List of publications/Reimund P. Rötter (as of May 2024)

Classification is based on the recommendation of the Academy of Finland .

A) Peer-reviewed scientific articles

A1 Journal article (refereed), original research

2024

A 162

Kahiluoto, H., Sakieh, Y., Kaseva, J., Kersebaum, K.-C., Minoli, S., Franke, J., **Rötter, R. P.**, Müller, C. (2024). Redistribution of nitrogen to feed the people on a safer planet. - PNAS Nexus (In press).

A 161

Pohanková, E., Hlavinka, P., Kersebaum, K. C., Nendel, C., Rodríguez, A., Balek, J., Dubrovský, M., Gobin, A., Hoogenboom, G., Moriondo, M., Olesen, E. J**., Rötter, R. P.,** Ruiz-Ramos, M., Shelia, V., Stella, T., Hoffmann, M. P., Takáč, J., Eitzinger, J., Dibari, C., Ferrise, R., Bohuslav, J., Bláhová, M., Trnka, M. (2024). Expected effects of climate change on the soil organic matter content related to contrasting agricultural management practices based on a crop model ensemble for locations in Czechia. European Journal of Agronomy, 156, 127165.
DOI:https://doi.org/10.1016/j.eja.2024.127165

A 160

Bracho-Mujica, G**., Rötter, R. P.,** Haakana, M., Palosuo, T., Fronzek, S., Asseng, S., Yi, C., Ewert, F., Gaiser, T., Kassie, B., Paff, K., Rezaei, E.E., Rodriguez, A., Ruiz-Ramos, Margarita, Srivastava, A.K., Statonovitch, P., Tao. F., Semenov, M. A. (2024): Effects of Changes in Climatic Means and Variability on Future Wheat and Maize Yields and the Role of Adaptive Agro-Technologies in Reducing Negative Impacts. Agricultural and Forest Meteorology Volume 346,2024,109887.
DOI:https://doi.org/10.1016/j.agrformet.2024.109887

2023

A 159

Dewi, E.S., Abdulai, I., Bracho-Mujica, G., Appiah, M., **Rötter, R.P**. (2023): Agronomic and Physiological Traits Response of Three Tropical Sorghum (Sorghum bicolor L.) Cultivars to Drought and Salinity.
Agronomy 13(11), 2788.
DOI: https://doi.org/10.3390/agronomy13112788

A 158

Appiah, M., Abdulai, I., Schulman, A.H., Moshelion, M., Dewi, E.S., Daszkowska-Golec, A., Bracho-Mujica, G., **Rötter, R.P**. (2023): Drought response of water-conserving and non-conserving spring barley cultivars. Frontiers in Plant Science 14, 1247853. https://doi.org/10.3389/fpls.2023.1247853

A 157

Guarin, J.R., Martre, P., Ewert, F., Webber, H., Dueri, S., Calderini, D., Reynolds, M., Molero, G., Miralles, D., Garcia, G., Slafer, G., Giunta, F., Pequeno, D., Stella, T., Ahmed, M., Alderman, P., Basso, B., Berger, A., Bindi, M., Bracho-Mujica. G., Cammarano, D., Chen, Y., Dumont, B., Rezaei, E. E., Fereres, E., Ferrise, R., Gaiser, T., Gao, Y., Garcia-Vila, M., Gayler, S., Hochman, Z., Hoogenboom, G., Hunt, F., Kersebaum, K.C., Nendel, C., Olesen, J., Palosuo, T., Priesack, E., Pullens, J., Rodriguez, A., **Rötter, R.P**., Ramos, M.R., Semenov, M., Senapati, N., Siebert, S., Srivastava, A., Stockle, C., Supit, I., Tao, F., Thorburn, P., Wang, E., Weber, T., Xiao, L., Zhang, Z., Zhao, C., Zhao, J., Zhao, Z., Zhu, Y., Asseng, S. (2023): A high-yielding traits experiment for modeling potential production of wheat: field experiments and AgMIP-Wheat multi-model simulations. Data Journal for Agricultural Research 9, 26-33. DOI: https://doi.org/10.18174/odjar.v9i0.18573

A 156

Bringhenti, T., Joubert, E., Abdulai, I., Hoffmann, M. P., Moriondo, M., Taylor, P. J., **Rötter, R. P**. (2023). Effects of environmental drivers and irrigation on yields of macadamia orchards along an altitudinal gradient in South Africa.Scientia Horticulturae 321, 112326. DOI: https://doi.org/10.1016/j.scienta.2023.112326

A 155

Liu, B., Martre, P., Ewert, F., Webber, H., Waha, K., Thorburn, P.J., Ruane, A.C., Aggarwal, P.K., Ahmed, M., Balkovič, J., Basso, B., Biernath, C., Bindi, M., Cammarano, D., Cao, W., Challinor, A.J., Sanctis, G.D., Dumont, B., Espadafor, M., Rezaei, E., Fereres, E., Ferrise, R., Garcia-Vila, M., Gayler, S., Gao, Y., Horan, H., Hoogenboom, G., Izaurralde, R.C., Jabloun, M., Jones, C.D., Kassie, B.T., Kersebaum, K.C., Klein, C., Koehler, A.K., Maiorano, A., Minoli, S., San Martin, M.M., Müller, C.M., Kumar, S.N., Nendel, C., O'Leary, G.J., Olesen, J.E., Palosuo, T., Porter, J.R., Priesack, E., Ripoche, D., **Rötter, R.P**., Semenov, M.A., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Velde, M.V., Wang, E., Wolf, J., Xiao, L., Zhang, Z., Zhao, A., Zhu, Y., Asseng, S., (2023). AgMIP-Wheat multi-model simulations on climate change impact and adaptation for global wheat. Open Data Journal for Agricultural Research 9, 10-25.
DOI: https://doi.org/10.18174/odjar.v9i0.18092

A 154

Lam, Q.D., **Rötter, R.P**., Rapholo, E., Ayisi, K., Nelson, W.C.D., Odhiambo, J., Foord, S. (2023). Modelling maize yield impacts of improved water and fertilizer management in southern Africa using cropping system model coupled to an agro-hydrological model at field and catchment scale. The Journal of Agricultural Science 1–17. DOI: https://doi.org/10.1017/S0021859623000230

A 153

Joseph, J.E., Akinseye, F.M., Worou, O.N., Faye, A., Konte, O., Whitebread, A.M., **Rötter R.P.** (2023). Assessment of the relations between crop yield variability and the onset and intensity of the West African Monsoon.
Agricultural and Forest Meteorology 333, 109431
DOI: 10.1016/j.agrformet.2023.109431

A 152

Kaseva, J., Hakala, K., Högnäsbacka, M., Jauhiainen, L., Himanen, S.J., **Rötter R.P.**, Balek, J., Trnka, M., Kahiluoto, H. (2023). Assessing climate resilience of barley cultivars in northern conditions during 1980–2020. Field Crops Research 293, 108856
DOI: 10.1016/j.fcr.2023.108856

A 151
Liu, K., Harrison, M.T., Yan, H., Liu, D.L., Meinke, H., Hoogenboom, G., Wang, B., Guan, K., Jaegermeyr, J., Wang, E., Zhang, F., Yin, X., Archontoulis, S., Nie, L., Badea, A., Man, J., Wallach, D., Zhao, J., Benjumeng, A.B., Fahad, S., Tian, X., Wand, W., Tao, F., Zhang, Z., **Rötter, R,P.**, Yuan, Y., Zhu, M., Dai, P., Nie, J., Yang, Y., Zhang, Y., Zhou, M. (2023). Silver lining to a climate crisis in multiple prospects for alleviating crop waterlogging under future climates. Nat Commun 14, 765
DOI: 10.1038/s41467-023-36129-4

2022

A 150
Ferreira, N. C.R., **Rötter, R. P.**, Bracho-Mujica, G., Nelson, W. C. D., Lam, Q. D., Recktenwald, C**.,** Abdulai, I., Odhiambo, J., Foord, S. (2022). Drought patterns: their spatiotemporal variability and impacts on maize production in Limpopo province, South Africa. Int J Biometeorol 67, 133–148. DOI: 10.1007/s00484-02202392-1

A 149
Appiah, M., Bracho-Mujica, G., Ferreira, N. C.R., Schulman, A. H., **Rötter, R. P.** (2022). Projected impacts of sowing date and cultivar choice on the timing of heat and drought stress in spring barley grown along a European transect. Field Crops Research 291, 108768. DOI: 10.1016/j.fcr.2022.108768

A 148
Guarin, J. R., Martre, P., Ewert, F., Webber, H., Dueri, S., Calderini, D., Reynolds, M., Molero, G., Miralles, D., Garcia, G., Slafer, G., Giunta, F., Noleto Luz Pequeno, D., Stella, T., Ahmed, M., Alderman, P. D., Basso, B., Berger, A. G., Bindi, M., Bracho-Mujica, G., Cammarano, D., Chen, Y., Dumont, B., Rezaei, E. E., Fereres, E., Ferrise, R., Gaiser, T., Gao, Y., Garcia-Vila, S., Gayler, S., Hochman, Z., Hoogenboom, G., Hunt, L. A., Kersebaum, C., Nendel, C., Olesen, J., Palosuo, T., Priesack, E., Pullens, J., Rodriguez, A., **Rötter, R.**, Ruiz-Ramos, M., Semenov, M. A., Senapati, N., Siebert, S., Kumar Srivastava, A., Stöckle, C. O., Supit, I., Tao, F., Thorburn, P. J., Wang, E., Weber, T. K. D., Xiao, L., Zhang, Z., Zhao, C., Zhao, J., Zhao, Z, Zhu, Y and Asseng, S. (2022). Evidence for increasing global wheat yield potential. *Environ. Res. Lett.* 17, 124045. DOI: 10.1088/1748-9326/aca77c

A 147
Rötter, R. P. and Köster, M. (2022). Klimawandel und Ernährungssicherheit: Inwieweit könnte eine angepasste Landwirtschaft in der Europäischen Union zur globalen Ernährungssicherheit beitragen? In: Ifo- Institut für Wirtschaftsforschung (Hrsg.), Ifo-Schnelldienst-Ifo-Institut für Wirtschaftsforschung. München. Jahrgang 75, 08.2022, S. 10-14. https://doi.org/10.5194/bg-2022-61

A 146
Pfeiffer, M., Hoffmann, M. P., Scheiter, S., Nelson, W., Isselstein, J., Ayisi, K. K., Odhiambo, J., and **Rötter, R. P.** (2022). Effects of alternative crop-livestock management scenarios on selected ecosystem services in

smallholder farming – a landscape perspective, Biogeosciences 19, 3935–3958 https://doi.org/10.5194/bg-193935-2022

A 145

Senapati, N., Semenov, M.A., Halford, N.G., Hawkesford, M.J., Asseng, S., Cooper, M., Ewert, F., van Ittersum, M.K., Martre, P., Olesen, J.E., Reynolds, M., **Rötter, R.P**., Webber, H. (2022). Global wheat production could benefit from closing the genetic yield gap. Nature Food 3, 532–541. https://doi.org/10.1038/s43016-022-00540-9

A 144

Nelson, W. C. D., Hoffmann, M. P., May, C., Mashao, F., Ayisi, K., Odhiambo, J., Bringhenti, T., Feil, J. H., Yazdan Bakhsh, S., Abdulai, I. & **Rötter, R. P.** (2022). Tackling climate risk to sustainably intensify smallholder maize farming systems in southern Africa. Environmental Research Letters 17, 75005. https://doi.org/10.1088/1748-9326/ac77a3

A 143

Meyer zu Drewer, J., Köster, M., Abdulai, I., **Rötter, R. P.,** Hagemann, N. & Schmidt, H. P. (2022): Impact of Different Methods of Root-Zone Application of Biochar-Based Fertilizers on Young Cocoa Plants: Insights from a Pot-Trial. Horticulturae 8, 328. https://doi.org/10.3390/horticulturae8040328

A 142

Dueri, S., Brown, H., Asseng, S., Ewert, F., Webber, H., George, M., Craigie, R., Guarin, J. R., Pequeno, D. N. L., Stella, T., Ahmed, M., Alderman, P. D., Basso, B., Berger, A. G., Mujica, G. B., Cammarano, D., Chen, Y., Dumont, B., Rezaei, E. E., Fereres, E., Ferrise, R., Gaiser, T., Gao, Y., Garcia- Vila, M., Gayler, S., Hochman, Z., Hoogenboom, G., Kersebaum, K. C., Nendel, C., Olesen, J. E., Padovan, G., Palosuo, T., Priesack, E., Pullens, J. W. M., Rodríguez, A., **Rötter, R. P.,** Ramos, M. R., Semenov, M. A., Senapati, N., Siebert, S., Srivastava, A. K., Stöckle, C., Supit, I., Tao, F., Thorburn, P., Wang, E., Weber, T. K. D., Xiao, L., Zhao, C., Zhao, J., Zhao, Z., Zhu, Y. & Martre, P. (2022). Simulation of winter wheat response to variable sowing dates and densities in a high-yielding environment. Journal of experimental botany. https://doi.org/10.1093/jxb/erac221

A 141

Savary S, Waddington, S., Akter, S., Almekinders, C., Harris, J., Korsten, L., **Rötter R.P.,** Van den Broeck, G. (2022). Revisiting food security in 2021: an overview of the past year. https://doi.org/10.1007/s12571-022-01266-z

A 140

Dewi, E:S., Abdulai, I., Bracho-Mujica, G., **Rötter, R.P**. (2022). Salinity constraints for small-scale agriculture and impact on adaptation in North Aceh, Indonesia. Agronomy

A 139

Pohanková, E., Hlavinka, P., Kersebaum, K.-C., Rodríguez, A., Balek, J., Bednařík, M., Dubrovský, M., Gobin, A., Hoogenboom, G., Moriondo, M., Nendel, C., Olesen, J. E., **Rötter, R. P.,** Ruiz-Ramos, M., Shelia, V., Stella, T., Hoffmann, M. P., Takáč, J., Eitzinger, J., Dibari, C., Ferrise, R., Bláhová, M. & Trnka, M. (2022). Expected effects of climate change on the production and water use of crop rotation management reproduced

by crop model ensemble for Czech Republic sites. European Journal of Agronomy 134, 126446. https://doi.org/10.1016/j.eja.2021.126446

A 138

Sarmiento-Soler, A., **Rötter, R. P**., Hoffmann, M. P., Jassogne, L., van Asten, P., Graefe, S., Vaast, P. (2022). Disentangling effects of altitude and shade cover on coffee fruit dynamics and vegetative growth in smallholder coffee systems Agriculture, Ecosystems & Environment, 326, 107786. https://doi.org/10.1016/j.agee.2021.107786

2021

A 137

Nelson, W.C.D., Hoffmann, M.P., Vadez, V., **Rötter, R.P.**, Koch, M., Whitbread, A.M. (2021). Can intercropping be an adaption to drought? A model-based analysis for pearl millet-cowpea. Journal of Agronomy and Crop Science. DOI: 10.1111/jac.12552

A 136

Mouratiadou, I., Latka, C., van der Hilst, F., Müller, C., Berges, R., Bodirsky, B. L., Ewert, F., Faye, B., Heckelei, T., Hoffmann, M, Lehtonen, H., Lorite, I.J., Nendel, C., Paluoso, T., Rodríguez, A., **Rötter, R.P.**, Ruiz-Ramos, M., Stella, T., Webber, H., B. Wicke (2021). Quantifying sustainable intensification of agriculture: The contribution of metrics and modelling. Ecological Indicators, 129, 107870. DOI: 10.1016/j.ecolind.2021.107870

A 135

Kostková, M., Hlavinka, P., Pohanková, E., Kersebaum, K. C., Nendel, C., Gobin, A., Olesen J. E., Ferrise, R., Dibari, C., Takáč, J., Topaj, A., Medvedev, S., Hoffmann, M.P., Stella, T., Balek, J., Ruiz-Ramos, M., Rodríguez, A., Hoogenboom, G., Shelia, V., Ventrella, D., Giglio, L., Sharif, B., Oztürk, I., **Rötter, R.P.**, Balkovič, J., R. Skalský, R., Moriondo, M., Thaler, S., Žalud Z., M. Trnka (2021). Performance of 13 crop simulation models and their ensemble for simulating four field crops in Central Europe. The Journal of Agricultural Science, 109, 141–157. DOI: 10.1017/S0021859621000216

A 134

Nelson, W.C.D., Siebrecht-Schöll, D.J., Hoffmann, M.P., **Rötter, R.P.**, Whitbread, A.M., Link, W. (2021). What determines a productive winter bean-wheat genotype combination for intercropping in central Germany? European Journal of Agronomy, 127. 126294. DOI: 10.1016/j.eja.2021.126294

A 133

Rötter, R.P., Scheiter, S., Hoffman, M.P., Pfeiffer, M., Nelson, W.C.D., Ayisi, K., Taylor, P., Feil, J-H, Bakhsh, S.Y., Isselstein, J., Linstaedter, A., Behn, K., Westphal, C., Odhiambo, J., Twine, W., Grass, I., Merante, P., Bracho-Mujica, G., Bringhenti, T., Lamega, S., Abdulai, I, Lam, Q.D., Anders, M., Linden, V., Weier, S., Foord, S., Erasmus, B. (2021). Modeling the multi-functionality of African savanna landscapes under global change. Land Degradation & Development, 32, 2077-2081 DOI: 10.1002/ldr.3925

A 132

Palosuo, T., Hoffmann, M.P., **Rötter, R.P.**, Lehtonen, H.S. (2021). Sustainable intensification of crop production under alternative future changes in climate and technology: The case of the North Savo region. Agricultural Systems, 190, 103135. DOI: 10.1016/j.agsy.2021.103135

A 131
Laux, P., **Rötter, R.P.**, Webber, H., Dieng, D., Rahimi, J., Wie, J., Faye, B., Srivastava, A.K., Bliefernicht, J., Adeyeri, O., Arnault, J., Kunstmann, H. (2021). To bias correct or not to bias correct? An agricultural impact modelers' perspective on regional climate model data. Agricultural and Forest Meteorology 304-305, 108406. DOI: 10.1016/j.agrformet.2021.108406

2020

A 130
Savary, S., Akter, S., Almekinders, C., Harris, J., Korsten, L., **Rötter, R.P.**, Waddington, S., Watson, D. (2020). Mapping disruption and resilience mechanisms in food systems. Food Security 12, 695–717. DOI: 10.1007/s12571-020-01093-0

A 129
Hoffmann, M.P., Swanepoel, C.M., Nelson, W.C.D., Beukes, D.J., van der Laan, M., Hargreaves, J.N.G., **Rötter, R.P.** (2020). Simulating medium-term effects of cropping system diversification on soil fertility and crop productivity in southern Africa. European Journal of Agronomy 119, 126089. DOI: 10.1016/j.eja.2020.126089

A 128
Sarmiento-Soler, A., Vaast, P., Hoffmann, M.P., Jassongne, L., van Asten, P., Graefe, S., **Rötter, R.P.** (2020). Effect of cropping system, shade cover and altitudinal gradient on coffee yield components at Mt. Elgon, Uganda. Agriculture, Ecosystems & Environment 295, 106887. DOI: 10.1016/j.agee.2020.106887

A 127
Abdulai, I., Hoffmann, M.P., Jassogne, L., Asare, R., Graefe, S., Tao, H.H., Muilerman, S., Vaast, P., Van Asten, P., Läderach, P. **Rötter, R.P.** (2020). Variations in yield gaps of smallholder cocoa systems and the main determining factors along a climate gradient in Ghana. Agricultural Systems. Agricultural Systems 181, 102812. DOI: 10.1016/j.agsy.2020.102812

A 126
Hoffmann, M., Cock, J., Samson, M., Janetski, N., Janetski, K., **Rötter, R.P.**, Fisher, M., Oberthür, T. (2020). Fertilizer management in smallholder cocoa farms of Indonesia under variable climate and market prices. Agricultural Systems 178, 102759. DOI: 10.1016/j.agsy.2019.102759.

