CCARDESA

Centre for Coordination of Agricultural Research & Development for Southern Africa

Centre De Coordination De La Recherche Et Du Développement Agricole De L'afrique Australe

Do Centro De Coordenação Da Investigação E Desenvolvimento Agrário Da África Austral

PLEASE FIND THE CV FORMAT BELOW

CURRICULUM VITAE

1. **Family name:** CRESPO
2. **First names:** OLIVIER
3. **Nationality:** FRENCH
4. **Country of Residence:** SOUTH AFRICA
5. **Contact details:** ob.crespo@uct.ac.za

6. **Education:**

Institution [Date from - Date to]	**Qualification obtained:**
University of Toulouse III, France [2004-11 to 2008-02]	PhD

7. **Language skills:** (1 - excellent; 5 - basic)

Language	**Reading**	**Speaking**	**Writing**
English	1	1	1
French	1	1	2 (need catching up with technical vocabulary)

8. **Membership of professional bodies:**

SASCP (South African Society of Crop Production)
SASAS (South African Society of Atmospheric Science)

9. **Specialisation** (e.g. Agronomy, soil fertility, agricultural economics, veterinary science etc.)

Agricultural development under climate change

10. **Present position:** Senior Research Officer

11. **Key Skills:** Agricultural system analysis

12. **Specific experience:**

Country	**Date from - Date to**
South Africa	2008 -to date

France	before

13. Professional experience (Formal employment and Assignments/consultancies)

Date from - to	Location	Organisation	Position	Description of Duties and achievements
2022 - to date	South Africa	University of Cape Town	Senior Research Officer	Research, supervision, project design and fund sourcing
2013 - 2021	South Africa	University of Cape Town	Research Officer	Research, supervision, project development
2008 - 2012	South Africa	University of Cape Town	Postdoctoral Fellow	Research, project support

14. Publications

PEER REVIEWED PUBLICATIONS

Last updated list available at *http://orcid.org/0000-0001-7320-9428*

2022	F. Rusere, L.V. Dicks, S. Mkuhlani, **O. Crespo**, 2022. Integrating a crop model with a greenhouse gas calculator to identify low carbon agricultural intensification options for smallholder farmers in rural South Africa. Clean Technologies and Environmental Policy Vol., pp. https://doi.org/10.1007/s10098-022-02272-7
2021	G.M. Makonya, J.B.O. Ogola, H. Gabier, M.S. Rafudeen, A. Muthama Muasya, **O. Crespo**, S. Maseko, A.J. Valentine, C.O. Ottosen, E. Rosenqvist, S.B.M. Chimphango, 2021. Proteome changes and associated physiological roles in chickpea (Cicer arietinum) tolerance to heat stress under field conditions. Functional Plant Biology Vol.49, pp.13-24. https://doi.org/10.1071/FP21148 S. Homann-Kee Tui, P. Masikati, K. Descheemaeker, G. Sisito, B. Francis, T. Senda, **O. Crespo**, E.N. Moyo, R.O. Valdivia, 2021. Transforming Smallholder Crop–Livestock Systems in the Face of Climate Change: Stakeholder-Driven Multi-Model Research in Semi-Arid Zimbabwe, Chapter 5 in: Handbook of Climate Change and Agroecosystems: Climate Change and Farming System Planning in Africa and South Asia: AgMIP Stakeholder-driven Research (part 2), C. Rosenzweig, C.Z. Mutter, E.M. Contreras (Eds), World Scientific Publishing. https://doi.org/10.1142/9781786348814_0005 W. Durand, D. Cammarano, **O. Crespo**, T. Mpusaing, H. Ngwenya, A. Fourie, W.A. Tesfuhuney, 2021. Assessing the Impact of Climate Change on the Staple Baskets of Botswana and South Africa, Chapter 4 in: Handbook of Climate Change and Agroecosystems: Climate Change and

