10 Confidence Duku et al.

References

Anderson PK, Cunningham AA, Patel NG, Morales FJ, Epstein PR, Daszak P (2004) Emerging infectious diseases of plants: pathogen pollution, climate change and agrotechnology drivers. Trends in Ecology & Evolution 19(10):535–544, DOI http://dx.doi.org/10.1016/j.tree.2004.07.021, URL http://www.sciencedirect.com/science/article/pii/S0169534704002186

- Barreiro-Hurle J (2012) Analysis of incentives and disincentives for rice in the united republic of tanzania. Technical note series, MAFAP, FAO, Rome
- Bivand R, Keitt T, Rowlingson B (2014) rgdal: Bindings for the Geospatial Data Abstraction Library. URL http://CRAN.R-project.org/package=rgdal, R package version 0.8-16
- Boko M, Niang I, Nyong A, Vogel C, Githeko A, Medany M, Osman-Elasha B, Tabo R, Yanda P (2007) Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, chap Africa, pp 433–467
- Bouman B, Kropff M, Tuong T, Woperies M, ten Berge H, van Laar H (2001) ORYZA2000: modeling low-land rice. International Rice Research Institute, and Wageningen: Wageningen University and Research Center, Suite 1009, Pacific Bank Building, 6776 Ayala Avenue, Makati City, Philippines
- Chakraborty S, Newton AC (2011) Climate change, plant diseases and food security: an overview. Plant Pathology 60(1):2–14, DOI 10.1111/j.1365-3059.2010.02411.x, URL http://dx.doi.org/10.1111/j.1365-3059.2010.02411.x
- Coakley SM, Scherm H, Chakraborty S (1999) Climate change and plant disease management. Annual Review of Phytopathology 37(1):399–426, DOI 10.1146/annurev.phyto.37.1.399, URL http://dx.doi.org/10.1146/annurev.phyto.37.1.399, pMID: 11701829, http://dx.doi.org/10.1146/annurev.phyto.37.1.399
- Diagne A, Amovin-Assagba E, Futakuchi K, Wopereis M (2013) Realizing Africa's rice promise, CABI, Nosworthy Way, Wallingford, Oxfordshire OX10 8DE, UK, chap Estimation of cultivated area, number of farming households and yield for major rice-growing environments in Africa, pp 35–45
- Food and Agriculture Organization of the United Nations (2015) CROPCALENDAR. Crop calendar (Database). Webpage, URL http://data.fao.org/ref/2ca1cadd-9ee2-42ee-84d4-34473f2508fa.html?version=1.0
- Foundation PS (2014) The Python Language Reference. Python Software Foundation, URL https://docs.python.org/2/
- SP, Garrett KA, Dendy MN, Frank EE, Rouse SE (2006)Travers Climate change effects on plant disease: Genomes to ecosystems. Annual Review 44(1):489-509, DOI 10.1146/annurev.phyto.44.070505.143420, Phytopathology http://dx.doi.org/10.1146/annurev.phyto.44.070505.143420, pMID: 16722808, http://dx.doi.org/10.1146/annurev.phyto.44.070505.143420
- Geng S, de Vries FWP, Supit I (1986) A simple method for generating daily rainfall data. Agricultural and Forest Meteorology 36(4):363–376, DOI http://dx.doi.org/10.1016/0168-1923(86)90014-6, URL http://www.sciencedirect.com/science/article/pii/0168192386900146
- Hijmans RJ (2014) raster: raster: Geographic data analysis and modeling. URL http://CRAN.R-project.org/package=raster, R package version 2.2-31
- Hijmans RJ, Forbes GA, Walker TS (2000) Estimating the global severity of potato late blight with gis-linked disease forecast models. Plant Pathology 49(6):697–705, DOI 10.1046/j.1365-3059.2000.00511.x, URL http://dx.doi.org/10.1046/j.1365-3059.2000.00511.x
- Hijmans RJ, Savary S, Pangga R, Aunario J (2009) cropsim: Simulation modeling of crops and their diseases. R nackage version 0.2.0-5
- Institute ESR (2011) ArcGIS Desktop: Release 10. Environmental Systems Research Institute, Redlands, CA Jones P, Thornton P, Heinke J (2009) Generating characteristic daily weather data using downscaled climate model data from the ipcc's fourth assessment report
- Juroszek P, von Tiedemann A (2011) Potential strategies and future requirements for plant disease management under a changing climate. Plant Pathology 60(1):100–112, DOI 10.1111/j.1365-3059.2010.02410.x, URL http://dx.doi.org/10.1111/j.1365-3059.2010.02410.x
- Kermack W, McKendrick A (1927) A contribution to the mathematical theory of epidemics. Proceedings of the Royal Society of London 115:700–721
- Kim KH, Cho J, Lee YH, Lee WS (2015) Predicting potential epidemics of rice leaf blast and sheath blight in south korea under the {RCP} 4.5 and {RCP} 8.5 climate change scenarios using a rice disease epidemiology model, {EPIRICE}. Agricultural and Forest Meteorology 203(0):191–207, DOI http://dx.doi.org/10.1016/j.agrformet.2015.01.011, URL http://www.sciencedirect.com/science/article/pii/S016819231500012X

