, G., 2013. Developing multi-scale climate adaptation strategies and practices for farming communities in India, Cambodia and Laos, Proceedings of ‘Climate Change and Regional Response 2013 (CCRR-2013), Dresden, Germany, May 27-29, 2013.
10. Harris, R., **Gaydon, D.,** Bellotti, B., Unkovich, M., Robertson, M., 2010. Estimated long-term trends in agronomic strategies for mitigating competition in companion cropping systems - Proceedings of the 15th Australian Agronomy Conference, “Food Security from Sustainable Agriculture", Lincoln, New Zealand, November 2010.
11. **Gaydon, D.S.,** Cattanach, D., Houghton, R., Meinke, H., Rodriguez, D., 2010. Adapting to climate change in broad-acre irrigated farming systems – Case studies from the Riverina region of South East Australia, NCCARF 2010 International Climate Change Adaptation Conference, Climate Adaptation Futures – Preparing for the unavoidable impacts of climate change, Gold Coast Convention Centre, Gold Coast, Queensland, Australia, 29 June – 1 July 2010.
12. Crimp, S., Laing, A., **Gaydon, D.,** Howden, M., Brown, P., 2010. The challenges of agricultural production in a future variable and changing climate, NCCARF 2010 International Climate Change Adaptation Conference, Climate Adaptation Futures – Preparing for the unavoidable impacts of climate change, Gold Coast Convention Centre, Gold Coast, Queensland, Australia, 29 June – 1 July 2010.
13. Meinke, H., Bastiaans, L., Bouman, B.A.M., Dingkuhn, M., **Gaydon, D.S.,** Hasegawa, T., Heinemann, A.B., Kiepe, P., Lafarge, T., Luquet, D., Masood, A., Möller, C., van Oort, P., Rodenburg, J., Yan, J., Yin, X., 2009. Adaptation of rice production under climatic constraints, EU-ASEAN Science and Technology Dialogue, Bogor, Indonesia, 11-12 November 2009.
14. Meinke, H., Bastiaans, L., Bouman, B.A.M., Dingkuhn, M., **Gaydon, D.S.,** Hasegawa, T., Heinemann, A.B., Kiepe, P., Lafarge, T., Luquet, D., Masood, A., Möller, C., van Oort, P., Rodenburg, J., Yan, J., Yin, X., 2009. An international collaborative research network helps to design climate robust rice systems, Keynote Paper from International Workshop on Crop Production under Heat Stress – Monitoring, Impact Assesment, and Adaptation, Tsukuba International Congress Centre, Tsukuba, Ibaraki, Japan, 5-9 October 2009. Published in Hasegawa T. and Sakai H., eds. 2009. Crop Production under Heat Stress: Monitoring, Impact Assessment and Adaptation. Proceedings of the MARCO Symposium 2009 held in Tsukuba, Japan, 5-9 October 2009. Tsukuba (Japan): National Institute for Agro-Environmental Sciences (NIAES). http://www.niaes.affrc.go.jp/marco/marco2009/ws2proc.pdf
15. **Gaydon, D.S.,** Buresh, R.J., Probert, M.E., Meinke, H., 2009. Simulating rice within broader farming systems using the APSIM framework, Proceedings of Farming Systems Design 2009- International Symposium on Methodologies for Integrated Analysis of Farm Production Systems, Monterey, California, USA, August 23-26 2009.
16. Suriadi, A., **Gaydon, D.S**., Abawi, G.Y., Misra, R., 2009. Capability of APSIM-Oryza to simulate lowland rice-based farming systems under nitrogen treatments in a tropical climate, Proceedings of Farming Systems Design 2009- International Symposium on Methodologies for Integrated Analysis of Farm Production Systems, Monterey, California, USA, August 23-26 2009.
17. Suriadi, A., **Gaydon, D.S.,** Abawi, G.Y., Misra, R., 2009. Yield and Yield Components of Rice on a Coarse Sandy Loam Soil in Response to Water-Saving Irrigation, Proceedings of Farming Systems Design 2009- International Symposium on Methodologies for Integrated Analysis of Farm Production Systems, Monterey, California, USA, August 23-26 2009
18. Laing, A, Crimp, S., Poulton, P., **Gaydon, D.S.,** Brown, P.R., 2009. Enhancing options to adapt to climate risk at the field scale: an Australian example of integrating expert knowledge, crop and climate science in mixed cropping systems, Proceedings of Farming Systems Design 2009- International Symposium on Methodologies for Integrated Analysis of Farm Production Systems, Monterey, California, USA, August 23-26 2009.
19. Crimp, S., Howden, S.M., Laing, A., **Gaydon, D.S.,** Gartmann, A., Brown, P., 2009. Managing future agricultural production in a variable and changing climate. Proceedings of Climate Change: Global risks, challenges and decisions. Copenhagen, 10-12 March, 2009.