	Farming System Planning in Africa and South Asia: AgMIP Stakeholder-driven Research (part 2), C. Rosenzweig, C.Z. Mutter, E.M. Contreras (Eds), World Scientific Publishing. https://doi.org/10.1142/9781786348814_0004 S. Homann-Kee Tui, K. Descheemaeker, R.O. Valdivia, P. Masikati, G. Sisito, E.N. Moyo, **O. Crespo**, A.C. Ruane, C. Rosenzweig, 2021. Climate change impacts and adaptation for dryland farming systems in Zimbabwe: a stakeholder-driven integrated multi-model assessment. Climatic Change Vol.168, art.10(2021). https://doi.org/10.1007/s10584-021-03151-8
2020	P.A. Williams, S.K. Ng'ang'a, **O. Crespo**, M. Abu, 2020. Cost and benefit analysis of adopting climate adaptation practices among smallholders: The case of five selected practices in Ghana. Climate Services, Vol.20, art.100198. https://doi.org/10.1016/j.cliser.2020.100198 G.M. Makonya, J.B.O. Ogola, A.M. Muasya, **O. Crespo**, et al., 2020. Intermittent moisture supply induces drought priming responses in some heat-tolerant chickpea genotypes. Crop Science, Vol.60, pp.2527– 2542. https://doi.org/10.1002/csc2.20228 P.A. Williams, O. Crespo, M. Abu, 2020. Assessing vulnerability of horticultural smallholders' to climate variability in Ghana: applying the livelihood vulnerability approach. Environment, Development and Sustainability, Vol.22, pp.2321–2342. https://doi.org/10.1007/s10668-018-0292-y D. MacAlister, A.M. Muasya, **O. Crespo**, J.B.O. Ogola, S. Maseko, A.J. Valentine, C.O. Ottosen, E. Rosenqvist, S.B.M. Chimphango, 2020. Stress tolerant traits and root proliferation of Aspalathus linearis (Burm.f.) R. Dahlgren grown under differing moisture regimes and exposed to drought, South African Journal of Botany, Vol.131, pp.342-350. https://doi.org/10.1016/j.sajb.2020.03.003 T.S. Egbebiyi, **O. Crespo**, C. Lennard, M. Zaroug, G. Nikulin, I. Harris, J. Price, N. Forstenhäusler, R. Warren, 2020. Investigating the potential impact of 1.5, 2 and 3°C global warming levels on crop suitability and planting season over West Africa. PeerJ - Life & Environment, art. 8:e8851 https://doi.org/10.7717/peerj.8851 D. Cammarano, R.O. Valdivia, Y.G. Beletse, W. Durand, **O. Crespo**, et al., 2020. Integrated assessment of climate change impacts on crop productivity and income of commercial maize farms in northeast South Africa. Food Security, Vol.12(3), pp.659–678. https://doi.org/10.1007/s12571-020-01023-0 D. MacAlister, A.M. Muasya, **O. Crespo**, J.B.O. Ogola, S.T. Maseko, A.J. Valentine, C.O. Ottosen, E. Rosenqvist, S.B.M. Chimphango, 2020. Effect of temperature on plant growth and stress tolerant traits in rooibos in the Western Cape, South Africa, Scientia Horticulturae, Vol.263, art.109137. https://doi.org/10.1016/j.scienta.2019.109137. P. Wolski, D. Lobell, D. Stone, I. Pinto, **O. Crespo**, P. Johnston, 2020. On the role of anthropogenic climate change in the emerging food crisis in southern Africa in the 2019–2020 growing season. Global Change Biology, Vol.26(5), pp.2729-2730. https://doi.org/10.1111/gcb.15047 F. Rusere, **O. Crespo**, L. Dicks, S. Mkuhlani, J. Francis, L. Zhou, 2020. Enabling acceptance and use of ecological intensification options through engaging smallholder farmers in semi-arid rural Limpopo and Eastern Cape, South Africa. Agroecology and Sustainable Food Systems, Vol.44(6), pp.696-725. https://doi.org/10.1080/21683565.2019.1638336 S. Mkuhlani, **O. Crespo**, F. Rusere, L. Zhou, J. Francis, 2020. Classification of small-scale farmers for improved rainfall variability management in South Africa, Agroecology and Sustainable Food Systems, Vol.44(1), pp.7-29.