2019

A 125
Tao, F., Palosuo, T., **Rötter, R.P.**, Hernández Díaz-Ambrona, C.G., Mínguez, M.I., Semenov, M.A., Kersebaum, K.C., Cammarano, D., Specka, X., Nendel, C., Srivastava, A.K., Ewert, F., Padovan, G., Ferrise, R., Martre, P., Rodríguez, L., Ruiz-Ramos, M., Gaiser, T., Höhn, J.G., Salo, T., Dibari, C., Schulman, A.H.

(2019). Why do crop models diverge substantially in climate impact projections? A comprehensive analysis based on eight barley crop models. Agricultural Systems 173, 393–402. DOI: 10.1016/j.agrformet.2019.107851

A 124
Trnka, M., Feng, S., Semenov, M.A., Olesen, J.E., Kersebaum, K.C., **Rötter, R.P.**, Semerádová, D., Klem, K., Huang, W., Ruiz-Ramos, M., Hlavinka, P., Meitner, J., Balek, J., Havlik, P., Büntgen, U. (2019). Mitigation efforts will not fully alleviate the increase in water scarcity occurrence probability in wheatproducing areas. Science Advances 5, eaau2406. DOI: 10.1126/sciadv.aau2406

A 123
Rapholo, E., Odhiambo, J.J.O., Nelson, W.C.D., **Rötter, R.P.**, Ayisi, K., Koch, M., Hoffmann, M.P. (2019). Maize–lablab intercropping is promising in supporting the sustainable intensification of smallholder cropping systems under high climate risk in southern Africa. Experimental Agriculture 56(1), 104-117. DOI: 10.1017/S0014479719000206

A 122
Sarmiento-Soler, A., Vaast, P., Hoffmann, M. P., **Rötter, R. P.**, Jassogne, L., van Asten, P. J. A., Graefe, S. (2019). Water use of Coffea arabica in open versus shaded systems under smallholder's farm conditions in Eastern Uganda. Agricultural and Forest Meteorology 266–267, 231–242 DOI: 10.1016/j.agrformet.2018.12.006

2018

A 121
Rodríguez, A., Ruiz-Ramos, M., Palosuo, T., Carter, T. R., Fronzek, S., Lorite, I.J., Ferrise, R., Pirttioja, N., Bindi, M., Baranowski, P., Buis, S., Cammarano, D., Chen, Y., Dumont, B., Ewert, F., Gaiser, T., Hlavinka, P., Hoffmann, H., Höhn, J.G., Jurecka, F., Kersebaum, K.C., Krzyszczak, J., Lana, M., Mechiche-Alami, A., Minet, J., Montesino, M., Nendel, C., Porter, J.R., Ruget, F., Semenov, M.A., Steinmetz, Z., Stratonovitch, P., Supit, I., Tao, F., Trnka, M., de Wit, A., **Rötter,** R.P. (2018). Implications of crop model ensemble size and composition for estimates of adaptation effects and agreement of recommendations. Agricultural and Forest Meteorology 264, 351-362. DOI: 10.1016/j.agrformet.2018.09.018

A 120
Pirttioja, N., Palosuo, T., Fronzek, S., Räisänen, J., **Rötter, R. P.**, Carter, T. R. (2018). Using impact response surfaces to analyse the likelihood of impacts on crop yield under probabilistic climate change. Agricultural and Forest Meteorology 264, 213-224. DOI: 10.1016/j.agrformet.2018.10.006

A 119
Liu, B., Martre, P., Ewert, F., Porter, J. R., Challinor, A. J., Müller, C., […], **Rötter, R.P.**, [...], Asseng, S. (2018). Global wheat production with 1.5 and 2.0°C above pre-industrial warming. Global Change Biology 25 (4), 1428-1444. DOI: 10.1111/gcb.14542

A 118
Asseng, S., Martre, P., Maiorano, A., **Rötter, R. P.**, O'Leary, G. J., Fitzgerald, G. J., Girousse, C.,

Motzo, R., Giunta, F., Babar, M. A., Reynolds, M. P., Kheir, A. M. S., Thorburn, P. J., Waha, K., Ruane, A. C., Aggarwal, P. K., Ahmed, M., Balkovič, J., Basso, B., Biernath, C., […] Ewert, F. (2018). Climate change impact and adaptation for wheat protein. Global Change Biology 00, 1-19. DOI: 10.1111/gcb.14481

A 117
Swanepoel, C.M., **Rötter, R.P.**, van der Laan, M., Annandale, J.G., Beukes, D.J., du Preez, C.C. Swanepoel, L.H., van der Merwe, A., Hoffmann, M.P. (2018). The benefits of conservation agriculture on soil organic carbon and yield in southern Africa are site-specific. Soil and Tillage Research 183, 72-82. DOI: 10.1016/j.still.2018.05.016

A 116
Thorburn, P.J., Boote, K.J., Nendel, C., **Rötter, R.P.**, Ewert, F. (2018). Recent advances in crop modelling to support sustainable agricultural production and food security under global change. European Journal of Agronomy 100, 1-3. DOI: 10.1016/j.eja.2018.10.009

A 115
Tao, H.-H., Donough, C., Gerendas, J., Hoffmann, M.P., Cahyo, A., Sugianto, H., Wandri, R., Abdul Rahim, G., Fisher, M., **Rötter, R.P.**, Dittert, K., Pardon, L., Oberthür, T. (2018). Fertilizer management effects on oil palm yield and nutrient use efficiency on sandy soils with limited water supply in Central Kalimantan. Nutrient Cycling in Agroecosystems 1-17. DOI: 10.1007/s10705-018-9948-0

A 114
Trnka, M., Hayes, M., Jurečka, F., Bartovová, L., Anderson, M., Brázdil, R., Brown, J., Camerero, J., Cudlín, P., Dobrovolný, P., Eitzinger, J., Feng, S., Finnessey, T., Gregorič, G., Havlik, P., Hain, C.,
Holman, I., Johnson, D., Kersebaum, K., Ljungqvist, F., Luterbacher, J., Micale, F., Hartl-Meier, C., Možný, M., Nejedlik, P., Olesen, J., Ruiz-Ramos, M., **Rötter, R.P.**, Senay, G., Vicente-Serrano, S., Svoboda, M., Susnik, A., Tadesse, T., Vizina, A., Wardlow, B., Zalud, Z., Büntgen, U. (2018). Priority questions in multidisciplinary drought research. Climate Research 75(3), 241– 260. DOI: 10.3354/cr01509

A 113
Wallach, D., Martre, P., Liu, B., Asseng, S., Ewert, F., Thorburn, P.J., van Ittersum, M., […] Palosuo, T., Priesack, E., Ripoche, D., **Rötter, R.P.**, Semenov, M.A., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Wolf, J., Zhang, Z. (2018). Multi-model ensembles improve predictions of crop-environment-management interactions. Global Change Biology 24(11), 5072- 5083. DOI: 10.1111/gcb.14411

A 112
Rötter, R.P., Hoffmann, M.P., Koch, M., Müller, C. (2018). Progress in modelling agricultural impacts of and adaptations to climate change. Current Opinion in Plant Biology 45(B), 255-261. DOI: 10.1016/j.pbi.2018.05.009

A 111
Rötter, R.P., Appiah, M., Fichtler, E., K.C. Kersebaum, Trnka, M., Hoffmann, M.P. (2018). Linking modelling and experimentation to better capture crop impacts of agroclimatic extremes - A review. Field Crops Research 221, 142–156. DOI: 10.1016/j.fcr.2018.02.023

A 110

Hoffmann, M.P., Isselstein, J., **Rötter, R.P.**, Kayser, M. (2018). Nitrogen management in crop rotations after the break-up of grassland: Insights from modelling Agriculture. Ecosystems and Environment 259, 28– 44. DOI: 10.1016/j.agee.2018.02.009

A 109
Hoffmann, M.P., Odhiambo, J. J.O., Koch, M., Ayisi, K. K., Zhao, G., Soler, A. S., **Rötter, R.P.** (2018). Exploring adaptations of groundnut cropping to prevailing climate variability and extremes in Limpopo Province, South Africa. Field Crops Research 219, 1-13. DOI: 10.1016/j.fcr.2018.01.019

A 108
Montesino-San Martin, M., Wallach, D., Olesen, J.E., Challinor, A.J., Hoffmann, M.P., Koehler, A.K., **Roetter, R.P.**, Porter, J.R. (2018). Data requirements for crop modelling - Applying thelearning curve approach to the simulation of winter wheat flowering time under climate change. European Journal of Agronomy 95, 33– 44. DOI: 10.1016/j.eja.2018.02.003

A 107
Nelson, W.C.D., Hoffmann, M.P., Vadez, V., **Roetter**, **R.P.**, Whitbread, A.M. (2018). Testing pearl millet and cowpea intercropping systems under high temperatures. Field Crops Research 217, 150- 166. DOI: 10.1016/j.fcr.2017.12.014

A 106
Hoffmann, M.P., M. Haakana, S. Asseng, J.G. Höhn, T. Palosuo, M. Ruiz-Ramos, S. Fronzek, F. Ewert, T. Gaiser, B.T. Kassie, K. Paff, E.E. Rezaei, A. Rodríguez, M. Semenov, A.K. Srivastava, P. Stratonovitch, F. Tao, Y. Chen, **R.P. Rötter**. (2018). How does inter-annual variability of attainable yield affect the magnitude of yield gaps for wheat and maize? An analysis at ten sites. Agricultural Systems 159, 199-208. DOI: 10.1016/j.agsy.2017.03.012

A 105
Abdulai, I., Vaast, P., Hoffmann, M.P., Asare, R., Jassogne, L., van Asten, P., **Rötter, R.P.**, Graefe, S. (2018). Cocoa agroforestry is less resilient to sub-optimal and extreme climate than cocoa in full sun: Reply to Norgrove (2017). Global Change Biology, 24(5). DOI: 10.1111/gcb.14044

A 104
Nendel, C., **Rötter, R.P.**, Thorburn, P.J., Boote, K.J., Ewert, F. (2018). Editorial Introduction to the Special Issue “Modelling cropping systems under climate variability and change: impacts, risk and adaptation”. Agricultural Systems 159, 139-143. DOI: 10.1016/j.agsy.2017.11.005

A 103
Tao, F., **Rötter, R.P.**, Palosuo, T., Díaz-Ambrona, C.G.H., Inés Mínguez, M., Semenov, M.A., Kersebaum, K-C., Nendel, C., Specka, X., Hoffmann, H., Ewert, F., Dambreville, A., Martre, P., Rodríguez, L., Ruiz-Ramos, M., Gaiser, T., Höhn, J.G., Salo, T., Ferrise, R., Bindi, M., Cammarano, D., Schulman, A.H. (2018). Contribution of crop model structure, parameters and climate projections to uncertainty in climate change impact assessments. Global Change Biology 24(3). DOI: 10.1111/gcb.14019

A 102
Fronzek, S., Pirttioja, N., Carter, T. R, Bindi, M., Hoffmann, H., Palosuo, T., Ruiz-Ramos, M., Tao, F., Trnka, M., Acutis, M., Asseng, S., Baranowski, P., B. Basso, P. Bodin, S. Buis, […] **Rötter, R.P.** (2018). Classifying

multi-model wheat yield impact response surfaces showing sensitivity to temperature and precipitation change. Agricultural Systems 159, 209-224. DOI: 10.1016/j.agsy.2017.08.004

A 101

Ruiz-Ramos, M., Ferrise, R., Rodríguez, A., Lorite, I.J., Bindi, M., Carter, T.R., Fronzek, S., T. Palosuo, T., Pirttioja, N., Baranowski, P., Buis, S., Cammarano, D., Chen, Y., Dumont B., Ewert, F., Gaiser, T., Hlavinka, P., Hoffmann, H., Höhn, J.G., Jurecka, F., Kersebaum, K.C., Krzyszczak, J., Lana, M., Mechiche-Alami, A., Minet, J., Montesino, M., Nendel, C, Porter, J.R., Ruget, F., Semenov, M.A., Steinmetz, Z., Stratonovitch, P., Supit, I.,Tao, F., Trnka, M., de Wit, A., **Rötter, R.P.** (2018). Adaptation response surfaces for managing wheat under perturbed climate and CO2 in a Mediterranean environment. Agricultural Systems 159, 260 – 274. DOI: 10.1016/j.agsy.2017.01.009

2017

A 100

Grosz, B., Dechow, R., Gebbert, S., Hoffmann, H., Zhao, G., Constantin, J., Raynal, H., Wallach, D., Coucheney, E., Lewan, E., Eckersten, H., Specka, X., Kersebaum, K.-C., Nendel, C., Kuhnert, M., Yeluripati, J., Haas, E., Teixeira, E., Bindi, M., Trombi, G., Moriondo, M., Doro, L., Roggero, P.P., Zhao, Z., Wang, E., Tao, F., **Rötter, R.P.**, Kassie, B., Cammarano, D., Asseng, S., Weihermüller, L., Siebert, S., Gaiser, T., Ewert, F. (2017). The implication of input data aggregation on up-scaling soil organic carbon changes. Environmental Modelling and Software 96, 361-377. DOI: 10.1016/j.envsoft.2017.06.046

A 99

Abdulai, I., Vaast, P., Hoffmann, M.P., Asare, R., Jassogne, L., van Asten, P., **Rötter, R.P.**, Graefe, S. (2017). Cocoa agroforestry is less resilient to sub-optimal and extreme climate than cocoa in full sun. Global Change Biology 24(1), 273-286. DOI: 10.1111/gcb.13885

A 98

Chen, Y., Zhang, Z., Tao, F., Palosuo, T., **Rötter, R.P.** (2017). Impacts of heat stress on leaf area index and growth duration of winter wheat in the North China Plain. Field Crops Research 222, 230- 237. DOI: 10.1016/j.fcr.2017.06.007

A 97

Wang, E., Martre, P., Zhao, Z., Ewert, F., Maiorano, A., **Rötter, R.P.**, Kimball, B.A. , Ottmann, M.J., Wall, G.W., White, J.W., Reynolds, M.P., Alderman, P.D., Aggarwal, P.,Anothais, J., Basso, B., Biernath, C., Cammarano, D., Challinor, A.J.,De Sanctis, G., Doltra, J., Fereres, E., Garcia,-Vila, M., Gayler, S., Hoogenboom, G., Hunt, T., Izaurralde,R. C., Jabloun, M., Jones, C.D., Kersebaum, K-C., Koehler, A-K., Liu, L., Müller, C., Kumar, S.N., Nendel, C., O`Leary, G., Olesen, J.E., Palosuo, T., Priesack, E., Rezaei, E.E., Ripoche, D., Ruane, A., Semenov, M., Shcherbak, I., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Thorburn, P., Waha, K., Wallach, D., Wang, Z., Wolf, J., Zhu, Y., Asseng, S. (2017). The uncertainty of crop yield projections is reduced by improved temperature response functions. Nature Plants 3, 17102. DOI: 10.1038/nplants.2017.102

A 96

Yin, X., Kersebaum, K. C., Kollas, C., Manevski, K., Baby, S., Beaudoin, N […] **Rötter**, **R.P.**, Ruget, F., Sharif, B., Trnka, M., Ventrella, D., Weigel, H.-J, Olesen, J. E. (2017). Performance of process-based models for simulation of grain N in crop rotations across Europe. Agricultural Systems 154, 63-77. DOI:

10.1016/j.agsy.2017.03.005

A 95
Tao, F., Xiao, D., Zhang, S., Zhang, Z., **Rötter, R.P.** (2017). Wheat yield benefited from increases in minimum temperature in the Huang-Huai-Hai Plain of China in the past three decades. Agricultural and Forest Meteorology 239, 1-14. DOI: 10.1016/j.agrformet.2017.02.033

A 94
Martre, P., Reynolds, M.P., Asseng, S., Ewert, F., Alderman, P.D., Cammarano, D., Maiorano, A., Ruane, A.C., Aggarwal, P.K., Anothai, J., Basso, B., Biernath, C., Challinor A.J., De Sanctis, G., Doltra, J., Dumont B, […] **Rötter R.P.**, […] Wolf J, Zhao Z, and Zhu Y. (2017). The International Heat Stress Genotype Experiment for modeling wheat response to heat: field experiments and AgMIP -Wheat multi- model simulations. Open Data Journal for Agricultural Research 3, 23-28. DOI: 10.18174/odjar.v3i1.15766