20. **Gaydon, D.S.,** Buresh, R.J., Probert, M.E., Meinke, H., 2009. Simulating rice in farming systems – modelling transitions between aerobic and ponded soil environments in APSIM, Proceedings of 18th World IMACS Congress, MODSIM09 - International Congress on Modelling and Simulation, Cairns, Australia 13–17th July 2009.
21. Laing, A., Crimp, S., Brown, P.R., **Gaydon, D.S.,** Poulton, P., 2009. Modelling the impacts of and adaptation responses to climate variability and change in mixed cropping systems in NSW, Proceedings of 18th World IMACS Congress, MODSIM09 -International Congress on Modelling and Simulation, Cairns, Australia 13–17th July 2009.
22. Harris, R., **Gaydon, D.S.,** Bellotti, WD., Unkovich, M., Robertson, M.J., 2008. Simulating competition between cereal and lucerne grown in mixture, Global issues – Paddock Action, Proceedings of the 14th Australian Society of Agronomy Conference, Adelaide, 21-25 September 2008.
23. Crimp, S., Nidumolu, U., **Gaydon, D.S.,** Howden, S.M., Hayman, P., 2008. Examining the value of dynamic seasonal forecasts in managing farm-level production and environmental outcomes in a variable climate, Global issues – Paddock Action, Proceedings of the 14th Australian Society of Agronomy Conference, Adelaide, 21-25 September 2008.
24. Crimp, S., Howden, S.M., **Gaydon, D.S**., 2008. Managing water in a changing climate: an agricultural context, CONFARM 08 Farming for today and tomorrow, Conference of the Australian Conservation Farmers Inc., Moree, NSW, 12-13 March 2008.
25. Crimp, S., **Gaydon, D.S.,** Howden, M., Hall C., Poulton P., Nelson R., Hochman, Z., 2007. Managing farm-level production and environmental outcomes in a variable and changing climate, Farming Systems Design 2007 - an international symposium on Methodologies for Integrated Analysis of Farm Production Systems, Catania, Sicily, Italy, 10-12 September 2007.
26. Hall,C., Crimp, S., Hochman, Z., **Gaydon, D.S.,** Poulton P., Howden S.M., 2007. Novel combinations: qualitative research and technology, Australasia-Pacific Extension Network (APEN) National Forum 07, Capture, consolidate and communicate - the changing nature of contemporary extension, Canberra, 13-14 November 2007.
27. Howden, S.M., Nelson, R., Crimp, S., **Gaydon, D.S.,** 2006. Climate change – where are we heading? International Landcare Conference – Landscapes, Lifestyles, Livelihoods, Melbourne, 8-11 Oct 2006.
28. **Gaydon, D.S.,** Lisson, S.N., Xevi, E., 2006. Application of APSIM ‘multi-paddock’ to estimate whole-of-farm water-use efficiency, system water balance and crop production for a rice-based operation in the Coleambally Irrigation District, NSW, Ground-breaking Stuff, Proceedings of the 13th Australian Society of Agronomy Conference, Perth, Western Australia, 10-14 September 2006. (http://www.regional.org.au/au/asa/2006/concurrent/water/4632\_gaydond.htm )
29. **Gaydon, D.S.,** Robertson, M.J., 2006. Are there pre-sowing indicators for choosing in which seasons to crop wheat into existing lucerne?, Ground-breaking Stuff, Proceedings of the 13th Australian Society of Agronomy Conference, Perth, Western Australia, 10-14 September 2006. (http://www.regional.org.au/au/asa/2006/poster/systems/4623\_gaydond.htm )
30. Latta, R., Bellotti, W., Crawford, M., Dolling, P., Fedorenko, D., Fettell, N., **Gaydon, D.,** Harris, R., Hirth, J., Honeysett, B., Lyons, A., Peoples, M., Robertson, M., Ward, P., 2005. Addressing salinity in southern Australia with alfalfa based high water-use farming systems. In: Managing Saline Soils and Water: Science Technology and Social Issues Proceedings International Salinity Forum. California, USA. 25-27 April 2005, pp. 277-342.
31. Howden, S.M., Seis, C., Bruce, S., **Gaydon, D.S.,** 2005. Can pasture cropping help the management of climate risks? Grassland conservation and production: Both sides of the fence. Proceedings of 4th Stipa Conference on Management of Native Grasses and Pastures, Burra SA, FLFR University of Melbourne, Dookie Campus, 11-13 October 2005.