- Liu J, Williams JR, Wang X, Yang H (2009) Using MODAWEC to generate daily weather data for the EPIC model. Environmental Modelling & Software 24(5):655–664, DOI http://dx.doi.org/10.1016/j.envsoft.2008.10.008, URL http://www.sciencedirect.com/science/article/pii/S1364815208001904
- Luck J, Spackman M, Freeman A, Trebicki P, Griffiths W, Finlay K, Chakraborty S (2011) Climate change and diseases of food crops. Plant Pathology 60(1):113–121, DOI 10.1111/j.1365-3059.2010.02414.x, URL http://dx.doi.org/10.1111/j.1365-3059.2010.02414.x
- Madden L, Hughes G, van den Bosch F (2007) The study of plant disease epidemics. The American Phytopathological Society, APS Press, St. Paul, Minnesota
- Madden LV (2006) Botanical epidemiology: some key advances and its continuing role in disease management. European Journal of Plant Pathology 115(1):3–23, DOI 10.1007/s10658-005-1229-5, URL http://dx.doi.org/10.1007/s10658-005-1229-5
- Pautasso M, Dehnen-Schmutz K, Holdenrieder O, Pietravalle S, Salama N, Jeger MJ, Lange E, Hehl-Lange S (2010) Plant health and global change some implications for landscape management. Biological Reviews 85(4):729–755, DOI 10.1111/j.1469-185X.2010.00123.x, URL http://dx.doi.org/10.1111/j.1469-185X.2010.00123.x
- Portmann FT, Siebert S, Döll P (2010) Mirca2000—global monthly irrigated and rainfed crop areas around the year 2000: A new high-resolution data set for agricultural and hydrological modeling. Global Biogeochemical Cycles 24(1), DOI 10.1029/2008GB003435, URL http://dx.doi.org/10.1029/2008GB003435
- R Core Team (2014) R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna, Austria, URL http://www.R-project.org/
- Ripley B, Lapsley M (2013) RODBC: ODBC Database Access. URL http://CRAN.R-project.org/package=RODBC, R package version 1.3-10
- Lobell DB, Linderman Ν (2011)Rowhani P, M, Ramankutty Climate vari-Agricultural and Forest ability crop production in tanzania. and Meteorolhttp://dx.doi.org/10.1016/j.agr formet. 2010.12.002,151(4):449-460, DOI URL http://www.sciencedirect.com/science/article/pii/S0168192310003357
- Saito K, Nelson A, Zwart S, Niang A, Sow A, Yoshida H, Wopereis M (2013) Realizing Africa's rice promise, CABI, Nosworthy Way, Wallingford, Oxfordshire OX10 8DE, UK, chap Towards a better understanding of biophysical determinants of yield gaps and potential expansion of rice area in Africa, pp 188–203
- Savary S, Willocquet L, Elazegui FA, Teng PS, Van Du P, Zhu D, Tang Q, Huang S, Lin X, Singh HM, Srivastava RK (2000) Rice pest constraints in tropical asia: Characterization of injury profiles in relation to production situations. Plant Disease 84(3):341–356, DOI 10.1094/PDIS.2000.84.3.341, URL http://dx.doi.org/10.1094/PDIS.2000.84.3.341
- Savary S, Nelson A, Sparks AH, Willocquet L, Duveiller E, Mahuku G, Forbes G, Garrett KA, Hodson D, Padgham J, Pande S, Sharma M, Yuen J, Djurle A (2011) International agricultural research tackling the effects of global and climate changes on plant diseases in the developing world. Plant Disease 95(10):1204–1216, DOI 10.1094/PDIS-04-11-0316, URL http://dx.doi.org/10.1094/PDIS-04-11-0316
- Savary S, Nelson A, Willocquet L, Pangga I, Aunario J (2012) Modeling and mapping potential epidemics of rice diseases globally. Crop Protection 34(0):6–17, DOI http://dx.doi.org/10.1016/j.cropro.2011.11.009, URL http://www.sciencedirect.com/science/article/pii/S0261219411003656
- Seck P, Toure A, Coulibaly J, Diagne A, Wopereis M (2013) Realizing Africa's rice promise, CABI, Nosworthy Way, Wallingford, Oxfordshire OX10 8DE, UK, chap Africa's rice economy before and after the 2008 rice crisis, pp 24–34
- Sere Y, Fargette D, Abo M, Wydra K, Bimerew M, Onasanya A, Akator S (2013) Realizing Africa's rice promise, CABI, Nosworthy Way, Wallingford, Oxfordshire OX10 8DE, UK, chap Managing the major diseases of rice in Africa, pp 213–228
- Sparks AH, Forbes GA, Hijmans RJ, Garrett KA (2014) Climate change may have limited effect on global risk of potato late blight. Global Change Biology 20(12):3621–3631, DOI 10.1111/gcb.12587, URL http://dx.doi.org/10.1111/gcb.12587
- Sutherst RW, Constable F, Finlay KJ, Harrington R, Luck J, Zalucki MP (2011) Adapting to crop pest and pathogen risks under a changing climate. Wiley Interdisciplinary Reviews: Climate Change 2(2):220–237, DOI 10.1002/wcc.102, URL http://dx.doi.org/10.1002/wcc.102
- Thornton PK, Jones PG, Alagarswamy G, Andresen J (2009) Spatial variation of crop yield response to climate change in east africa. Global Environmental Change 19(1):54–65, DOI http://dx.doi.org/10.1016/j.gloenvcha.2008.08.005, URL http://www.sciencedirect.com/science/article/pii/S0959378008000812
- Verdier V, Cruz CV, Leach JE (2012) Controlling rice bacterial blight in africa: Needs and prospects. Journal of Biotechnology 159(4):320–328, DOI http://dx.doi.org/10.1016/j.jbiotec.2011.09.020, URL http://www.sciencedirect.com/science/article/pii/S0168165611005578