A 93
Durand, J. L., Delusca, K., Boote, K., Lizaso, J., Manderscheid, R., Weigel, H. J. […] **Reimund, R.P.,** […] Wang, E., Webber, H., Zhao, Z. (2017). How accurately do maize crop models simulate the interactions of atmospheric CO2 concentration levels with limited water supply on water use and yield? European Journal of Agronomy 100, 67-75. DOI: 10.1016/j.eja.2017.01.002

A 92
Yin, X., Kersebaum, K.C., Kollas, C., Baby, S., Beaudoin, N., Manevski, K., Palosuo, T., Nendel, C., Wu, L., […], **Rötter, R.P.**, Ruget, F., Trnka, M., Ventrella, D., Weigel, H.J. (2017). Multi-model uncertainty analysis in predicting grain N for crop rotations in Europe. European Journal of Agronomy 84, 152- 165. DOI: 10.1016/j.eja.2016.12.009

2016

A 91
Tao, F., **Rötter, R.P.**, Palosuo, T., Díaz-Ambrona, C.G.H., Minguez, M.I., Semenov, M.A., Kersebaum, K.C., Nendel, C., Cammarano, D., Hoffmann, H., Ewert, F., Dambreville, A., Martre, P., L. Rodríguez, L., RuizRamos, M., Gaiser, T., Höhn, J.G., Salo, T., Ferrise, R., Bindi, M., Schulman, A.H. (2016).
Designing future barley ideotypes using a crop model ensemble. European Journal of Agronomy 87, 144- 162. DOI: 10.1016/j.eja.2016.10.012

A 90
A., Martre, P., Asseng, S., Ewert, E., Mueller, C., **Rötter, R.P.,** […] Whiter, J.W., Zhaoiz, Z., Zhus, Y. (2016). Crop model improvement reduces the uncertainty of the response to temperature of multi- model ensembles. Field Crops Research 202, 5-20. DOI: 10.1016/j.fcr.2016.05.001

A 89
Liu, B., Asseng, S., Müller, C., Ewert, F., Elliott, J., Lobell, D.B., Martre, P., Ruane, A.C., Wallach, D., Jones, J.W., Rosenzweig, C. […] **Rötter, R.P.,** […] 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

A 88

Wallach, D., Mearns, L.O. Ruane, A.C., **Rötter, R.P.,** Asseng, S. (2016). Lessons from climate modeling on the design and use of ensembles for crop modeling. Climate Change 139 (3-4), 551–564. DOI: 10.1007/s10584-016-1803-1

A 87

Trnka, M., Olesen, J.E., Kersebaum, K.C., **Rötter, R.P.,** Brázdil. R., Eitzinger, J., Jansen, S., Skjelvåg, A. O., Peltonen-Sainio, P., Hlavinka, P., Balek, J., Eckersten, H., Gobin, R.A., Vučetić, V., Dalla Marta, A., Orlandini, S., Alexandrov, V., Semerádová, D., Štěpánek, P., Svobodová, E., Rajdl, K. (2016). Changing regional weather-crop yield relationships across Europe between 1901 and 2012. Climate Research 70, 195214. DOI: 10.3354/cr01426CR

A 86

Wallach, D., Thorburn, P., Asseng, S., Challinor, A.J., Ewert, F., Jones, J.W., **Rötter, R.P.,** Ruane, A.C. (2016). Estimating model prediction error: Should you treat predictions as fixed or random? Environmental Modelling & Software 84, 529–539. DOI: 10.1016/j.envsoft.2016.07.010

A 85

Cammarano, D., **Rötter, R.P.,** Asseng, S., Ewert, F., Wallach, D., Martre, P., Hatfield, J.L., Jones, J.W., Rosenzweig, C., Ruane, A.C., Boote, K.J., Thorburn, P.J., Kersebaum, K.C., Aggarwal, P.K., Angulo, C., Basso, B., Bertuzzi, P., Biernath, C., Brisson, N., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izurralde, R.C., Müller, C., Naresh Kumar, S., Nendel, C., O'Leary, G., Olesen, J.E., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M.A., Steduto, P., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., White, J.W., Wolf, J. (2016). Uncertainty of wheat water use: Simulated patterns and sensitivity to temperature and CO2. Field Crops Research 198, 80–92. DOI: 10.1016/j.fcr.2016.08.015.

A 84

Hoffmann, H., Zhao, G., Asseng, S., Bindi, M., Biernath, C., Constantin, J., Coucheney, E., Dechow, R., Doro, L., Eckersten, H., Gaiser, T., Glotter, F. H., Kassie, B.T., Kersebaum, K.C., Klein, C., Nendel, C., Priesack, E., Raynal, H., Romero, C.C., **Rötter, R.P.**, Specka, X., Tao, F., Teixeira, e., Trombi, G., Wallach, D., Weihermüller, L., Yeluripathi, J., Ewert, F. (2016). Impact of spatial soil and climate input data aggregation on regional yield simulations. PloS ONE 11(4), e0151782. DOI: 10.1371/journal.pone.0151782.

A 83

Ruane, A.C., Hudson, N.I., Asseng, S., Cammerano, D., Ewert, F., Martre, P., Boote, K.J., Thorburn, P.J., Pramod K. Aggarwal , Brisson, N., Bertuzzi, C., Biernath, C., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Kersebaum, K.C., Müller, C., Naresh Kumar, S., 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., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., Wallach, D., White, J.W., Wolf, J. (2016). Multi- wheat-model ensemble responses to interannual climate variability. Environmental Modelling & Software 81, 86-101. DOI: 10.1016/j.envsoft.2016.03.008

A 82

Zhao, G, Hoffmann, H, Yeluripati, J., Specka, X., Nendel, C., Coucheney, E., Kuhnert, M., Tao F., Constantin, J., Raynal, H., Teixeira, E., Grosz, B., Doro, L., Kiese, R., Eckersten, H., Haas, E., Cammarano, D., Kassie, B., Moriondo, M., Trombi, G., Bindi, M., Biernath, C., Heinlein, F., Klein, C., Priesack, E., Lewan, E., Kersebaum, K.C., **Rötter, R.P.**, Roggero, P.P., Wallach, D., Asseng, S., Siebert, S., Gaiser, T., Ewert.,F. (2016). Evaluating the precision of eight spatial sampling schemes in estimating regional means of simulated yield for two crops. Environmental Modelling & Software 80, 100-112. DOI: 10.1016/j.envsoft.2016.02.022

A 81
Van Bussel, L.G., Ewert, F., Zhao, G., Hoffmann, H., Enders, A., Wallach, D., Asseng, S., Baigorria, G.A., Basso, B., Biernath, C., Cammarano, D., Chryssanthacopoulos, J., Constantin, J., Elliott, J., Glotter, M., […] **Rötter, R. P.**, Specka, X, Tao, F. (2016). Spatial sampling of weather data for regional crop yield simulations. Agriculture and Forest Meteorology 220, 101-115. DOI: 10.1016/j.agrformet.2016.01.014

A 80
Tao, F., Zhao, Z., Shuai Z., **Rötter, R.P.** (2016). Variability in crop yields associated with climate anomalies in China over the past three decades. Regional Environmental Change 16 (6), 1715- 1723. DOI 10.1007/s10113-015-0920-0.

A 79
Tao, F., Zhao, Z., Shuai Z., **Rötter, R.P.**, Wenjiao, S., Dengpan, X., Yujie, L., Meng, W., Fengshan, L. and He, Z. (2016). Historical data provide new insights into response and adaptation of maize grain yield to climate change in China. Field Crops Research 185, 1-11. DOI: 10.1016/j.fcr.2015.10.013

A 78
Liu, X., Lehtonen, H. Purola, T., Pavlova, J., **Rötter, R.P.**, Palosuo, T. (2016). Dynamic economic modelling of crop rotation with farm management practices under future pest pressure. Agricultural Systems 144, 65–76. DOI:10.1016/j.agsy.2015.12.003.

A 77
Salo, T., Palouso, T., Palouso, T., Nendel, C. Angulo, C., Hlavinka, P., Moriondo, M., Olesen, J.E., Patil, R.H., Ruget, F., Rumbaur, C., Takác, J., Trnka, M., Bindi, M., Ewert, F., Ferrise, R., **Rötter, R.P.** (2016). Comparing the performance of 11 crop simulation models in predicting yield response to nitrogen fertilization. The Journal of Agricultural Science 154, 7, 1218-1240. DOI: 10.1017/S0021859615001124.

2011-2015

A 76
Asseng, S., Ewert, F., Martre, P., Rosenzweig, C., Jones, J., Hatfield, J., Ruane, A., Boote, K., Thorburn, P., **Rötter, R.P.**, Cammarano, D., Basso, B., Aggarwal, P., Angulo, C., Bertuzzi, P., Biernath, C., Challinor, A., Doltra, J., Gayler, S., Goldberg, R., Grant, R., Heng, L., Hooker, J., Hunt, T., Ingwersen, J., Izaurralde, C., Kersebaum, C., Müller, C., Kumar, S.N., Nendel, C., O`Leary, G., Olesen, J., Osborne, T., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M., Shcherbak, I., Steduto, P., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., Wallach, D., White, J., Williams, J. and Wolf, J. (2015). Benchmark data set for wheat growth models: field experiments and AgMIP multi- model simulations. Open Data journal for Agricultural Research 1, 1-5. DOI: 10.18174/odjar.v1i1.14746.

A 75

Makowski, D. Asseng, S., Ewert, F., S. Bassu, J.L. Durand, T. Li, P. Martre, M. Adam, P.K. Aggarwal, C. Angulo, C. Baronj, B. Bassok, P. Bertuzzi, C. Biernath, H. Boogaard, K.J. Boote, B. Bouman, S. Bregaglio, N. Brisson, S. Buis, D. Cammarano, A.J. Challinor, , R. Confalonieri, J.G. Conijn, M. Corbeels, D. Deryng, G. De Sanctis, J. Doltra , T. Fumoto, D. Gaydon, S. Gayler, R. Goldberg, R.F. Grant, P. Grassini , J.L. Hatfield, T. Hasegawa, L. Heng, S. Hoek, J. Hooker H, L.A. Hunt, J. Ingwersen, […], **R.P. Rötter**, K. Waha, D. Wallach, J.W. White, P. Wilkens, J.R. Williams, J. Wolf, X. Yin, H. Yoshida, Z. Zhang, Y. Zhu. (2015). A statistical analysis of three ensembles of crop model responses to temperature and CO2 concentration. Agricultural and Forest Meteorology 214-215: 483–493. DOI: 10.1016/j.agrformet.2015.09.013

A 74

Palosuo, T., **Rötter, R.P.**, Salo, T., Peltonen-Sainio, P., Tao, F., Lehtonen, H. (2015). Effects of climate and historical adaptation measures on barley yield trends in Finland. Climate Research 65, 221– 236. DOI: 10.3354/cr01317.

A 73

Pirttioja, N., Carter, T.R., Fronzek, S., Bindi, M., Hoffmann, H., Palosuo, T., Ruiz-Ramos, M., Tao, F., Trnka, M., Acutis, M., Asseng, S., Baranowski, P., Basso, B., Bodin, P., Buis, S., Cammarano, D., Deligios, P., Destain, M.F., Dumont, B., Ewert, F., Ferrise, R., François, L., Gaiser, T., Hlavinka, P., Jacquemin, I., Kersebaum, K.C., Kollas, C., Krzyszczak, J., Lorite, I.J., Minet, J., Minguez, M.I., Montesino, M., Moriondo, M., Müller, C., Nendel, C., Öztürk, I., Perego, A., Rodríguez, A., Ruane, A.C., Ruget, F., Sanna, M., Semenov, M.A., Slawinski, C., Stratonovitch, P., Supit, I., Waha, K., Wang, E., Wu, L., Zhao, Z., **Rötter, R.P.** (2015). A crop model ensemble analysis of temperature and precipitation effects on wheat yield across a European transect using impact response surfaces. Climate Research 65, 87–105. DOI: 10.3354/cr01322

A 72

Zhao, G., Hoffmann, H., van Bussel, L.G., Enders, A., Specka, X., Sosa, C., Yeluripati, J., Tao, F., Constantin, J., Raynal, H., Teixeira, E., Grosz, B., Doro, L., Zhao, Z., Nendel, C., Kiese, R., Eckersten, H., Haas, E., Vanuytrecht, E., Wang, E., Kuhnert, M., Trombi, G., Moriondo, M., Bindi, M., Lewan, E., Bach, M., Kersebaum, K.C., **Rötter, R.**, Roggero, P.P., Wallach, D., Cammarano, D., Asseng, S., Krauss, G., Siebert, S., Gaiser, T., Ewert, F. (2015). Effect of weather data aggregation on regional crop simulation for different crops, production conditions, and response variables. Climate Research 65, 141-157. DOI: 10.3354/cr01301

A 71

Hoffmann, H., Zhao, G., van Bussel, L.G.J., Enders, A., Specka, X., Sosa, C., Yeluripati, J., Tao, F., Constantin, J., Raynal, H., Teixeira, E., Grosz, B, Doro, L., Zhao, Z., Wang, E., Nendel, C., Kersebaum, K.C., Haas, E., Kiese, R., Klatt, S., Eckersten, H., Vanuytrecht, E., Kuhnert, M., Lewan, E., **Rötter, R.P.**, Roggero, P.P., Wallach, D., Cammarano, D., Asseng, S., Krauss, G., Siebert, S., Gaiser, T., Ewert, F. (2015). Variability of spatial aggregation effects of climate data on regional yield simulation by crop models for a selected region in Germany. Climate Research 65, 53-69. DOI: 10.3354/cr01326

A 70

Tao, F., **Rötter, R.P.**, Palosuo, T., Höhn, J., Peltonen-Sainio, P., Rajala, A., Salo, T. (2015). Assessing climate impacts on wheat yield and water use in Finland using a super-ensemble-based probabilistic approach. Climate Research 65, 23–37. DOI: 10.3354/cr01318

A 69
Kollas, C., Kersebaum, K.C., Nendel, C., […] **Rötter, R.P.** […], Wegehenkel, M., Weigel, J., Wu, L. (2015). Crop rotation modelling – a European model intercomparison. European Journal of Agronomy 70, 98-111. DOI: 10.1016/j.eja.2015.06.007

A 68
de Wit, A., Boogaard, H., van Diepen, K., van Kraalingen, D., **Rötter, R.**, Supit, I., Wolf, J., van Ittersum, M.K. (2015). WOFOST developer's response to article by Stella et al. Environmental Modelling & Software 59 (2014): 44–58. DOI: 10.1016/j.envsoft.2015.07.005.

A 67
Tao, F., Zhang, Z., Zhang, S., **Rötter R.P.** (2015). Heat stress impacts on wheat growth and yield were reduced in the Huang-Huai-Hai Plain of China in the past three decades. European Journal Agronomy 71, 44–52. DOI: 10.1016/j.eja.2015.08.003

A 66
Rötter R.P., Tao, F., Höhn, J.G., Palosuo, T. (2015). Designing new cereal cultivars using crop simulation modelling. Aspects of Applied Biology 124, 45-48.

A 65
Kersebaum, K.C., Boote, K.J., Jorgenson, J.S. Nendel, C., Bindi, M., Fruehauf, C. Gaiser, T. Hoogenboom, G., Kollas, C. Olesen, J.E., **Rötter, R.P.**, Ruget, F., Thorburn, P.J., Trnka, M., Wegehenkel, M. (2015). Analysis and classification of data sets for calibration and validation of agro- ecosystem models. Environmental Modelling & Software 72, 402-417. DOI: 10.1016/j.envsoft.2015.05.009.

A 64
Tao, F., Zhang, S, Zhang Z., **Rötter R.P.** (2015). Temporal and spatial changes of maize yield potentials and yield gaps in the past three decades in China. Agriculture. Ecosystems and Environment 208, 12–20. DOI: 10.1016/j.agee.2015.04.020

A 63
Rötter R.P., Tao, F., Höhn, J.G., Palosuo, T. (2015). Use of crop simulation modelling to aid ideotype design of future cereal cultivars. Journal of Experimental Botany 66 (12), 3463-3476. DOI:10.1093/jxb/erv098erv098.

A 62
Kassie, B.T., Asseng, S., **Rötter R.P.**, Hengsdijk, H., Ruane, A.C., van Ittersum, M.K. (2015). Exploring climate change impacts and adaptation options for maize production in the Central Rift Valley of Ethiopia using different climate change scenarios and crop models. Climatic Change 129 (1- 2), 145- 158. DOI: 10.1007/s10584-014-1322-x.

A 61
Ewert, F., **Rötter, R.P.**, Bindi, M., Webber, H., Trnka, M., Kersebaum, K-C., Olesen, J. E., van Ittersum, M.K., Janssen, S., Rivington, M., Semenov, M., Wallach, D., Porter, J.R., Stewart, D., Verhagen, J., Gaiser, T., Palosuo, T., Tao, F., Nendel, C., Roggero, P-P., Bartosova, L., Asseng, S. (2015). Crop modelling for integrated

assessment of risk to food production from climate change. Environmental Modelling & Software 72, 287-303. DOI: 10.1016/j.envsoft.2014.12.003

A 60

Asseng, S., Ewert, F., Martre, P., **Rötter, R.P.**, Lobell, D., Cammarano, D., Kimball, B.A., Ottmann, M.J., Wall, G.W., White, J.W., Reynolds, M.P., Aldermann, P.D., Prasad, V.V., Boote, K.J., Brisson, N., Martre, P., Aggarwal, P.K., Angulo, C., Basso, B., Bertuzzi, P., Biernath, C., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Grant, R., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izurralde, R.C., Kersebaum, K.C., Müller, C., Naresh Kumar, S., Nendel, C., O'Leary, G., Olesen, J.E., Palosuo, T., Priesack, E., Ripoche, D., Ruane, A.C., Semenov, M.A., Shcherbak, I., Steduto, P., 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, 143147. DOI: 10.1038/nclimate2470

A 59

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., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Grant, R., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Iz,rralde, R.C., Kersebaum, K.C., Müller, C., Naresh Kumar, S., Nendel, C., O'Leary, G., Olesen, J.E., Osborne, T.M., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M.A., Shcherbak, I., Steduto, P., Stockle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., White, J.W., Williams, J.R., Wolf, J. (2015). Multimodel ensembles of wheat growth: more models are better than one. Global Change Biology 21, 911–925. DOI: 10.1111/gcb.12768.