	https://doi.org/10.1080/21683565.2018.1537325
2019	F. Rusere, S. Mkuhlani, O. Crespo, O., L.V. Dicks, 2019. Developing pathways to improve smallholder agricultural productivity through ecological intensification technologies in semi-arid Limpopo, South Africa. African Journal of Science, Technology, Innovation and Development, Vol.11(5), pp.543-553. https://doi.org/10.1080/20421338.2018.1550936 P.A. Williams, **O. Crespo**, M. Abu, 2019. Adapting to changing climate through improving adaptive capacity at the local level – The case of smallholder horticultural producers in Ghana, Climate Risk Management, Vol.23, pp.124-135. https://doi.org/10.1016/j.crm.2018.12.004 P. Masikati, K. Descheemaeker, **O. Crespo**, 2019. Understanding the Role of Soils and Management on Crops in the Face of Climate Uncertainty in Zimbabwe: A Sensitivity Analysis. In: T. Rosenstock, A. Nowak, E. Girvetz (eds) The Climate-Smart Agriculture Papers. Springer, Cham. https://doi.org/10.1007/978-3-319-92798-5_5 T.S. Egbebiyi, C. Lennard, **O. Crespo**, P. Mukwenha, S. Lawal, K. Quagraine, 2019. Assessing Future Spatio-Temporal Changes in Crop Suitability and Planting Season over West Africa: Using the Concept of Crop-Climate Departure. Climate, Vol.7(2), art.102. https://doi.org/10.3390/cli7090102 T.S. Egbebiyi, **O. Crespo**, C. Lennard, 2019. Defining Crop–Climate Departure in West Africa: Improved Understanding of the Timing of Future Changes in Crop Suitability. Climate, Vol.7(9), art.101. https://doi.org/10.3390/cli7090101 G.M. Makonya, J.B.O. Ogola, A.M. Muasya, **O. Crespo**, S. Maseko, A.J. Valentine, C.O. Ottosen, E. Rosenqvist, S.B.M. Chimphango, 2019. Chlorophyll fluorescence and carbohydrate concentration as field selection traits for heat tolerant chickpea genotypes, Plant Physiology and Biochemistry, Vol.141, pp.172-182. https://doi.org/10.1016/j.plaphy.2019.05.031 R. Hunter, **O. Crespo**, 2019. Large Scale Crop Suitability Assessment Under Future Climate Using the Ecocrop Model: The Case of Six Provinces in Angola's Planalto Region. In: T. Rosenstock, A. Nowak, E. Girvetz (eds) The Climate-Smart Agriculture Papers. Springer, Cham. https://doi.org/10.1007/978-3-319-92798-5_4
2018	P.A. Williams, **O. Crespo**, M. Abu, N.P. Simpson, 2018. A systematic review of how vulnerability of smallholder agricultural systems to changing climate is assessed in Africa, Environmental Research Letters, Vol.13(10), art.103004. https://doi.org/10.1088/1748-9326/aae026 K. Abera, **O. Crespo**, J. Seid, F. Mequanent, 2018. Simulating the impact of climate change on maize production in Ethiopia, East Africa, Environmental Systems Research, Vol.7(1), art.4. http://dx.doi.org/10.1186/s40068-018-0107-z K. Descheemaeker, M. Zijlstra, P. Masikati, **O. Crespo**, S. Homann-Kee Tui, 2018. Effects of climate change and adaptation on the livestock component of mixed farming systems: A modelling study from semi-arid Zimbabwe, Agricultural Systems, Vol.159, pp.282-295. http://doi.org/10.1016/j.agsy.2017.05.004
2017	N. Zinyengere, **O. Crespo**, 2017. Assessing Local Impacts of Climate Change on Crop Production in Southern Africa: Critiquing an Approach. Chapter 2 in: N. Zinyengere, T.F. Theodory, M. Gebreyes, C.I. Speranza (Eds.), BEYOND AGRICULTURAL IMPACTS - Multiple Perspectives on Climate Change and Agriculture in Africa. Academic Press, Elsevier 13-38. https://doi.org/10.1016/B978-0-12-812624-0.00002-8 A.N. Somanje, **O. Crespo**, N. Zinyengere, 2017. Conservation Agriculture Among Farmers in Kalomo, Zambia: Potential for Productivity Under Climate Change. Chapter 5 in: N. Zinyengere,