32. Robertson, M.J., **Gaydon, D.S.,** Latta, R., Peoples, M., Swan, A., 2004. Simulating lucerne/crop companion farming systems in Australia, In: New directions for a diverse planet, Proceedings of the 4th International Crop Science Congress, Brisbane, 2004. (<http://www.cropscience.org.au/icsc2004/symposia/6/1/926_robertson.htm> )
33. Ward, P.R., Bellotti, W., Butterly, C., Crawford, M.C., Dolling, P., Federenko, D., Fettell, N., **Gaydon, D.S.**, Harris, R., Hirth, J., Honeysett, B., Latta, R., Lyons, A., Peoples, M.B., Robertson, M.J., 2004. High water use farming systems that integrate crops with perennial pastures, Working with Science and Society, Proceedings of the Salinity Solutions Conference, Bendigo, Victoria, 2–5 August 2004.
34. Hills, A., Robertson, M. J., **Gaydon, D.S.,** Hall, D., Lacey, T., Ryder, A., 2003. Evaluation of sorghum in Western Australia, Solutions for a better environment: Proceedings of the 11th Australian Agronomy Conference Geelong, Victoria, 2003.
35. Keating, B.A., Verburg, K., Smith, C.J., Probert, ME., **Gaydon, D.S.,** 2001. Analysis of water balance in alternative dryland farming systems in Australia, In: Bindi, M., Donatelli, M, Porter, J. R. and van Ittersum, M. K. (Eds). Book of Proceedings, 2nd International Symposium Modelling Cropping Systems, Florence, 16-18 July, 2001, Italy. Florence: European Society for Agronomy; 2001, pp 137-138.
36. Keating, B.A., Verburg, K., Smith, C.J., Probert, M.E., **Gaydon, D.S.,** 2001. Assessing leakiness in Australia's dryland farming systems. In: Proceedings MODSIM 2001, The Australian National University, (Eds F Ghassemi, D White, S Cuddy, T Nakanishi) pp. 1811-1816. (Modelling and Simulation Society of Australia and New Zealand: Canberra, ACT)
37. Radajewski, W., **Gaydon, D.S.,** 1991. Solar Drying of Agricultural Products – Technical, Eonomic, and Policy-related Issues, Energy for a Sustainable World, Proceedings of the Australian and New Zealand Solar Energy Society Annual Conference, Flinders University, Adelaide, 1991, pp 246-250.
38. Radajewski, W., **Gaydon, D.S.,** 1991. Solar Heating System for Plant-Research Greenhouses, Energy for a Sustainable World, Proceedings of the Australian and New Zealand Solar Energy Society Annual Conference, Flinders University, Adelaide, 1991, pp 323-327.

**Independent manuscripts published using Don’s APSIM developments as key tools**

(these are not counted in summary figures)

1. Zhao, Z., Qin, X., Zang, H., Chen, C., Zhang, Y. and Wang, Z., 2017. Value of groundwater used for producing extra grain in North China Plain. *Field Crops Research*, 210, pp.47-51.
2. Yuan, S., Peng, S., Li, T., 2017. Evaluation and application of the ORYZA rice model under different crop managements with high-yielding rice cultivars in central China, *Field Crops Research*, 212, pp. 115-125.
3. Bai, H. and Tao, F., 2017. Sustainable intensification options to improve yield potential and eco-efficiency for rice-wheat rotation system in China. *Field Crops Research*, 211, pp.89-105.
4. Jain, M., Srivastava, A.K., Joon, R.K., McDonald, A., Royal, K., Lisaius, M.C. and Lobell, D.B., 2016. Mapping smallholder wheat yields and sowing dates using micro-satellite data. *Remote Sensing*, 8(10), p.860.
5. Wallach, D., Nissanka, S.P., Karunaratne, A.S., Weerakoon, W.M.W., Thorburn, P.J., Boote, K.J. and 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, pp.53-62.
6. Vanuytrecht, E. and Thorburn, P.J., 2017. Responses to atmospheric CO2 concentrations in crop simulation models: a review of current simple and semi-complex representations and options for model development. *Global Change Biology*, 23(5), pp.1806-1820.
7. Dalgliesh, N.P., Charlesworth, P., Lonh, L. and Poulton, P.L., 2016. Promoting resilience in Cambodian lowland rice ecosystems—Farming system research to support flexible climate response strategies for smallholder farmers, *Field Crops Research*, 198, pp.148-159.
8. Bai, H., Tao, F., Xiao, D., Liu, F. and Zhang, H., 2016. Attribution of yield change for rice-wheat rotation system in China to climate change, cultivars and agronomic management in the past three decades. *Climatic change*, 135(3-4), pp.539-553.