A 58

Höhn, J.G., **Rötter, R.P.** (2014). Impact of climate change on cereal production in Europe. CAB Reviews 9 (22), 1-15.

A 57

Angulo, C., Gaiser, T., **Rötter, R.P.**, Børgesen, C.D., Hlavinka, P., Trnka, M., Ewert, F. (2014). 'Fingerprints' of four crop models as affected by soil input data aggregation. European Journal of Agronomy 61, 35-48. DOI: 10.1016/j.eja.2014.07.005

A 56

Tao, F., Shuai Zhang, Zhao Zhang, **Rötter R.P.** (2014).Maize growing duration was prolonged across China in the past three decades under the combined effects of temperature, agronomic management, and cultivar shift. Global Change Biology 20 (12), 3686-3699. DOI: 10.1111/gcb.12684

A 55

Trnka, M., **Rötter, R.P.,** Ruiz-Ramos, M. Kersebaum, K-C., Olesen, J.E., Semenov, M.A. (2014). Adverse weather conditions for wheat production in Europe will become more frequent with climate change. Nature Climate Change, 4, 637-643. DOI: 10.1038/nclimate2242

A 54

Rötter, R.P. Robust uncertainty. (2014). Nature Climate Change, 4, 251-252. DOI: 10.1038/nclimate2181.

A 53
Kassie, B.T., Van Ittersum, M.K., Hengsdijk, H., Asseng, S., Wolf, J., **Rötter, R.P.** (2014). Climate- induced yield variability and yield gaps of maize (Zea mays L.) in the Central Rift Valley of Ethiopia. Field Crops Research, 160, 41-53. DOI: 10.1016/j.fcr.2014.02.010

A 52
Kahiluoto, H., Kaseva, J., Himanen, S., Hakkala, K., **Rötter, R.P.**, Trnka, M. (2014). Cultivating resilience by empirically revealing response diversity. Global Environmental Change, 25, 186-193. DOI: 10.1016/j.gloenvcha.2014.02.002

A 51
Tao, F., Zhao Zhang, Dengpan Xiao, Shuai Zhang, **Rötter R.P.**, Shi, W., Liu, Y., Wang, M., Liu, F., Zhang, H. (2014). Responses of wheat growth and yield to climate change in different climate zones of China, 1981–2009. Agricultural and Forest Meteorology, 189– 190, 91–104. DOI: 10.1016/j.agrformet.2014.01.013

A 50
Van Trinh, M., Van Keulen, H., Hessel, R., Ritsema, C., **Rötter, R.P.**, Phien, T. (2013). Influence of paddy rice terraces on soil erosion of a small watershed in a hilly area of Northern Vietnam. Paddy and Water Environment 11 (1-4), 285-298. DOI: 10.1007/s10333-012-0318-2

A 49
Rötter, R.P., Höhn, J., Trnka, M., Fronzek, S. Carter, T.R., Kahiluoto, H. (2013). Modelling shifts in agroclimate and crop cultivar response under climate change. Ecology and Evolution 3, 4197- 4214. DOI:10.1002/ece3.782

A 48
Cammarano, D., **Rötter, R.P.**, Asseng, S., Ewert, F., Rosenzweig, C., Jones, J.W., Hatfield, J.L., Basso, B., Ruane, A., Boote, K.J., Thorburn, P., Brisson, N., Martre, P., Aggarwal, P.K., Angulo, C., Pertuzzi, C., Biernath, C., Challinor, A.J., Doltra, J., Gayler, S., Goldberg, R., Heng, L., Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Kersebaum, K.C., Müller, C., Naresh Kumar, S., 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., Wolf, J. (2013). Quantifying Uncertainties in Modeling Crop Water Use under Climate Change. Proceedings of the Impacts World 2013 conference at Potsdam, Germany, May 2013, 206-220. DOI: 10.2312/pik.2013.001

A 47
Palosuo, T., **Rötter, R.P.**, Lehtonen, H., Virkajärvi, P., Salo, T. (2013). How to assess climate change impacts on farmers' crop yields? Proceedings of the Impacts World 2013 conference at Potsdam, Germany, May 2013, 327-334. DOI: 10.2312/pik.2013.001

A 46
Rötter, R.P., Ewert, F., Palosuo, T., Bindi, M., Kersebaum, K.C., Olesen, J. E., Trnka, M., van Ittersum, M.K., Janssen, S., Rivington, M., Semenov, M., Wallach, D., Porter, J.R., Stewart, D., Verhagen, J., Angulo, C., Gaiser, T., Nendel, C., Martre, P., de Wit, A. (2013). Challenges for agro- ecosystem modelling in climate change risk assessment for major European crops and farming systems. Proceedings of the Impacts World 2013 conference at Potsdam, Germany, May 2013. DOI: 10.2312/pik.2013.001

A 45

Kassie, B.T., Hengsdijk, H., **Rötter, R.P.**, Kahiluoto, H., Asseng, S., Van Ittersum, M.K. (2013). Adapting to Climate Variability and Change: Experiences from Cereal-Based Farming in the Central Rift and Kobo Valleys. Environmental Management 52. Ethiopia. DOI 10.1007/s00267-013-0145-2

A 44

Kassie, B.T., **Rötter, R.P.**, Hengsdijk, H., van Ittersum, M.K., Asseng, S., van Keulen, H. (2013). Climate variability and change in the Central Rift Valley of Ethiopia: Challenges for rainfed crop production. The Journal of Agricultural Science 151, 871-887. DOI: 10.1017/S0021859612000986

A 43

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., Izurralde, R.C., Kersebaum, K.C., Müller, C., Naresh Kumar, S., Nendel, C., O'Leary, G., Olesen, J.E., Osborne, T.M., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M.A., Shcherbak, I., Steduto, P., Stockle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., Wallach, D., White, J.W., Williams, J.R., Wolf, J. (2013). Uncertainty in simulating wheat yields under climate change. Nature Climate Change 3, 827-832. DOI: 10.1038/nclimate1916

A 42

Angulo, C., **Rötter, R.P.**, Trnka, M., Pirttioja, N., Gaiser, T., Hlavinka, P., Ewert, F. (2013). Characteristic‘fingerprints’ of crop model responses to weather input data at different spatial resolutions. EuropeanJournal of Agronomy 49, 104-114. DOI: 10.1016/j.eja.2013.04.003

A 41

Angulo, C., **Rötter, R.P.**, Lock, R., Enders, A., Fronzek, S., Ewert, F. (2013). Implication of crop model calibration strategies for assessing regional impacts of climate change in Europe. Agricultural and Forest Meteorology 170, 32-46. DOI: 10.1016/j.agrformet.2012.11.017

A 40

Himanen, S., Ketoja, E., Hakala, K., **Rötter, R.P.**, Salo, T., Kahiluoto, H**.** (2013). Cultivar diversity has great potential to increase yield for feed barley. Agronomy for Sustainable Development 33, 519-530. DOI: 10.1007/s13593-012-0120-y

A 39

Eitzinger, J., Thaler, S., Schmid, E., Strauss, F., Ferrise, R., Moriondo, M., Bindi, M., Palosuo, T., **Rötter, R.P.**, Kersebaum, K.C., Olesen, J.E., Patil, R.H., Saylan, B., Caldag, B., Caylak, O. (2013). Sensitivities of crop models to extreme weather conditions during flowering period demonstrated for maize and winter wheat in Austria. The Journal of Agricultural Science 151, 813- 835. DOI: 10.1017/S0021859612000779

A 38

Rötter, R.P., Höhn, J., Fronzek, S. (2012). Projections of climate change impacts on crop production – a global and a Nordic perspective. Acta Agriculturae Scandinavica, Section A. Animal Science 62, 166- 180. DOI: 10.1080/09064702.2013.793735

A 37

Olesen, J.E., Børgesen, C.D., Elsgaard, L., Palosuo, T., **Rötter, R.P.**, Skjelvåg, A.O., Peltonen- Sainio, P., Börjesson, T., Trnka, M., Ewert, F., Siebert, S., Brisson, N., Eitzinger, J., van Asselt, E.D., Oberforster, M., van der Fels-Klerx, H.J. (2012). Changes in time of sowing, flowering and maturity of cereals in Europe under climate change. Food Additives & Contaminants: Part A, 29, 1527-1542. DOI: 10.1080/19440049.2012.712060

A 36

Elsgaard, L., Børgesen, C.D., Olesen, J.E., Siebert, S., Ewert, F., Peltonen-Sainio, P., **Rötter, R.P.**, Skjelvåg, A.O. (2012). Shifts in comparative advantages for maize, oat, and wheat cropping under climate change in Europe. Food Additives & Contaminants: Part A, 29, 1514-1526. DOI: 10.1080/19440049.2012.700953

A 35

Rötter, R.P., Palosuo, T., Kersebaum, K.-C., Angulo, C., Bindi, M., Ewert, F., Ferrise, R., Hlavinka, P., Moriondo, M., Olesen, J.E., Takáč, J., Trnka, M. (2012). Simulation of spring barley yield in different climatic zones of Northern and Central Europe: A comparison of nine crop growth models. Field Crops Research, 133, 23-36.

A 34

Kahiluoto, H., Rimhanen, K., **Rötter, R.P.**, Tseganeh, B.K. (2012). Mitigation of climate change to enhance food security: an analytical framework. Forum for Development Studies 39, 51-73. DOI: 10.1080/08039410.2011.635381

A 33

Hakala, K., Jauhiainen, L., Himanen, S.J., **Rötter, R.P.**, Salo, T., Kahiluoto, H. (2012). Sensitivity of barley varieties to weather in Finland. The Journal of Agricultural Science 150, 145-160. DOI: 10.1017/S0021859611000694

A 32

Rötter, R.P., Palosuo, T., Pirttioja, N.K., Dubrovsky, M., Salo, T., Fronzek, S., Aikasalo, R., Ristolainen, A., Carter, T.R. (2011). What would happen to barley production in Finland if global warming exceeded 4°C? A model-based assessment. European Journal of Agronomy 35, 205-214. DOI: 10.1016/j.eja.2011.06.003

A 31

Rötter, R.P., Carter, T.R., Olesen, J.E., Porter, J.R. (2011). Crop-climate models need an overhaul. Nature Climate Change 1, 175-177. DOI: 10.1038/nclimate1152

A 30

Palosuo, T., Kersebaum, K.-C., Angulo, C., Hlavinka, P., Moriondo, M., Olesen, J.E., Patil, R.H., Ruget, F., Rumbaur, C., Takáč, J., Trnka, M., Bindi, M., Çaldağ, B., Ewert, F., Ferrise, R., Mirschel, W., Şaylan, L., Šiška, B., **Rötter, R.P.** (2011). Simulation of winter wheat yield and its variability in different climates of Europe: A comparison of eight crop growth models. European Journal of Agronomy 35, 103- 114. DOI: 10.1016/j.eja.2011.05.001

A 29

Trnka, M., Olesen, J.E., Kersebaum, K.C., Skjelvåg, A.O., Eitzinger, J., Seguin, B., Peltonen- Sainio, P., **Rötter, R.P.**, Iglesias, A., Orlandini, S., Dubrovský, M., Hlavinka, P., Balek, J., Eckersten, H., Cloppet, E., Calanca, P., Gobin, A., Vucetic, V., Nejedlik, P., Kumar, S., Lalic, B., Mestre, A., Rossi, F., Kozyra, J., Alexandrov, V., Semerádová, D., Zalud, Z. (2011). Agroclimatic conditions in Europe under climate change. Global Change Biology 17(7), 2415-2427. DOI: 10.1111/j.1365- 2486.2011.02396.x

1992 – 2010

A 28
Lehtonen, H.S., **Rötter, R.P.**, Palosuo, T.I, Salo, J.S., Helin, J.A., Pavlova, Y., Kahiluoto, H.M. (2010). A modelling framework for assessing adaptive management options of Finnish Agrifood systems to climate change. Journal of Agricultural Science 2, 3-16. DOI: 10.5539/jas.v2n2p3

A 27
Mai, V.T., Van Keulen, H., **Rötter, R.P.** (2010). Nitrogen leaching in intensive cropping systems in Tam Duong district, Red River Delta of Vietnam. Water Air Soil Pollution 210, 15-31. DOI: 10.1007/s11270-009-0219-1

A 26
de Bruin, K., Dellink, R.B., Ruijs, A., Bolwidt, L., van Buuren, A., Graveland, J., de Groot, R.S., Kuikman, P.J., Reinhard, S., **Rötter, R.P.**, Tassone, V.C., Verhagen, A., van Ierland, E.C. (2009). Adapting to climate change in The Netherlands: an inventory of climate adaptation options and ranking of alternatives. Climatic Change 95, 23-45. DOI: 10.1007/s10584-009-9576-4

A 25
Rötter R.P., Berg, M.M. van den, Hengsdijk, H., Wolf, J., van Ittersum, M.K., Van Keulen, H., Epifania, O.A., Tran Thuc Son, Nguyen Xuan Lai, Wang Guanghuo, Laborte, A.G. (2007): A farm and regional modelling approach to integrated resource management in East and South-east Asia. Special Issue, Environmental Modelling & Software, 22, 149-157.

A 24
Bouma, J., Stoorvogel, J., Quiroz, R., Staal, S., Herrero, M., Immerzeel, W., **Rötter, R.P.,** van den Bosch, R., Sterk, G.J., Rabbinge, R., Chater, S. (2007). Ecoregional Research for Development. Advances in Agronomy, 93, 257-311

A 23
Van Paassen, A., **Rötter R.P.**, Van Keulen, H., Hoanh, C.T. (2007). Can computer models stimulate learning about sustainable land use? Experience with LUPAS in the humid (sub-)tropics of Asia. Agricultural Systems, 94, 874-887.

A 22
Hengsdijk, H., Wang, G., van den Berg, M.M., Wang, J., Wolf, J., Lu C., **Rötter, R.P.**, Van Keulen, H. (2007). Disentangling poverty and biodiversity in the context of rural development: A case study for Pujiang county, China. Agricultural Systems, 94, 851-861.

A 21

van den Berg, M.M., Hengsdijk, H., Wolf, J., Van Ittersum, M.K., Wang, G., **Rötter, R.P.** (2007). The impact of increasing farm size and mechanization on rural income and rice production in Zhejiang province, China. Agricultural Systems 94, 841-850. DOI: 10.1016/j.agsy.2006.11.010

A 20

Rötter, R.P., van Keulen, H., Hengsdijk, H., van den Berg, M.M. (2007). Sustainable resource management and policy options for rice ecosystems. Agricultural Systems 94, 763-765. DOI: 10.1016/j.agsy.2006.11.003

A 19

Ponsioen, T.C., Hengsdijk, H., Wolf, J., Ittersum, M.K. van, **Rötter, R.P.**, Son, T.T., Laborte, A.G. (2006). TechnoGIN, a tool for exploring and evaluating resource use efficiency of cropping systems in East and Southeast Asia. Agricultural Systems 87(1), 80-100. DOI: 10.1016/j.agsy.2004.11.006

A 18

Ewert, F., van Keulen, H., van Ittersum, M., Giller, K., Leffelaar, P., **Rötter, R.P.** (2006). Multi- scale analysis and modelling of natural resource management options. Proceedings of the iEMSs Third Biennial Meeting "Summit on Environmental Modelling and Software" at Burlington, USA, July 2006, CD ROM. Internet: http://www.iemss.org/iemss2006/sessions/all.html

A 17

Hengsdijk, H., Van den Berg, M., **Rötter, R.P.**, Wang G., Wolf, J., Lu, C.H., Van Keulen, H. (2005). Consequences of technologies and production diversification for the economic and environmental performance of rice-based farming systems in East and South-east Asia. Proceedings of the World Rice Research Conference at Tsukuba, Japan, November 2004, 422-425.

A 16

Fang, B., van den Berg, M.M., Wang, G., **Rötter, R.P.** (2005). Identification of technology options for reducing nitrogen pollution in cropping systems of Pujiang. Journal of Zhejiang University Science, 6B, 981990.

A 15

Wolf, J., Hack-ten Broeke, M.J.D., **Rötter, R.P.** (2005). Simulation of nitrogen leaching in sandy soils in the Netherlands with the ANIMO model and the integrated modelling system STONE. Agriculture, Ecosystems & Environment 105, 523-540. DOI: 10.1016/j.agee.2004.07.010

A 14

Rötter, R.P., Hoanh, C.T., Laborte, A.G., Van Keulen, H., Van Ittersum, M.K., Dreiser, C., Van Diepen, C.A., De Ridder, N., Van Laar, H.H. (2005). Integration of Systems Network (SysNet) tools for regional land use scenario analysis in Asia. Environmental Modelling & Software 20 (3), 291 -307. DOI: 10.1016/j.envsoft.2004.01.001

A 13

Wolf, J., **Rötter, R.P.**, Oenema, O. (2005). Nutrient emission models in environmental policy evaluation at different scales – experience from the Netherlands. Agriculture, Ecosystems and Environment 105, 291-306. DOI: 10.1016/j.agee.2004.02.005

A 12

Rötter, R.P., van den Berg, M.M., Hengsdijk, H., Wolf, J., van Ittersum, M.K., Van Keulen, H, Epifania, O.A., Tran Thuc Son, Nguyen Xuan Lai, Wang Guanghuo, Laborte, A.G. (2005). A dual- scale approach to integrated resource management in East and South-east Asia. Proceedings of the 2nd Biennal Meeting of the International Environmental Modelling and Software Society at Manno, Switzerland, June 2004, 612-618.