12 Confidence Duku et al.

Willocquet L, Savary S, Fernandez L, Elazegui F, Teng P (2000) Development and evaluation of a multiple-pest, production situation specific model to simulate yield losses of rice in tropical asia. Ecological Modelling 131(2 – 3):133–159, DOI http://dx.doi.org/10.1016/S0304-3800(00)00271-4, URL http://www.sciencedirect.com/science/article/pii/S0304380000002714

- Willocquet L, Savary S, Fernandez L, Elazegui F, Castilla N, Zhu D, Tang Q, Huang S, Lin X, Singh H, Srivastava R (2002) Structure and validation of ricepest, a production situation-driven, crop growth model simulating rice yield response to multiple pest injuries for tropical asia. Ecological Modelling 153(3):247–268, DOI http://dx.doi.org/10.1016/S0304-3800(02)00014-5, URL http://www.sciencedirect.com/science/article/pii/S0304380002000145
- Willocquet L, Elizegui FA, Castilla N, Fernandez L, , Fischer KS, Peng S, Ten PS, Srivastava RK, Singh HM, Zhu D, Savary S (2004) Research priorities for rice management in tropical asia: A simulation analysis of yield losses and management efficiencies. Phytopathology 94:672–682
- Yoshida S (1981) Fundamentals of Rice Science. The International Rice Research Institute, PO Box 933, Metro Manila, Philippines