9. Feng, H., Li, Z., He, P., Jin, X., Yang, G., Yu, H. and Yang, F., 2016. Simulation of Winter Wheat Phenology in Beijing Area with DSSAT-CERES Model. In Computer and Computing Technologies in Agriculture IX: 9th IFIP WG 5.14 International Conference, CCTA 2015, Beijing, China, September 27-30, 2015, Revised Selected Papers, Part II 9 (pp. 259-268). Springer International Publishing.
10. Nissanka, S.P., Karunaratne, A.S., Perera, R., Weerakoon, W.M.W., Thorburn, P.J., Wallach, D., 2015. Calibration of the phenology sub-model of APSIM-Oryza: Going beyond goodness of fit, *Environmental Modelling & Software* 70, 128-137.
11. Poulton, P.L., Dalgliesh, N.P., Vang, S. and Roth, C.H., 2016. Resilience of Cambodian lowland rice farming systems to future climate uncertainty. *Field Crops Research*, 198, pp.160-170.
12. Amarasingha, R.P.R.K., Suriyagoda, L.D.B., Marambe, B., Galagedara, L.W., Silva, G.L.L.P., Punyawardena, R., Wijekoon, R., Nidumolu, U. and Howden, M., 2015. Modelling the impact of changes in rainfall distribution on the irrigation water requirement and yield of short and medium duration rice varieties using APSIM during Maha season in the dry zone of Sri Lanka. *Tropical Agricultural Research*, 26(2).
13. Poulton, P.L., Vesna, T., Dalgliesh, N.P. and Seng, V., 2015. Applying simulation to improve rice varieties in reducing the on-farm yield gap in Cambodian lowland rice ecosystems. *Experimental Agriculture*, 51(2), pp.264-284.
14. Yang, X., Chen, F., Lin, X., Liu, Z., Zhang, H., Zhao, J., Li, K., Ye, Q., Li, Y., Lv, S. and Yang, P., 2015. Potential benefits of climate change for crop productivity in China. *Agricultural and Forest Meteorology*, 208, pp.76-84.
15. Fernando, M.E.K.K., Amerasekara, D.A.B.N., Amarasingha, R.K., Suriyagoda, L.D.B., Marambe, B., Galagedara, L.W., Silva, G.L.L.P., Punyawardena, R., Parsons, D. and Meinke, H., 2015. Validation of APSIM for long duration rice varieties in different agro-climatic zones of Sri Lanka. In 17th Australian Society of Agronomy Conference (pp. 1-4).
16. Kumar, S., Shamim, M., Bansal, M., Gangwar, B. and Aggarwal, R.P., 2015, March. Computational modeling and emerging trend in agriculture. In Computing for Sustainable Global Development (INDIACom), 2015 2nd International Conference on (pp. 1156-1160). IEEE.
17. Yang, X., Chen, F., Lin, X., Liu, Z., Zhang, H., Zhao, J., Li, K., Ye, Q., Li, Y., Lv, S. and Yang, P., 2015. Potential benefits of climate change for crop productivity in China. *Agricultural and Forest Meteorology*, 208, pp.76-84.
18. Wang, G.C., Wang, E., Huang, Y., Xu, J.J., 2014. Soil Carbon Sequestration Potential as Affected by Management Practices in Northern China: A Simulation Study, *Pedosphere* 24(4), 529–543.
19. Liu, L., Wang, E., Zhu, Y., Tang, L., Cao, W., 2013. Quantifying three-decade changes of single rice cultivars in China using crop modeling. *Field Crops Research* 149, 84-94.
20. Liu, L., Zhu, Y., Tang, L., Cao, W. and Wang, E., 2013. Impacts of climate changes, soil nutrients, variety types and management practices on rice yield in East China: A case study in the Taihu region. *Field Crops Research*, 149, pp.40-48.
21. Phung, N.T.M., Brown, P.R. and Leung, L.K., 2013. Use of computer simulation models to encourage farmers to adopt best rodent management practices in lowland irrigated rice systems in An Giang Province, the Mekong Delta, Vietnam. *Agricultural Systems*, 116, pp.69-76.
22. An, S. and Culas, R., 2013. Improving Rice Productivity and Farmers Income in Cambodia: An Econometric Estimation Using Data from APSIM Simulator. *Retrieved,* January, 31, p.2015.
23. Heinemann, A.B., van Oort, P.A., Fernandes, D.S. and Maia, A.D.H.N., 2012. Sensitivity of APSIM/ORYZA model due to estimation errors in solar radiation. *Bragantia*, 71(4), pp.572-582.
24. Awan, M.I., Bastiaans, L., van Oort, P.A., Ahmad, R., Ashraf, M.Y. and Meinke, H., 2013. Water use and crop performance of rice (Oryza sativa L.) under aerobic conditions in a semi-arid subtropical environment. Improving resource-use efficiency in rice-based systems of Pakistan, Wageningen University PhD Thesis, p.15.