A 11

Van Ittersum, M.K., **Rötter, R.P.**, Van Keulen, H., De Ridder, N., Hoanh, C.T., Laborte, A.G., Aggarwal, P.K., Ismail, A.B., Tawang, A. (2004). A systems network (SysNet) approach for interactively evaluating strategic land use options at sub- national scale in South and South-east Asia. Land Use Policy 21, 101-113. DOI: 10.1016/j.landusepol.2004.02.001

A 10

Wolf, J., Van Wijk, M.S., Xu Cheng, **Rötter, R.P.**, Jongbloed, A.W., Yanxia Hu, Changhe Lu, Van Keulen, H., Wolf, J. (2003). Urban and peri-urban agricultural production in Beijing municipality and its impact on water quality. Environment & Urbanization, 15, 141-156. DOI: 10.1630/095624703101286592

A 9

Wolf, J., Beusen, A.H.W., Groenendijk, P., Kroon, T**.**, **Rötter, R.P.**, van Zeijts, H. (2003). The integrated modeling system STONE for calculating nutrient emissions from agriculture in the Netherlands. Environmental Modelling & Software 18, 597-617. DOI: 10.1016/S1364- 8152(03)00036-7

A 8

Pathak, H., Aggarwal, P.K., **Rötter, R.P.**, Kalra, N, Bandyopadhaya, S.K., Prasad, S., Van Keulen, H. (2003). Modelling the quantitative evaluation of soil nutrient supply, nutrient use efficiency, and fertilizer requirements of wheat in South Asia. Nutrient Cycling in Agroecosystems 65, 105-113.
DOI: 10.1023/A:1022177231332

A 7

Rötter, R.P., Laborte, A.G., Van Keulen, H. (2000). Using SysNet Tools to quantify the trade- off between food production and environmental quality. International Rice Research Notes 25.3, 4-9.

A 6

Dobermann, A., Dawe, D., **Rötter, R.P.**, Cassman, K.G. (2000). Reversal of rice yield decline in a longterm continuous cropping experiment. Agronomy Journal 92, 633-643.

A 5

Rötter, R.P. & Van de Geijn, S.C. (1999). Climate change effects on plant growth, crop yield and livestock. Climatic Change 43, 651-681.

A 4

Rötter, R.P. & Van Keulen, H. (1997). Variations in yield response to fertilizer application in the tropics: II. Risks and opportunities for smallholders cultivating maize on Kenya's arable land. Agricultural Systems, 53, 69-95. DOI: 10.1016/S0308-521X(96)00037-6

A 3

Rötter, R.P., Van Keulen, H., Jansen, M.J.W. (1997). Variations in yield response to fertilizer application in the tropics: I. Quantifying risks and opportunities for smallholders based on crop growth simulation. Agricultural Systems 53, 41-68. DOI: 10.1016/S0308-521X(96)00036-4

A 2

Rötter, R.P., Veeneklaas, F.R., van Diepen, C.A. (1995). Impacts of changes in climate and socio- economic factors on land use in the Rhine basin: projections for the decade 2040-49.- Proceedings, International Conference of Climate Change Research, Maastricht 6-9 December 1994, Elsevier, v. Volume 65, Part 2, Amsterdam, pp. 947-950.

A 1

Smaling, E.M.A., Nandwa, S.M., Prestele, H., **Rötter, R.P.**, Muchena, F.N. (1992). Yield response of maize to fertilizers and manure under different agro-ecological conditions in Kenya. Agriculture,
Ecosystems and Environment, 41, 241-252. DOI: 10.1016/0167-8809(92)90113-P

A2 Book section, chapters in research books

2024

A2-48

Feil, J. H., **Rötter, R. P.,** Bakhsh, S. Y., Nelson, C. D., Dalheimer, B., Lam, Q. D., Resende Ferreira, N. C., Odhiambo, J., Bracho-Mujica, G., Abdulai, I., Hoffmann, M., Bruemmer, B., Ayisi, K. K. (2024). Chapter 23 In: Von Maltitz, G. P., *et al.* (Eds.). Potential of Improved Technologies to Enhance Land management Practices of Small-Scale Farmers in Limpopo Province, South Africa. *Sustainability of southern African ecosystems under global change: Science for management and policy interventions*. Cham: Springer International Publishing. 653-685
DOI: https://doi.org/10.1007/978-3-031-10948-5_23

A2-47

Von Maltitz, G. P., Midgley, G. F., Veitch, J., Brümmer, C., **Rötter, R. P.,** Rixen, T., Brandt, P., Veste, M. (2024). Chapter 32 In: Von Maltitz, G. P., *et al*. (Eds.). Synthesis and Outlook on Future Research and Scientific Education in Southern Africa. *Sustainability of southern African ecosystems under global change: Science for management and policy interventions*. Cham: Springer International Publishing. 933-963
DOI: https://doi.org/10.1007/978-3-031-10948-5_32

A2-46

Weier, S. M., Bringhenti, T., Anders, M., Abdulai, I., Foord, S., Grass, I., Lam, Q.D., Linden, V.M.G., **Rötter, R.P.,** Westphal, C., Taylor, P. J. (2024). Chapter 22 In: Von Maltitz, G. P., *et al*. (Eds.). Management Options for Macadamia Orchards with Special Focus on Water Management and Ecosystem Services. *Sustainability of Southern African Ecosystems under Global Change: Science for Management and Policy Interventions*. Cham: Springer International Publishing. 625-652.
DOI: https://doi.org/10.1007/978-3-031-10948-5_22

A2-45

Rötter, R. P., Nkomo, M., zu Drewer, J. M., & Veste, M. (2024). Chapter 20 In: Von Maltitz, G. P*., et al*. (Eds.) Agricultural Land-Use Systems and Management Challenges. *Sustainability of Southern African Ecosystems under Global Change: Science for Management and Policy Interventions*, Cham: Springer International Publishing. 551-586.
DOI: https://doi.org/10.1007/978-3-031-10948-5_20

A2-44

Von Maltitz, G.P., Bieri, M., Midgley, G.F., Veitch. J., Brümmer, C., **Rötter, R.P.,** Veste, M. (2024) Chapter 1 In: Von Maltitz, G. P., *et al.* (Eds.) Coupled Earth System and Human Processes: An Introduction to SPACES and the Book. *Sustainability of Southern African Ecosystems under Global Change: Science for Management and Policy Interventions*, Cham: Springer International Publishing.3-21.
DOI: https://doi.org/10.1007/978-3-031-10948-5_1

2023

A2-43

Tao, F., Taru, P., Rötter, R.P., (2023). Accounting for uncertainties in modeling the impact of climate change on agriculture. Chapter 7 In: BDS Modelling climate change impacts on agricultural systems Vol 1. Burleigh Dodds Science Publishing Limited, Cambridge, UK
DOI:http://dx.doi.org/10.19103/AS.2022.0115.07

2016

A2-42
Rötter, R.P., Fanou L. Sehomi, Jukka G. Höhn, Jarkko K. Niemi, Marrit van den Berg (2016). On the use of agricultural system models for exploring technological innovations across scales in Africa: A critical review. ZEF - Discussion Papers on Development Policy No. 223, University of Bonn, Germany, 85 pp. ISSN: 1436-9931.

2015

A2-41
Rötter, R.P., Höhn, F. (2015). An overview of climate change impact on crop production and its variability in Europe, related uncertainties and research challenges. In: Climate change and food systems: global assessments and implications for food security and trade, Aziz Elbehri (editor). Food and Agriculture Organization of the United Nations (FAO), Rome, 2015, 106-145.

A2-40
Ewert, F., van Bussel, L.G., Zhao, G., Hoffmann, H., Gaiser, T., Specka, X., Nendel, C., Kersebaum, K.C., Sosa, C., Lewan, E., Yeluripati, J., Kuhnert, M., Tao, F., **Rötter, R.P.**, […]. Baigorria, A., Romero, C.C., Moriondo, M. (2015). Uncertainties in Scaling-Up Crop Models for Large-Area Climate Change Impact Assessments. Handbook of Climate Change and Agroecosystems: pp. 261-277. DOI: 10.1142/9781783265640_0010

A2-39
Makowski, D., Asseng, S., Ewert, F., Bassu, S., Durand, J-L., Martre, P., Adam, M., Aggrawal, PK, Angulo, C., Baron, C., Basso, B., Bertuzzi, P., Biernath, C., Boogaard, H., Boote, K.J., Brisson, N., Cammarano, D., Challinor, A.J., Conijn, S.J.G., Corbeels, M., Deryng, D., De Sanctis, G., Doltra, J., Gayler, S., Goldberg., R., Grassini, P., Hatfield, J.L., Hudson, N.I., Morakles, M.D., Hooker, J., Hunt, T.L.A., Ingwersen, J., Izzauralde, C., Jongschaap, R.E.E., Jones, J.W., Kersebaum, K-C., Kim S-H., Mueller, C., Nendel, C. Olesen J.E., Osborne, T.M., Palosuo, T., Pravia, M.E., Priesack, E., Raynal, H., Ripoche, D., Rosenzweig, C., **Rötter, R.P.**, Romero, C.C., Ruane, A., Tao, F., Teixeira, E., Trombi, G., Supit, I., Waha, K., Wang E., Wallach, White, J.W., Williams, J.R., Wolf, J. (2015).Statistical analysis of large simulated yield datasets for studying climate change effects.
Handbook of Climate Change and Agroecosystems: pp. 279-296. DOI: 10.1142/9781783265640_0010

A2-38
McDermid, S., Ruane, A., Hudson, N.I., Rosenzweig, C., Morakles, M.D., Bindi, M., Ewert, F., Hoffmann, H., Gaiser, T, Nendel, C., Kersebaum, K.C., Sosa, C., Lewan, E., Yeluripati, J., Kuhnert, M., **Rötter, R.P.**, […] Tao, F., Zhao, Z., Zubair, L. (2015). The AgMIP Coordinated Climate-Crop Modeling Project (C3MP): Methods and Protocols. Handbook of Climate Change and Agroecosystems: pp. 261- 277. DOI: 10.1142/9781783265640_0008

1994 - 2014

A2-37
Webber, H., Kahiluoto, H., **Rötter, R.P.**, Ewert, F. (2014). Enhancing climate resilience of cropping systems. Chapter 11. In J. Fuhrer & P. Gregory (eds.) Climate Change Impact and Adaptation in Agricultural Systems. Wallingford: CAB International, 167-185.

A2-36
Kahiluoto, H., **Rötter, R.P.**, Webber, H., Ewert, F. (2014). The Role of Modelling in Adapting and Building the Climate Resilience of Cropping Systems. Chapter 13. In J. Fuhrer & P. Gregory (eds.) Climate Change Impact and Adaptation in Agricultural Systems. Wallingford: CAB International, 204-215.

A2-35
Sumelius, J., Bäckman, S., Kahiluoto, H., **Rötter, R.P.**, Nyairo, N., Valkila, J., Parviainen, T., Islam, K.M.Z., Hossain, M., Tenaw, S., Inutia, R. (2012). Options to promote sustainable agricultural systems and food security in a changing climate. Pages 95-105, In: Lapka, M and Cudlinova, E., Towards an Environmental Society? Concepts, policies, outcomes. Charles University in Prague, Karolinum Press, Pargue, Czech Republic.

A2-34
De Lattre-Gasquet, M., Kahiluoto, H., **Rötter, R.P.** (2009). Looking into the future of Agriculture and AKST (Agricultural Knowledge, Science and Technology). In B.D. McIntyre, H.R. Herren, J. Wakhungu & R.T. Watson (eds.) Agriculture at a Crossroads. Volume IV. Chapter 5. Washington DC, USA: Island Press, 151-207.

A2-33
De Jager, A., Ritsema, C., Mosugu, M., Meijerink, G., Van den Brink, P., van den Bosch, H., Van den Elsen, E., **Rötter, R.P.**, Van Wijk, S., Versandvoort-Van Dijck, S., Van Diepen, C.A., Kamphuis, B. (2007). Project Assessments. Chapter 7. In R.P. Rötter, H. Van Keulen, M. Kuiper, J. Verhagen & H.H. Van Laar (eds.) Science for Agriculture and Rural Development in Low-income Countries. Dordrecht: Springer, 115-216.

A2-32
Rötter, R.P., Kuiper, M., Verhagen, J., Meijerink, G., van Keulen, H. (2007). Lessons learned. Chapter 6. In R.P. Rötter, H. Van Keulen, M. Kuiper, J. Verhagen & H.H. Van Laar (eds.) Science for Agriculture and Rural Development in Low-income Countries. Dordrecht: Springer, 97- 114.

A2-31
Rötter, R.P. & van Keulen, H. (2007). Food Security. Chapter 3. In R.P. Rötter, H. Van Keulen, M. Kuiper, J. Verhagen & H.H. Van Laar (eds.) Science for Agriculture and Rural Development in Low- income Countries. Dordrecht: Springer, 27-56.

A2-30
Rötter, R.P., van Keulen, H., Kuiper, M., Verhagen, J. (2007). Agriculture in a dynamic world. In R.P. Rötter, H.van Keulen, M. Kuiper, J. Verhagen & H.H. van Laar (eds.) Science for Agriculture and Rural Development in Low-income Countries. Dordrecht, The Netherlands: Springer, 1-6.

A2-29

Van den Berg, M.M., Wang, G., **Rötter, R.P.** (2007). Agricultural Technology and Nitrogen Pollution in Southeast China. In M. Spoor, N. Heerink & Futian Qu (eds.) Dragons with Clay Feet? Transition, sustainable land use, and rural environment in China and Vietnam. Plymouth, UK: Lexington Books, 293-308.

A2-28

Aggarwal, P.K., Van Keulen, H., Rabbinge, R., **Rötter, R.P.** (2001). Synthesis, conclusions and future studies. In P.K. Aggarwal, R.P. Rötter, N. Kalra, H. Van Keulen, C.T. Hoanh & H.H. Van Laar (eds.) Land use analysis and planning for sustainable food security: with an illustration for the state of Haryana, India. Los Baños: International Rice Research Institute, 153-167.

A2-27

Aggarwal, P.K., Kumar, S., Vashist, A.K., Hoanh, C.T., Van Keulen, H., Kalra, N., Pathak, H.,

Rötter, R.P. (2001). Balancing food demand and supply. In P.K. Aggarwal, R.P. Rötter, N. Kalra,

H. Van Keulen, C.T. Hoanh & H.H. Van Laar (eds.) Land use analysis and planning for sustainable food security: with an illustration for the state of Haryana, India. Los Baños: Int ernational Rice Research Institute, 137-152.

A2-26

Pathak, H., Joshi, H.C., Choudary, R.C., Bandyopadhyay, S.K., Kalra, N., Aggarwal P.K., **Rötter, R.P**. (2001). Environmental impact assessment. In P.K. Aggarwal, R.P. Rötter, N. Kalra, H. Van Keulen, C.T. Hoanh & H.H. Van Laar (eds.) Land use analysis and planning for sustainable food security: with an illustration for the state of Haryana, India. Los Baños: International Rice Research Institute, 91-104.

A2-25

Bandyopadhyay, S.K., Pathak, H., Kalra, N., Aggarwal P.K., Kaur, R., Joshi, H.C., Choudary,

R.C., **Rötter, R.P.** (2001). Yield estimation and agro-technical description of production systems. In P.K. Aggarwal, R.P Rötter, N. Kalra, H. Van Keulen, C.T. Hoanh & H.H. Van Laar (eds.) Land use analysis and planning for sustainable food security: with an illustration for the state of Haryana, India. Los Baños: International Rice Research Institute, 61-90.

A2-24

Kalra, N., Aggarwal, P.K., Pathak, H., Kumar, S., Bandyopadhyay, S.K**.,** Dadhwal, V.K., Seghal, V.K., Harith, R., Krishna, M., **Rötter, R.P.** (2001). Evaluation of regional resources and constraints. In P.K. Aggarwal, R.P Rötter, N. Kalra, H. Van Keulen, C.T. Hoanh & H.H. Van Laar (eds.) Land use analysis and planning for sustainable food security: with an illustration for the state of Haryana, India. Los Baños: International Rice Research Institute, 33-60.

A2-23

Van Diepen, C.A., **Rötter, R.P.**, Jansen, D.M. (2000). Yield estimation techniques for land use planning studies. In R.P. Rötter et al. (eds.) Systems research for optimizing future land use in South and Southeast Asia. SysNet Research Paper Series No. 2. Los Baños: International Rice Research Institute, 133-152.

A2-22

Rötter, R.P. & Laborte, A.G. (2000). Stakeholder meetings in the Philippines, Malaysia and Vietnam.

In R.P. Rötter, H. Van Keulen, H.H. Van Laar (eds.) Synthesis of methodology development and case studies. Sysnet Research Paper Series No. 3. Makati City: International Rice Research Institute, 69- 76.

A2-21

Rötter, R.P., Laborte, A.G., Lucas, P.M., Francisco, S.R., Van Oort, P., Cabrera, J.M.C.A., Van Keulen, H., Lansigan, F.P. (2000): Ilocos Norte Province case study: Effects of future changes in nutrient management practices on agricultural development goals. In R.P. Rötter, H. Van Keulen, H.H. Van Laar (eds.) Synthesis of methodology development and case studies. Sysnet Research Paper Series No. 3. Makati City: International Rice Research Institute, 31-45.

A2-20

Rötter, R.P., Hoanh, C.T., Aggarwal, P.K., Van Keulen, H. (2000): Challenges, project strategy and major accomplishments. In R.P. Rötter, H. Van Keulen, H.H. Van Laar (eds.) Synthesis of methodology development and case studies. Sysnet Research Paper Series No. 3. Makati City: International Rice Research Institute, 3-10.

A2-19

Rötter, R.P., Aggarwal, P.K., Ismail, A.B., Lai, N.X., Lansigan, F.P., Hoanh, C.T., Van Keulen, H. (2000). SysNet methodology development for agricultural land use planning: 1996-99. In R.P. Rötter et al. (eds.) Systems research for optimizing future land use in South and Southeast Asia. SysNet Research Paper Series No. 2. Los Baños: International Rice Research Institute, 21-38.

A2-18

Laborte, A.G., **Rötter**, **R.P.**, Nuñez, B., Dreiser, C. (2000). Development of a tool for interactive land use scenario analysis: IMGLP user interface. In R.P. Rötter, H. Van Keulen & H.H. Van Laar (eds.) Synthesis of methodology development and case studies. Sysnet Research Paper Series No. 3. Makati City: International Rice Research Institute, 57-68.

A2-17

Lansigan, F.P., Pascual, C.M., Francisco, S.R., Laborte, A.G., Lucas, M.P., Coladilla, J.O., Dimasuay, L.B., San Pedro, J.C., Utrera, R.T., Marcos, T.F., Hoanh, C.T., **Rötter**, **R.P.**, Cruz, R.T. Obien, S.R. (2000). Exploring agricultural land use options for Ilocos Norte, Philippines. In R.P. Rötter et al. (eds.) Systems research for optimizing future land use in South and Southeast Asia. SysNet Research Paper Series No. 2. Los Baños: International Rice Research Institute, 91 -102.

A2-16

Hoanh, C.T., **Rötter, R.P.**, Aggarwal, P.K., Bakar, I.A., Tawang, A., Lansigan, F.P., Francisco, S., Lai, N.X., Laborte, A.G. (2000). LUPAS: An operational system for land use scenario analysis. In R.P. Rötter et al. (eds.) Systems research for optimizing future land use in South and Southeast Asia. SysNet Research Paper Series No. 2. Los Baños: International Rice Research Institute, 39-53.

A2-15

Aggarwal, P.K., Kalra, N., Kumar, S., Pathak, H., Bandoyopadhay, S.K**.,** Vashist, A.K., **Rötter, R.P.**, Hoanh, C.T. (2000). Haryana State case study: trade-off between cereal production and environmental impact. In R.P. Rötter, H. Van Keulen & H.H. Van Laar (eds.) Synthesis of methodology development and case studies. Sysnet Research Paper Series No. 3. Makati City: International Rice Research Institute, 11-18.

A2-14

Aggarwal, P.K., Kalra, N., Kumar, S., Bandyopadhyay, S.K., Pathak, H., Vashist, A.K., Hoanh, C.T., **Rötter, R.P.** (2000). Exploring land use options for a sustainable increase in food grain production in Haryana: Methodological framework. In R.P. Rötter et al. (eds.) Systems research for optimizing future land use in South and Southeast Asia. SysNet Research Paper Series No. 2. Los Baños: International Rice Research Institute, 5768.

A2-13

Rötter, R.P., Hoanh, C.T. (1999). Exploring land use options under multiple goals in support of natural resource management at sub-national level. In N.N. Kinh, P.S. Teng, C.T. Hoanh C, J.C Castella (eds.) Towards an Ecoregional Approach for Natural Resource Management in the Red River Basin of Vietnam. Hanoi: Ministry of Agriculture and Rural Development and Los Baños: International Rice Research Institute, 29-57.

A2-12

Padilla, J.L., Laureles, E., Ito, O., Horie, T., **Rötter, R.P.**, Cabrera, J.M.C.A. (1999). Productivity and soil fertility in tropical rice under continuous and intensive cropping systems. Proceedings of the International Conference on Food Security at Kyoto, Japan, October 1998, 71-77.

A2-11

Rötter, R.P., Aggarwal, P.K., Tan, P.S., Hoanh, C.T., Cabrera, J.M.C.A., Nuñez, B. (1998). Use of crop simulation models and alternative yield estimation techniques for optimizing agricultural land use and resource management. In R.P. Rötter, C.T. Hoanh, N.V. Luat, M.K. Van Ittersum & H.H. Van Laar (eds.) Exchange of methodologies in land use planning. Sysnet Research Paper Series No. 1. Los Baños: International Rice Research Institute, 15-29.

A2-10

Rötter, R.P. (1998). SysNet project: review of scientific work and prospects. In R.P. Rötter,
C.T. Hoanh & P.S. Teng (eds.) A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. Manila: International Rice Research Institute, 70-81.

A2-9

Lansigan, F.P., Orno, J.L., Pascual, C.M., Navarette, N.R., Francisco, S.R., Laborte, A.G., Hoanh, C.T., **Rötter, R.P.** (1998). Systems methodology development for exploratory agricultural land use planning for
Ilocos Norte Province, Philippines. In R.P. Rötter, C.T. Hoanh, N.V. Luat, M.K. Van Ittersum, H.H. & Van Laar (eds.) Exchange of methodologies in land use planning. Sysnet Research Paper Series No. 1. Los Baños: International Rice Research Institute, 73-80.

A2-8

Laborte, A., Francisco, S., Hoanh, C.T., **Rötter, R.P.**, Cabrera, J.M.C.A., Lansigan, F., P.C. (1998):
Elements and preliminary results of LP modeling: the Ilocos Norte case study. In R.P. Rötter,
C.T. Hoanh & P.S. Teng (eds.) A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. Manila: International Rice Research Institute, 58-69.

A2-7

Hoanh, C.T., **Rötter, R.P.**, Jansen, D.M., Aggarwal, P.K., Lansigan, F.P., Lai, N.X., Bakar, I.A. & Tawang, A. (1998). Generalizing SysNet methodologies for land use planning at the sub-national level. In R.P. Rötter, C.T. Hoanh, N.V. Luat, M.K. Van Ittersum, H.H. & Van Laar (eds.) Exchange of methodologies in land use planning. Sysnet Research Paper Series No. 1. Los Baños: International Rice Research Institute, 41-56.

A2-6

Hoanh, C.T. & **Rötter, R.P.** (1998). Towards decision support systems for land use planning. In: Eds R.P. Rötter, C.T. Hoanh and P.S. Teng, A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. In R.P. Rötter, C.T. Hoanh & P.S. Teng (eds.) A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. Manila: International Rice Research Institute, 6-13.

A2-5

Francisco, S.R., Navarette .N.R. Jr, Dimasuay. L.B., Lansigan, F.P., Pascual, C.M., Lucas M.P., Orno, J.L., **Rötter, R.P.**, Hoanh, C.T., Laborte, A.G., Marcos, T.F., Acosta, C.G., Agustin, E.O., Pascua, M.E., Pascua, Jr S.R., Utrera, R.T., Cruz, R.T., Obien, S.R. (1998). A systems approach to agricultural land use planning at the provincial and municipal levels of Ilocos Norte Province, Philippines. In R.P. Rötter, C.T. Hoanh, N.V. Luat, M.K. Van Ittersum, & H.H. Van Laar (eds.) Exchange of methodologies in land use planning. Sysnet Research Paper Series No. 1. Los Baños: International Rice Research Institute, 103-109.

A2-4

Cabrera, J.M.C.A., **Rötter, R.P.**, van Laar, H.H. (1998). Preliminary results of crop model development and evaluation for rice. In R.P. Rötter, C.T. Hoanh & P.S. Teng (eds.) A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. Manila: International Rice Research Institute, 40-57.

A2-3

Reilly, J., Sombroek, W., van de Geijn, S.C., Rosenzweig, C., **Rötter, R.P.** et al. (1996). Agriculture in a changing climate: Impacts and adaptation. Chapter 13. In R.T. Watson, M.C. Zinyowera & R.H. Moss (eds). Climate Change 1995, Impacts, Adaptations and Mitigation of Climate Change: Scientific-Technical Analyses. Contribution of Working Group II to second impact assessment report of the Intergovernmental Panel on Climate Change. Washington D.C.: Cambridge University Press, 429-455.

A2-2

Rötter, R.P. (1995). Mögliche Landnutzungsänderungen im Rheingebiet mit und ohne Klimaänderung. In Wissenschaftliche Mitteilungen der Bundesforschungsanstalt für Landwirtschaft BraunschweigVölkenrode, Sonderheft 150, Braunschweig. (in German).

A2-1

Rötter, R.P. & Dreiser, C. (1994). Extrapolation of maize fertilizer trial results by using crop- growth simulation: Results for Murang'a district, Kenya. In L.O Fresco, L. Stroosnijder, J. Bouma. &H. Van Keulen (eds.) The Future of the Land, Mobilising and Integrating knowledge for land use options. New York: John Wiley & Sons, 249-260.

A3 Conference proceedings

A3-23
Rötter, R.P., Tao Fulu, Höhn, J.G., Palosuo, T., (2014). Designing new barley cultivars using crop simulation modelling. Proceedings, International Conference on Breeding Plants to cope with future climate change, 16-18 June at University of Leeds, UK. Association of Applied Biology.

A3-22
Palosuo, T.& **Rötter, R.P.** (2014). Agro-ecosystem simulation models as tools for exploring the future. In: Maataloustieteen Päivät 2014, 8.-9.1.2014 Viikki, Helsinki : esitelmä- ja posteritiivistelmät
/ Toim. Risto Kuisma, Nina Schulman, Hanna-Riitta Kymäläinen ja Laura Alakukku. Suomen maataloustieteellisen seuran tiedote 31: p. 52.

A3-21
Palosuo, T. & **Rötter, R.P.** (2013). Temperature routines in WOFOST. In P.D. Aldermann, E. Quilligan, S. Asseng, F. Wert & M.P. Reynonlds (eds.) Proceedings of the Workshop on Modeling Wheat Response to High Temperature. CIMMYT, El Batan, Mexico, 19-21 June 2013, 127-130.

A3-20
Fronzek, S., Pirttioja, N.K., Luoto, M., **Rötter, R.P.**, Carter, T.R. (2013). Using impact response surfaces to evaluate sources of uncertainty in modelling climate change impacts. *Impacts World 2013. International Conference on Climate Change Effects,* 27-30 May 2013, Potsdam, Germany.

A3-19
Carter, T.R., Fronzek, S., Pirttioja, N.K., **Rötter, R.P. (**2012). Probabilistic assessment of climate change impacts on crop yields. Poster presented at the international conference: *Planet under Pressure: New Knowledge Towards Solutions*, 26-29 March 2012, London.
http://www.planetunderpressure2012.net/index.asp

A3-18
Asseng, S., and 49 others (Palosuo, T. and **Rötter, R.P**.) (2012). The AgMIP Wheat pilot study: A sensitivity analysis with 27 crop models. In: *Proceedings of 6th International Crop Science Congress*, Bento Gonçalves, Brazil, 6-10 August 2012, 1p. http://www.6icsc.com.br/

A3-17
Rötter, R.P., Lehtonen, H., Kahiluoto, H., Helin, J., Palosuo, T., Salo, T., Pavlova, Y., Wolf, J., Carter, T.R., Ewert, F. (2010). Assessing adaptive management options to cope with climate change at the farm level. Proceedings of the FAO-IRRI workshop on Advanced technologies of rice production for coping with climate change: No-regret options for adaptation and mitigation at Los Banos, Philippines, 77-81.

A3-16

Rötter, R.P., Salo, T., Palosuo, T., Virtanen, N.K., Grönroos, J., Fronzek, S., Wolf, J., Carter, T.R., Lehtonen, H. (2010). Development and evaluation of a crop modelling system for regional yield evaluation. Proceedings of the AGRO2010, the XIth ESA congress, at Montpellier, France, August/September 2010, 132-133.

A3-15

Rötter, R.P., Lehtonen, H., Palosuo, T., Salo, T., Helin, J., Kahiluoto, H., Aakkula, J., Granlund, K., Rankinen, K., Carter, T. (2009). A modelling framework for assessing adaptive management options of Finnish agricultural systems to climate change. In J.Eitzinger & G. Kubu (eds.) Impact of Climate Change and Adaptation in Agriculture. Proceedings of the International Symposium at Vienna, Austria June 2009, 138-140.

A3-14

Kahiluoto, H., Rimhanen, K. & **Rötter, R.P. (**2009). Implications of 4+ degrees global warming on potential of carbon trading for mitigation and food security. Abstract book of the International Climate Change Conference, Oxford, UK, September 2009, 57-59.

A3-13

Rötter, R.P., Fornzek, S., Salo, T., Peltonen-Sainio, P., Carter, T.R. (2008). Simulation of rapeseed yields under climate change in Finland Proceedings of the WMO - COST 734 Symposium on climate change and variability held on 3-6 June at Oscarsborg, Norway, Bioforsk Fokus, 3(8), p. 66.

A3-12

Rötter, R.P., Kahiluoto, H., Hengsdijk, H.A., Van Keulen, H. (2008). Exploring scenarios of adapting to climate change: Analytical framework and a Sub-Saharan case. Proceedings of the Tropentag 2008 at Hohenheim, Germany, October 2008, 776-780.

A3-11

Van Trinh, M., Leopold, U., van Keulen, H., Nguyen Dinh Dong, **Rötter, R. P.** (2005). Mapping uncertain nitrogen concentration in shallow ground water under intensive farming. Proceedings of the 26$_{th}$ Asian Conference on Remote Sensing at Hanoi, Vietnam, November 2005, CD- ROM.

A3-10

Laborte, A.G., **Rötter, R.P.** & Hoanh, C.T., (2002). The land use planning and analysis system of the systems research network in Asia. In P.A. Lawrence & Robinson (eds.) Proceedings of the 2$_{nd}$ International Conference on Multiple Objective Decision Support Systems for Land, Water and Environmental Management (MODSS'99), Aug 1-6 1999 Brisbane, Australia. Queensland Department of Natural Resources and Mines. Australia, Report QNRM02143.

A3-9

Van Keulen, H., Van Ittersum, M.K., **Rötter, R.P.**, De Ridder, N., Hoanh, C.T. (2002). New approaches to support development of sustainable land use systems. Proceedings of the International Symposium Sustaining

Food Security and Managing Natural Resources in Southeast Asia – Challenges for the 21st Century. Chiangmai, Thailand, January 8-11, 2002.

A3-8

Van Ittersum, M.K., De Ridder, N., **Rötter, R.P.**, Laborte, A.G. Van Keulen, H. (2002). Tackling the 'where, what and how' question. Advances in Agronomy, Canberra, Australia, Aug, 8- 10, 2001.

A3-7

Rötter, R.P., Hoanh, C.T., Aggarwal, P.K., Ismail, A.B., Lai, N.X., Lansigan, F.P., Laborte, A.G., van Ittersum, M.K., de Ridder, N., van Diepen, C.A., van Keulen, H. (2001). Matching systems methodology development with stakeholders' needs for agricultural land-use planning: The SysNet experience in Asia, 199699. Proceedings of the SAAD-3 at Lima, Peru, November 1999, CD ROM.

A3-6

Rötter ,R.P., Laborte AG, Van Oort, P, Hoanh CT, Cabrera JMCA, M Lucas, S Francisco, Van Keulen, H. (2001). Resource-use analysis at regional scale: Explorations for rice systems in SE Asia. Proceedings of the SAAD-3 at Lima, Peru, November 1999, CD ROM.

A3-5

Hoanh, C.T., **Rötter R.P.**, Laborte, A.G., Aggarwal, P.K., Bakar, I.A., Tawang, A., Lansigan, F.P., Francisco, S., Lai, N.X. (2001). Scenario analysis in land use planning: Examples from four case studies of the SysNet project. Proceedings of the SAAD-3 at Lima, Peru, November 1999, CD ROM.

A3-4

Bouman, B.A.M., **Rötter, R.P.**, Schipper, R.A., Laborte, A.G. (2000). Regional land use analysis to support agricultural and environmental policy formulation. In P. Tuong et al. (eds.) Characterizing and understanding rainfed rice environments. Proceedings of the International Workshop in Bali, 6-10 Dec. 1999. Los Banos: International Rice Research Institute, 471-488.

A3-3

Van de Geijn, S.C., Schapendonk, H.C.M., **Rötter, R.P.** (1998). Effects of climate change on plant growth, crop yield and grassland productivity. In D. Peter, G. Maracchi. & A. Ghazi (eds.) Course on climate change impact on agriculture and forestry. Proceedings of the European School of Climatology and Natural Hazards at Volterra, Italy, March 1996, 137-158.

A3-2

Rötter, R.P., Van Diepen, C.A. & Van der Wal, T. (1998). Relations between climate variability and crop yield variability in the Rhine area. In Nicolas R. Dalezios (ed.) COST 77, 79, 71.1. International Symposium on Applied Agrometeorology and Agroclimatology. Proceedings, Volos, Greece, 24-26 April 1996, 45-52.

A3-1

Rötter, R.P. & Hoanh, C.T. (1998). The systems research network for ecoregional land use planning in tropical Asia. Progress and outlook. Proceedings of the Methodological Research at the Ecoregional Level - Review Workshop at ISNAR, The Hague, April 1998, 21-37.

B) Non-refereed scientific articles

B1 Non-refereed journal articles

B1-5
Joseph, J.E., Rao, K.P.C., Ngwira, A.R., Swai, E., **Rötter, R.P.,** Whitbread, A.M., Analysis of rainfall variability and trends for better climate risk management in the major agro-ecological zones in Tanzania.Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), CCAFS Working Paper no. 363. https://hdl.handle.net/10568/114910

B1-4
Fronzek, S., Ruane, A., **Rötter, R.P.**, Webber, H. (2021). A daily time-step observed and scenario climate dataset on a European grid for crop modelling applications (version3). Leibnitz Centre for Agricultural Landscape Research (ZALF). DOI: https://doi.org/10.4228/zalf.vjcp-vep3

B1-3
Fronzek, S., Webber, H. A., Rötter, R.P., Ruane, A.C., Ewert, F. (2019). A daily time-step observed and scenario climate dataset on a European grid for crop modelling applications - Version 2. Leibnitz Centre for Agricultural Landscape Research (ZALF). DOI: https://doi.org/10.4228/zalf.dk.94

B1-2
Kahiluoto, H., **Rötter, R.P.** (2009). Implications of and responses to climate change. SARD- Climate, Report 11. Discussion Papers no 39. University of Helsinki: Department of Economics and Management, 29 pages.

B1-1
Sumelius, J., Bäckmann, S., Kahiluoto, H., **Rötter, R.P.** (2009). Sustainable rural development with Emphasis on agriculture and food security within the climate change setting. SARD-CLIMATE Final Report. Discussion Papers no 40. University of Helsinki: Department of Economics and Management, 50 pages.

B2 Book sections

B2-4
Rötter, R.P., Koch, M. (2019). Der Klimawandel als Herausforderung für Ugandas wichtigsten Exportwirtschaftszweig In: Jahreis, M., Marquart, S., Möllers, N. (Eds.) *Kosmos Kaffee*. Verlag Deutsches Museum, München, Germany.

B2-3
Rötter, R.P. & Teng, P.S. (1998). A systems research network for ecoregional land use planning in tropical Asia. In R.P. Rötter, C.T. Hoanh & P.S. Teng (eds.) A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. Manila: International Rice Research Institute, 1-5.

B2-2

Rötter, R.P., Cabrera, J.M.C.A. & Hoanh, C.T. (1998). Development and evaluation of crop models for yield estimation at different scales. In R.P. Rötter, C.T. Hoanh & P.S. Teng (eds.) A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. Manila: International Rice Research Institute, 14-29.

B2-1
Rötter, R.P. (1993). Weiterentwicklung der Agro-ökologischen Zonierung mit einem Beispiel aus Kenia. In B. Hornetz. & W. Zimmer (eds.) Festschrift zum 60. Geburtstag von Professor Ralph Jätzold. Sonderheft 130, Geographische Schriftenreihe der Universität Trier. Trier.

B3. Non-refereed conference proceedings

B3-36
Wallach, D., Mearns, L., Asseng, S., **Rötter, R.P.** (2014). Using ensembles of models: lessons for crop modeling from climate models. Proceedings, 13$_{th}$ ESA Conference held on 29-31 August 2014 at Debrecen, Hungary.
B3-35
Rötter, R.P., Palosuo, T., Semenov, M., Ruiz-Ramos, M., Tao, F., Fronzek, S., Pirttioja, N., Bindi, M., Carter, T., Hoffmann, H., Höhn, J., Kersebaum, C., Mínguez-Tudela, I., Ferrise, R., Trnka, M. (2014). Designing new cereal cultivars as an adaptation measure using crop model ensembles. Proceedings of the Crop International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 101.

B3-34
Tao, F., **Rötter, R.P.**, Palosuo, T., Höhn, J., Peltonen-Sainio, P., Rajala, A., Salo, T. (2014). Assessing climate impacts on wheat yield and water use in Finland using a super-ensemble-based probabilistic approach. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 53.

B3-33
Zhao, G., Hoffmann, H., Bussel, L., Enders, A., Specka, X., Sosa, C., Yeluripati, J., Tao, F., Constantin, J., Teixeira, E., Doro, L., Nendel, C.,
Kiese, R., Raynal, H., Eckersten, H., Haas, E., Kuhnert, M., Lewan, E., Bach, M., Kersebaum, K., **Rötter, R.P.**, Wallach, D., Gaiser, T., Ewert, F. (2014). Responses of crop's water use efficiency to weather data aggregation: a crop model ensemble study. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 48.

B3-32
Hoffmann, H., Zhao, G., van Bussel, L., Enders, A., Specka, X., Sosa, C., Yeluripati, J., Tao, F., Constantin, J., Teixeira, E., Grosz, B., Doro, L., Nendel, C., Kiese, R., Raynal, H., Eckersten, H., Haas, E., Kuhnert, M., Lewan, E., Bach, M., Kersebaum, K.-C., **Rötter, R.P.**, Wallach, D., Gaiser, T., Ewert, F. (2014). Effects of climate input data aggregation on modelling regional crop yields. Proceedings of the Crop International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 46.

B3-31

Wang, E., Martre, P., Asseng, S., Ewert, F., **Rötter, R.P.**, Alderman, P., Zhao, Z., Cammarano, D., Kimball, B., Ottman, M., Wall, G., White, J., Reynolds, M., Prasad, P., Aggarwal, P., Basso, B., Biernath,
C., Challinor, A., De Sanctis, G., Doltra, J., Fereres, E., Gayler, S., Goldberg, R., Hoogenboom, G., Hunt, L., Ingwersen, J., Izaurralde, R., Jabloun, M., Kersebaum, K., Koehler, A., Lobell, D., Müller, C., Kumar, N., Nendel, C., O'Leary, G., Palosuo, T., Priesack, E., Eyshi Rezaei, E., Ruane, A., Semenov, M.A., Shcherbak, I., Steduto, P., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Thorburn, P., Vignjevic, M., Waha, K., Wallach, D., Wolf, J., Zhu, Y. (2014).
Causes for uncertainty in simulating wheat response to temperature. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 32.

B3-30

Kersebaum, K., Boote, K., Jorgenson, J., Kollas, C., Nendel, C., Wegehenkel, M., Bindi, M., Olesen, J., Frühauf, C., Gaiser, T., Ruget, F., **Rötter, R.P.**, Trnka, M. (2014). A scheme to evaluate suitability of experimental data for model testing and improvement. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 1012 February 2014, 31.

B3-29

Kollas, C., Kersebaum, K., Bindi, M., Wu, L., Sharif, B., Öztürk, I., Trnka, M., Hlavinka, P., Nendel, C., Palosuo, T., Müller, C., Waha, K., Herrera, C., Olesen, J., Eitzinger, J., Roggero, P., Conradt, T., Martre, P.,
Ferrise, R., Moriondo, M., Ramos, M., Ventrella, D., **Rötter, R.P.**, Wegehenkel, M., Eckersten, H., Torres, I., Hernandez, C., Launay, M., Witt, A., Hoffmann, H. (2014). Improving yield predictions by crop rotation modelling? a multi-model comparison.
Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 24.

B3-28

Palosuo, T., **Rötter, R.P.**, Tao, F., Salo, T., Peltonen-Sainio, P. (2014). Simulating historical adaptations of barley production across Finland. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10- 12 February 2014, 23.

B3-27

Angulo, C., Thomas, G., **Rötter, R.P.**, Børgesen, C., Hlavinka, P., Trnka, M., Ewert, F. (2014). Investigating the variability uncertainty of soil input data resolution - A multi-model regional study case in Germany. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10 -12 February 2014, 21.

B3-26

Pirttioja, N., Fronzek, S., Bindi, M., Carter, T., Hoffmann, H., Palosuo, T., Ruiz-Ramos, M., Trnka,
M., Acutis, M., Asseng, S., Baranowski, P., Basso, B., Bodin, P., Buis, S., Cammarano, D., Deligios, P., Destain, M-F., Doro, L., Dumont, B., Ewert, F., Ferrise, R., François, L., Gaiser, T., Hlavinka, P.,
Kersebaum, C., Kollas, C., Krzyszczak, J., Lorite, I., Minet, J., Minguez, I., Montesino, M., Moriondo, M.,

Nendel, C., Öztürk, I., Perego, A., Ruget, F., Rodríguez, A., Sanna, M., Semenov, M., Slawinski, C., Stratonovitch, P., Supit, I., Tao, F., Wu, L., **Rötter, R.P.** (2014). Examining wheat yield sensitivity to temperature and precipitation changes for a large ensemble of crop models using impact response surfaces. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 18.

B3-25

Martre, P., Wallach, D., Asseng, S., Ewert, F., Nendel, C., Jones, J., Boote, K., **Rötter, R.P.**, Ruane, A., Thorburn, P., Rosenzweig, C., Cammarano, D., Hatfield, J., Aggarwal, P., Angulo, C., Basso, B., Bertuzzi, P., Biernath, C., Brisson, N., Challinor, A., Doltra, J., Gayler, S., Goldberg, R., Grant, R., Heng, L., Hooker, J., Hunt, L., Ingwersen, J., Izaurralde, R., Kersebaum, K.C., Müller, C., Kumar, S., O'Leary, G., Olesen, J., Osborne, T., Palosuo, T., Priesack, E., Ripoche, D., Semenov, M., Shcherbak, I., Steduto, P., Stöckle, C., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Travasso, M., Waha, K., T.,White, J., Wolf, J. (2014). Error and uncertainty of wheat multimodel ensemble projections. Proceedings of the CropM International Symposium and Workshop: Modelling climate change impacts on crop production for food security at Oslo, Norway, 10-12 February 2014, 16.

B3-24

Pirttioja, N.K., Fronzek, S., Carter, T.R., **Rötter, R.P**. 2013. Simulating adaptive management using impact models in a risk framework. Poster presented at: *Adaptation Futures: 2012International Conference on Climate Adaptation*, 29-31 May 2012, Tucson, AZ, USA and at the *FICCA midway seminar*, Hilton Helsinki Strand, 16 April 2013, Helsinki, Finland.

B3-23

Lehtonen, H., Palosuo, T., **Rötter, R.P.**, Pavlova, Y., Liu, X. 2013. AlaCarte: Assessment of impacts and adaptation for agricultural systems. Poster presented at the *FICCA midway seminar*, Hilton Helsinki Strand, 16 April 2013, Helsinki, Finland.

B3-22

Kahiluoto, H., Himanen, S.J., Hakala, K., Kuosmanen, N., Miettinen, A., **Rötter, R.P.**, Salo, T. 2012. Diversification as a means to enhance resilience of agrifood systems. Adaptation Futures. International Conference on Climate Adaptation. Arizona University. Abstract book.

B3-21

Kahiluoto, H., Himanen, S.J., Hakala, K., Miettinen, A., **Rötter, R.P.**, Salo, T. 2012. Diversification as a means to enhance resilience of agrifood systems. In: NORDCLAD-Net/NONAM, *ibid*. p. 43.

B3-20

Martre, P., Wallach, D., Asseng, S., Ewert, F., Cammarano, D., Aggarwal, P.K., Angulo, C., Basso, B., Bertuzzi, P., Biernath, C., Boote, K.J., Brisson, N., Doltra, J., Gayler, S., Goldberg, R., Grant, R., Hatfield, J, Heng Lee, Hooker, J., Hunt, L.A., Ingwersen, J., Izaurralde, R.C., Jones, J.W., Kersebaum, K., Müller, C., Kumar, S.N., Nendel, C., O'Leary, G., Olesen, J. E., Osborne, T.M., Palosuo, T., Priesack, E., Ruane, A., Ripoche, D., Rosenzweig, C., **Rötter, R.P.**, Semenov, M., Shcherbak, I., Steduto, P., Stöckle, C., Stratonovich, P., Streck, T., Supit, I.W.A., Thorburn, P., Travasso, M., Tao, F., Waha, K., White, J. & Wolf, J. (2012). Predicting wheat growth and nitrogen use with an ensemble of crop simulation models. Visions for a

sustainable planet, Proceedings of the ASA, CSSA, and SSSA international annual meetings at Cincinnati, Ohio, USA, October 2012, 1.

B3-19

Asseng, S., Ewert, F., Rosenzweig, C., Jones, J.W., Hatfield, J.L., Ruane, A., Boote, K.J., Thorburn, P., **Rötter, R.P.**, Cammarano, D., Brisson, N., Basso, B., Martre, P., Ripoche, D., Bertuzzi, P., Steduto, P., Heng, L., Semenov, M.A., Stratonovitch, P., Stockle, C., O'Leary, G., Aggarwal, P.K., Naresh Kumar, S., Izaurralde, C., White, J.W., Hunt, L.A., Grant, R., Kersebaum, K.C., Palosuo, T., Hooker, J., Osborne, T., Wolf, J., Supit, I., Olesen, J.E., Doltra, J., Nendel, C., Gayler, S., Ingwersen, J., Priesack, E., Streck, T., Tao, F., Müller, C., Waha, K., Goldberg, R., Angulo, C., Shcherbak, I., Biernath, C., Wallach, D., Travasso, M., Challinor, A. (2012). A comparison of 27 wheat crop models for climate change impact: the AgMIP Wheat pilot study. 12 th Congress of the European Society for Agronomy at Helsinki, Finland, August 2012: abstracts (eds. F. Stoddard & P. Mäkelä), Maataloustieteiden laitoksen julkaisuja 14, 34.

B3-18

Salo, T., Palosuo, T, Kersebaum, K.C., Angulo, C., Moriondo, M., Bindi, M., Patil, R.H., Ruget, F., Takác, J., Trnka, M., Klein, T., Nendel, C., **Rötter, R.P.** (2012): Comparing the performance of eleven agroecosystems models in predicting crop yield response to nitrogen under Finnish weather conditions. Maataloustieteen Päivät 2012, 10.-11.1.2012, Viikki, Helsinki: esitelmä- ja posteritiivistelmät (ed. N. Schulman), Suomen maataloustieteellisen seuran tiedote 29, 59.

B3-17

Kahiluoto, H., Himanen, S., Hakala, K., Miettinen, A., Niemi, J., Salo, T., **Rötter, R.P.** (2012). Sopeutumisesta sopeutumiskykyyn - monimuotoisuudesta varmuutta muutoksessa? In N. Schulmann (ed.) Maataloustieteen Päivät 2012, 10.-11.1.2012, Viikki, Helsinki : esitelmä- ja posteritiivistelmät, Suomen maataloustieteellisen seuran tiedote 29, 68.

B3-16

Rötter, R.P., Palosuo, T. & Salo, T. (2012). Next steps and outlook on agro-ecosystems modelling for climate change impact assessments. In N. Schulmann (ed.) Maataloustieteen Päivät 2012, 10.- 11.1.2012, Viikki, Helsinki: esitelmä- ja posteritiivistelmät, Suomen maataloustieteellisen seuran tiedote 29, 58.

B3-15

Rötter, R.P., Palosuo, T. & Salo, T. (2012). Agro-ecosystems models as basic tools in climate change impact assessment. In N. Schulmann (ed.) Maataloustieteen Päivät 2012, 10.-11.1.2012, Viikki, Helsinki: esitelmä- ja posteritiivistelmät, Suomen maataloustieteellisen seuran tiedote 29, 60.

B3-14

Höhn, J., Fronzek, S., Trnka, M., Kahiluoto, H., Carter, T., **Rötter, R.P.** (2012). New 30-year time series of agroclimatic indicators for present and future climate as a basis for assessing different adaptation strategies for crop production in Finland. Adaptation research meets adaptation decision- making: Programme and Abstracts of the Second Nordic International Conference on Climate Change Adaptation, Helsinki, Finland, 29-31 August 2012, 50.

B3-13

Rötter, R.P., Palosuo, T., Salo, T., Kahiluoto, H., Himanen, S., Lehtonen, H. (2012). Modelling interactions of climate, crop management and phenology and their effect on barley yields in Finland (1971- 2010). Adaptation

research meets adaptation decision-making: Programme and Abstracts of the Second Nordic International Conference on Climate Change Adaptation, Helsinki, Finland, 29 -31 August 2012, 42-43.

B3-12
Pirttioja, N.K., Fronzek, S., Carter, T.R., **Rötter, R.P.** (2012). Simulating Adaptive Management Using Impact Models in a Risk Framework. Poster presented at Adaptation Futures: International Conference on Climate Adaptation, Tucson, AZ, USA, 29-31 May 2012.

B3-11
Pirttioja, N., Fronzek, S., **Rötter, R.P.**, Carter, T.R. 2012. Probabilistic assessment of crop adaptation options under a changing climate. In: NORDCLAD-Net/NONAM, *ibid*. p. 50

B3-10
Kassie, B.T., **Rötter, R.P.**, Hengsdijk, H., Kahiluoto, H. (2011). Quantifying current and future climatic risks to cereal production in Ethiopia as a basis for informing adaptation. Proceedings of the Tropentag at Bonn, Germany, October 2011, (http://www.tropentag.de/2011/abstracts/links/Kassie_slyZAisA.pdf).

B3-9
Ewert, F., van Ittersum, M., **Rötter, R.P.**, Angulo, C. Villacis, L.A., Rumbaur, C., Lock, R., Enders, A., Wolf, J. (2010). Climate change impacts on agriculture and adaptation options – Challenges for multi- scale modelling and assessment. Keynote paper, Session 1.1. Proceedings of the AGRO2010, the XIth ESA congress at Montpellier, France, August/September 2010, http://www.agropolis.fr/agro2010/paper/lundi/ewert.pdf

B3-8
Angulo, C., Ewert, F. Villacis, C.L.A., Rumbaur, C., Lock, R., Enders, A., van Ittersum, M., Wolf, J., Meuter, E., **Rötter, R.P.** (2010). Modelling impacts of climate change and technology development on crops in Europe. In J. Wery, I. Shili-Touzi & A. Perrin (eds.) Proceedings of Agro2010 the XIth ESA congress, August 29th - September 3 rd, 2010 Montpellier, France, Montpellier: Agropolis International Editions, 5-6.

B3-7
Kahiluoto, H., Rimhanen, K. & **Rötter, R.P.** (2009). Implications of 4+ degrees global warming on potential of carbon trading for mitigation and food security. Abstract book, International Climate Change Conference, Oxford, UK, 28-30 September.

B3-6
Rötter, R.P., Palosuo, T., Virtanen, N., Salo, T., Ristolainen, A., Fronzek, S., Trnka, M., Dubrovsky, M., Carter, T.R., (2009). What would happen to barley production in Finland if global temperature changes beyond 4_{o}C ?. Abstract book. International Climate Change Conference, Oxford, UK, 28-30 September 2009, 19-25.

B3-5
Palosuo, T., **Rötter, R.P.**, Lehtonen H., Kahiluoto, H., Aakkula, J., Helin, J., Salo, T., Helenius, J., Granlund, J.K., Rankinen, K. & Carter, T.R. (2009). A Modelling Framework for the Assessment of the Impacts of Alternative Policy and Management Options on the Sustainability of Finnish Agrifood Systems. In Shape your sustainability tools – and let your tools shape you. Proceedings of the EFORWOOD final

conference, Uppsala 23-24 September 2009, 2-11. http://87.192.2.62/Eforwood/Portals/0/documents/FinalBookOfAbstracts.pdf

B3-4
Rimhanen, K., Kahiluoto, H. & **Rötter, R.P.** (2009). Exploring potential of carbon trading to enhance adaptive capacity in terms of food security in sub-Saharan Africa. Proceedings of the Tropentag 2009 at Hamburg, Germany, October 2009, 44.

B3-3
Olesen, J.E., Trnka, M., **Rötter, R.P**. et al. (2008). Current perception on climate change impacts and adaptation for arable crops in Europe. Symposium on Climate Change and Variability, WMO and COST 734, 3-6 June 2008, Oscarsborg, Norway, 70.

B3-2
Rötter, R.P., Laborte, A.G., Hoanh, C.T., Van Keulen, H., Van Diepen, C.A. (2002): Options for future agricultural land use in South and Southeast Asia: cross-site experiences at sub-national scale. Proceedings of the International workshop on Integrated Natural Resource Management (INRM), CIAT, Cali, Columbia, Aug 26-31, 2001, Online proceedings, Session 1C.

B3-1
Laborte, A.G., **Rötter, R.P.**, Hoanh, C.T., Nunez, B., Dreiser, C. (2002). Harnessing the power of IT: lessons from developing an integrated web-based system for interactive land use scenario analysis. Proceedings of the International workshop on Integrated Natural Resource Management (INRM), CIAT, Cali, Columbia, Aug 26-31, 2001. Online proceedings, Session 2D.

C Scientific Books (monograph)

C1 Edited book, conference proceedings or special issue of a journal

C1-8
Von Maltitz, G. P., Midgley, G., Veitch, J., Brümmer, C., **Rötter, R. P.,** Viehberg, F. A., Veste M. (Eds.). (2024). *Sustainability of southern African ecosystems under global change: Science for management and policy interventions*, Ecological Studies, Analysis and Synthesis: volume 248. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-10948-5

C1-7
Rötter, R.P., Koch, M. (2019) Der Klimawandel als Herausforderung für Ugandas wichtigsten Exportwirtschaftszweig In: Jahreis, M., Marquart, S., Möllers, N. (Eds.) *Kosmos Kaffee*. Verlag Deutsches Museum, München, Germany.

C1-6
Rötter, R.P., Van Keulen, H., Kuiper, M., Verhagen, J., Van Laar, H.H. (eds.) (2007). Science for Agriculture and Rural Development in Low-income Countries. Dordrecht: Springer. 220 pages

C1-5

Aggarwal P.K., **Rötter, R.P.**, Kalra, N., Van Keulen, H., Hoanh, C.T., Van Laar, H.H. (eds.) (2001). Land use analysis and planning for sustainable food security: with an illustration for the state of Haryana, India. New Dehli: Indian Agricultural Research Institute; Los Baños: International Rice Research Institute; Wageningen: Wageningen University and Research Centre. 167 pages.

C1-4

Rötter, R.P., Van Keulen, H. &. Van Laar, H.H. (eds.) (2000). Synthesis of methodology development and case studies. SysNet Research Paper Series No. 3. Los Baños: IRRI. 94 pages.

C1-3

Rötter, R.P., Van Keulen, H., Laborte, A.G., Hoanh, C.T., Van Laar, H.H. (eds.). (2000). Systems research for optimizing future land use in South and Southeast Asia. SysNet Research Paper Series No. 2. Los Baños: IRRI. 266 pages.

C1-2

Rötter, R.P., Hoanh, C.T. & Teng, P.S. (eds.) (1998): A systems approach to analyzing land use options for sustainable rural development in South and Southeast Asia. IRRI Discussion Paper Series No. 28. SysNet Special Project Report. Manila: International Rice Research Institute. 110 pages.

C1-1

Rötter R.P., Hoanh, C.T., Luat, N.V., Van Ittersum, M.K., Van Laar, H.H. (eds.) (1998). Exchange of methodologies in land use planning. Proceedings of an International Workshop held on 15-19 June 1998 at Can Tho City, Vietnam. Sysnet Research Paper Series No. 1. Los Baños: IRRI. 168 pages.

D) Publications intended for professional communities (a selection)

D1 Article in a professional manual or guide or professional information system, textbook material.

D1-20
Rötter, R.P. (1988). Methodology for agro-climatic description and monitoring. In H. Stroebel (ed.) Methodology. Fertilizer Use Recommendation Project. Main Report, GTZ/KARI, Nairobi, Kenya, 80- 131.

D1-19
Smaling E.M.A. & **Rötter, R.P.** (1988g). Kwale District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 31, GTZ/KARI, Nairobi, Kenya.

D1-18
Smaling, E.M.A., & **Rötter, R.P.** (1988f). Kilifi District. Climate and soil description. In: Stroebel, ed., Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 29, GTZ/KARI, Nairobi, Kenya.

D1-17
Smaling, E.M.A. & **Rötter, R.P. (**1988e). Lamu District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 28, GTZ/KARI, Nairobi, Kenya.

D1-16
Smaling, E.M.A. & **Rötter, R.P.** (1988d). Kitui District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 27, GTZ/KARI, Nairobi, Kenya.

D1-15
Smaling, E.M.A. & **Rötter, R.P.** (1988c). Machakos District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 26, GTZ/KARI, Nairobi, Kenya.

D1-14
Smaling, E.M.A. & **Rötter, R.P**. (1988b). Meru District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 25, GTZ/KARI, Nairobi, Kenya.

D1-13
Smaling, E.M.A. & **Rötter, R.P.** (1988a). Embu District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 24, GTZ/KARI, Nairobi, Kenya.

D1-12
Smaling, E.M.A. & **Rötter, R.P. (**1987l). Laikipia District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 14, GTZ/KARI, Nairobi, Kenya.

D1-11

Smaling, E.M.A. & **Rötter, R.P.** (1987k). West Pokot District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 12, GTZ/KARI, Nairobi, Kenya.

D1-10
Smaling, E.M.A. & **Rötter, R.P. (**1987j). Trans Nzoia District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 10, GTZ/KARI, Nairobi, Kenya.

D1-9

Smaling, E.M.A. & **Rötter, R.P.** (1987i). Kericho District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 9, GTZ/KARI, Nairobi, Kenya.

D1-8
Smaling, E.M.A. & **Rötter, R.P.** (1987h). Nandi District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 8, GTZ/KARI, Nairobi, Kenya.

D1-7
Smaling, E.M.A. & **Rötter, R.P.** (1987g). Kakamega District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 7, GTZ/KARI, Nairobi, Kenya.

D1-6
Smaling, E.M.A. & **Rötter, R.P. (**1987f). Bungoma District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 6, GTZ/KARI, Nairobi, Kenya.

D1-5
Smaling, E.M.A. & **Rötter, R.P**. (1987e). Busia District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 5, GTZ/KARI, Nairobi, Kenya.
D1-4
Smaling, E.M.A. & **Rötter, R.P.** (1987d). Siaya District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 4, GTZ/KARI, Nairobi, Kenya.

D1-3
Smaling, E.M.A. & **Rötter, R.P.** (1987c). Kisumu District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 3, GTZ/KARI, Nairobi, Kenya.
D1-2
Smaling, E.M.A. & **Rötter, R.P**. (1987b). South Nyanza District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 2, GTZ/KARI, Nairobi, Kenya.

D1-1
Smaling, E.M.A. & **Rötter, R.P.** (1987a). Kisii District. Climate and soil description. In H. Stroebel (ed.) Fertilizer Use Recommendation Project. Description of the various trial sites. Vol. 1, GTZ/KARI, Nairobi, Kenya.

D2 Professional conference proceedings

D2-1
Rötter, R.P. & Lenga, F.K. (1990). Yield response of Katumani composite B maize as influenced by soil, climate and fertilizer rates. Chapter 11 GTZ/FURP Report 1990, Proceedings, KARI National Soil Fertility workshop, Nairobi NARL on 28th August 1990, Nairobi and Eschborn.

D3 Published development or research report or study

D3-13
Joseph, J.E., Rao, K.P.C., Ngwira, A.R., Swai, E., **Rötter, R.P.,** Whitbread, A.M., (2021) Analysis of rainfall variability and trends for better climate risk management in the major agro-ecological zones in Tanzania. CCAFS Working Paper no. 363. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
DOI:https://hdl.handle.net/10568/114910

D3-12
Hakala, K., Himanen, S., **Rötter, R.P.**, Höhn, J., Jauhiainen, L., Kaseva, J., Ketoja, E., Salo, T., Kahiluoto, H. (2012). Satoa joka säällä - siemeniä erilaisiin tulevaisuuksiin. In H. Kahiluoto & S. Himanen (eds.) MTT Raportti 43, Monimuotoisuudesta sopeutumiskykyä Ruokaketju uusille raiteille? 2. korjattu versio, Jokioinen: MTT, 15-43.

D3-11
Kahiluoto, H., Hakala, K., Miettinen, A., Niemi, J., **Rötter, R.P.**, Salo, T., Himanen, S. (2012). Pääviestit toimijoille. In H. Kahiluoto & S. Himanen (eds.) MTT Raportti 43, Monimuotoisuudesta sopeutumiskykyä Ruokaketju uusille raiteille? 2. korjattu versio, Jokioinen: MTT, 52-58.

D3-10
Wolf, J., Reidsma, P., Schaap, B., Mandryk, M., Kanellopoulos, A., Ewert, F., van Oort, P., Angulo, C., Rumbaur, C., Lock, R., Enders, A., Adenauer, M., Heckelei, T., **Rötter, R.P.**, Fronzek, S., Carter, T.R., Verhagen, A., van Ittersum, M.K. (2012). Assessing the adaptive capacity of agriculture in the Netherlands to the impacts of climate change under different market and policy scenarios. Agri Adapt project, Synthesis report, Wageningen UR, University of Bonn, MTT, Finnish Environment Institute, KvR report nr. 059/12.

D3-9
Ewert, F., Angulo, C., Rumbaur, C., Lock, R., Enders, A., Andenäuer, M., Heckelei, T., van Ittersum, M., Wolf, J., **Rötter, R.P.** (2011). Assessing the adaptive capacity of agriculture in the Netherlands to the impacts of climate change under different market and policy scenarios. AgriAdapt Project Reports no.2 & 3. Dutch Research Program Climate Change and Spatial Planning, 49.

D3-8
De Jager, A. & **Rötter, R.P.** (2007). Rural Economic Development. In P.S. Bindraban & S. Vellema (eds.) Linking Policy, practice and research in international development. Report 127, Wageningen UR, The Netherlands, 39-42.

D3-7
Van Ierland, E. Bruin, K. de, Dellink, R.B., Ruijs, A., **Rötter R.P**. et al., (2007). Climate change. Routeplanner subprojects 4 & 5, A qualitative assessment of climate adaptation strategies. MNP Report.

D3-6
Van Ierland, E.C., De Bruin, K., Dellink, R.B., Ruijs, A., Bolwidt, L., van Buuren, A., Graveland, J., de Groot, R.S, Kuikman, P., Nillesen, E.E.M., Platteeuw, M., Reinhard, S., Tassone, V.C., Verhagen, A., **Rötter, R.P.**, Verzandvoort-van Dijck, S. (2006). A qualitative assessment of climate Adaptation options and some estimates of adaptation costs. Netherlands Policy Programme ARK, The Netherlands. 181 pages.

D3-5
Ponsioen, T.C., Laborte, A.G., **Rötter, R.P.**, Hengsdijk, H., Wolf, J. (2004). TechnoGIN-3: a Technical Coefficient Generator for cropping systems in East and South-east Asia. Quantitative Approaches to Systems Analysis No. 26. Wageningen, The Netherlands.

D3-4
Overbeek, G.B.J., Beusen. Boers, P.C.M., Van den Born, G.J., Groenendijk, P., Van Grinsven, J.J.M., Kroon, T., Van der Meer, H.G., Oosterom, H.P., Van Puijenbroek, P.J.T.M., Roelsma, J., Roest, C.W.J., **Rötter, R.P.**, Tiktak, A., Van Tol, S.M. (2002). Plausibiliteitsdocument STONE 2.0. Globale verkenning van de plausibiliteit van het model STONE versie 2.0 voor de modellering van uit- en afspoeling van N en P. RIVM rapport 718501001, RIVM, Bilthoven, The Netherlands [in Dutch].

D3-3
Rötter, R.P., Van Grinsven, J.J.M., Boers, P., Beusen, A.H.W., Oenema, O. (2001). De status van het rekeninstrumentarium STONE versie 2.0. Alterra Report 378, Alterra, Wageningen, The Netherlands [in Dutch].

D3-2
Rötter, R.P. & van Diepen, C.A. (1994). Rhine Basin Study. Vol.2, Climate Change Impact on Crop Yield Potentials and Water Use. Wageningen and Lelystad, the Netherlands, SC-DLO Report, 85.2. 145 pages.

D3-1
Rötter, R.P. (1994). Rhine basin Study: Land Use Projections based on biophysical and socio- economic analyses. Vol.1, Biophysical classifcation as a general framework.- SC-DLO Report 85.1, Wageningen and Lelystad. 105 pages.

D4 Textbook, professional manual or guide, dictionary

D4-2
Laborte, A.G., Nuñez, B., Dreiser, C., **Rötter, R.P.** (2001). SysNet Tools II: the MGLP user interface for interactive land use scenario analysis. IRRI Technical Bulletin No. 8. Manila (Philippines): International Rice Research Institute, 31 pages (+ CD-ROM SysNet Tools, version 1.1).

D4-1
Boogaard, H.L., Van Diepen, C.A., **Rötter, R.P.**, Cabrera, J.M., Van Laar, H.H. (1998). WOFOST 7.1. User's guide for the WOFOST 7.1 crop growth simulation model. DLO Winand Staring Centre and International Rice Research Institute. (Technical Document 52), Wageningen, The Netherlands, 140 pages.

E) Research-related pulications directed to the general public (a selection)

E1 Popularised article

E1-3

Rötter, R. P., Köster, M. (2022). Klimawandel und Ernährungssicherheit: Inwieweit könnte eine angepasste Landwirtschaft in der Europäischen Union zur globalen Ernährungssicherheit beitragen?. *Ifo Schnelldienst*, 75(8), 10-13.

E1-2
Van den Berg, M., Hengsdijk, H., Wang Guanghuo, Wolf, J., van Ittersum, M., **Rötter, R.P.** (2005). The future of rural income and rice production in China, IIAS Newsletter September edition, 38, 34. (also available online at: http://www.iias.nl/iias/show/id=52078)

E1-1
Rötter, R.P. (2004). Securing Asia's rice harvest. In ISNAR, Method in our madness. The Hague, The Netherlands, 16-29.

E2 Popularised monograph

E2-7
Rötter, R.P. & Palosuo, T. (2013). "Projections of climate change impacts on wheat production uncertain: A call for model improvement." Phys.org. 28 Jun 2013. http://phys.org/news/2013-06-climate-impacts-wheatproduction-uncertain.html

E2-6
Rötter, R.P. & Carter, T.R. (2011) Crop-climate models need an urgent update (online at: https://portal.mtt.fi/portal/page/portal/mtt_en/mtt/news/pressreleases/2011/Crop-climate%20models%20need%20an%20urgent%20update)

E2-5
Rötter, R.P., van Keulen, H., Kuiper, M., Verhagen, A., Meijerink, G. (2006). Science for sustainable agriculture and rural development in the South. International Cooperation Programme, Wageningen University & Research centre, Wageningen, The Netherlands. 21 pages. (also online available at www.wi.wur.nl/news/)

E2-4
Rötter, R.P. et al., (2000). Breaking new ground. Contribution of SysNet project to the international cooperation programme, IRRI annual report 1999/2000. (online available: www.irri.cgiar.org Media Hotline May, 2000).

E2-3
Rötter, R.P. (2000). A Systems Research Network for Ecoregional Land Use Planing in support of Natural Resource Management in Asia (SYSNET). Annual Report. 1999. IRRI, , Manila, Philippines. 125 pages.

E2-2
Rötter, R.P. (1999). A Systems Research Network for Ecoregional Land Use Planing in support of Natural Resource Management in Asia (SYSNET). Annual Report. 1998. IRRI, , Manila, Philippines. 95 pages.

E2-1
Rötter, R.P. (1998). A Systems Research Network for Ecoregional Land Use Planing in support of Natural Resource Management in Asia (SYSNET). Annual Report 1997. IRRI, , Manila, Philippines. 67 pages.

F) Theses

F1 Doctoral dissertation (monograph)

F1-1
Rötter, R.P. (1993). Simulation of the biophysical limitations to maize production under rainfed conditions in Kenya. Evaluation and application of the model WOFOST. PhD Thesis, Universität Trier, Germany (= Materialien zur Ostafrika-Forschung, Heft 12), 297 pages.

G) Other pieces of work (audiovisual material, ICT software -a selection)

G1 Audiovisual material

G1-1
Websites (and associated CD-ROMS)
- IRMLA project (EU-INCO) documentation website: or via www.splu.nl
- RMO Beijing (LNV-DLO-IC) documentation website: www.rmo-beijing.alterra.nl
- SUMAPOL 2005 website: www.sumapol2005.org (proceedings also available on CD-ROM)
- SysNet 99 Conference website: www.irri.sysnet99.org (proceedings also available on CD-ROM)
- SysNet (Systems Research Network documentation) website: www.irri.sysnet.org
- MODAGS (2012-1015) (Multi-level integrated modelling and analysis of agrifood systems) website: www.mtt.fi/modags

G2 ICT software

G2-1
CD-ROMS containing software (models, expert systems) developed
- WOFOST 7.1 crop growth simulation model; www.wofost.wur.nl (Alterra, 2002)
- SysNet Tools for interactive land use scenario analysis (IRRI and Wageningen UR,1999)
- SysNet MGLP user interface (IRRI and Wagenigen UR, 2001)*
- TechnoGIN3: Technical coefficient generator for Sout-east Asia (PPS and Alterra, 2004)**
- IRMLA tools for land use systems analysis (Wageningen UR, 2005)*** - Nordic AgriCLIM calculation of agro-climatic indicators for Finnish crops****

[* see, Laborte et al., 2001. SysNet Tools II; ** see, Ponsioen et al., 2006, Agricultural Systems 87, 80-100 (=A.34) and Ponsioen et al., 2004. QASA Report 26 *** see, www.irmla.alterra.nl **** outputs shown on www.mtt.fi/modags/]