	T.F. Theodory, M. Gebreyes, C.I. Speranza (Eds.), BEYOND AGRICULTURAL IMPACTS - Multiple Perspectives on Climate Change and Agriculture in Africa. Academic Press, Elsevier. https://doi.org/10.1016/B978-0-12-812624-0.00005-3 P. Masikati, S. Homann Kee-Tui, K. Descheemaeker, G. Sisito, T. Senda, **O. Crespo**, N. Nhamo, 2017. Integrated Assessment of Crop–Livestock Production Systems Beyond Biophysical Methods: Role of Systems Simulation Models. In: Nhamo, N., Chikoye, D., Gondwe, T. (Eds.), Smart Technologies for Sustainable Smallholder Agriculture: Upscaling in Developing Countries. Academic Press, Elsevier. https://doi.org/10.1016/B978-0-12-810521-4.00013-X PA. Williams, **O. Crespo**, C. J. Atkinson, G. O Essegbey, 2017. Impact of climate variability on pineapple production in Ghana, Agriculture and Food Security, Vol.6, art.26. http://doi.org/10.1186/s40066-017-0104-x
2016	M. Ncube, N. Madubula, H. Ngwenya, N. Zinyengere, L. Zhou, J. Francis, T. Mthunzi, **O. Crespo**, T. Madzivhandila. Climate change, household vulnerability and smart agriculture: The case of two South African provinces, Jàmbá: Journal of Disaster Risk Studies, 2016, Vol.8 (2), art.a182 http://dx.doi.org/ 10.4102/jamba.v8i2.182 J.A. Araujo, B.J. Abiodun, **O. Crespo**, 2016. Impacts of drought on grape yields in Western Cape, South Africa. Theoretical and Applied Climatology, Vol.123(1–2), pp.117–130. http://doi.org/10.1007/s00704-014-1336-3
2015	P. Masikati, S. Homann-KeeTui, K. Descheemaeker, **O. Crespo**, S. Walker, C. Lennard, L. Claessens, A. Gama, S. Famba, and A. van Rooyen, 2015. Crop-Livestock Intensification in the Face of Climate Change: Exploring Opportunities to Reduce Risk and Increase Resilience in Southern Africa by Using an Integrated Multi-modeling Approach, Part 2, Chapter 5, in: D. Hillel & C. Rosenzweig (Editors). Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments. Imperial College Press (ICP) Series on Climate Change Impacts, Adaptation, and Mitigation - Vol.4. http://dx.doi.org/10.1142/9781783265640_0017 Y. Beletse, W. Durand, C. Nhemachena, **O. Crespo**, W. Tesfuhuney, M. Jones, M. Teweldemedhin, M. Gamedze, P. M. Bonolo, S. Jonas, S. Walker, P. Gwimbi, T. Mpuisang, and D. Cammarano, 2015. Projected Impacts of Climate change Scenarios on the Production of Maize in Southern Africa: An Integrated-assessment Case Study of the Bethlehem District, Central Free State, South Africa, Part 2, Chapter 4, in: D. Hillel & C. Rosenzweig (Editors). Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project Integrated Crop and Economic Assessments. Imperial College Press (ICP) Series on Climate Change Impacts, Adaptation, and Mitigation - Vol.4. http://dx.doi.org/ 10.1142/9781783265640_0016 M.Y. Teweldemedhin, W. Durand, O. Crespo, Y.G. Beletse, C. Nhemachena, 2015. Economic impact of climate change and benefit of adaptations for maize production: Case from Namibia, Zambezi region. Journal of Development and Agricultural Economics, Vol.7(2), pp.61–71. http://doi.org/10.5897/JDAE2014.0605 N. Zinyengere, **O. Crespo**, M. Tadross, S. Hachigonta, 2015. Crop model usefulness in drylands of southern Africa: An application of DSSAT, South African Journal of Plant and Soil, Vol.32(2), pp.95-104. http://dx.doi.org/10.1080/02571862.2015.1006271
2014	N. Zinyengere, **O. Crespo**, S. Hachigonta, M. Tadross, 2014. Local impacts of climate change and agronomic practices on dry land crops in southern Africa, Agriculture, Ecosystems and Environment, Vol.197, pp.1-10. http://dx.doi.org/10.1016/j.agee.2014.07.002
2013	N. Zinyengere, **O. Crespo**, S. Hachigonta, 2013. Crop response to climate change in Southern Africa: A comprehensive review, Global and Planetary Change, Vol.111, pp.118-126.

	http://dx.doi.org/10.1016/j.gloplacha.2013.08.010
2011	**O. Crespo**, S. Hachigonta, M. Tadross, 2011. Sensitivity of southern African maize yields to the definition of sowing dekad in a changing climate, Climatic Change, Vol.106(2), pp.267-283. http://dx.doi.org/10.1007/s10584-010-9924-4 **O. Crespo**, J.É. Bergez, F. Garcia, 2011. P2 hierarchical decomposition procedure: Application to irrigation strategies design. Operational Research, Vol.11(1), pp.19–39. http://doi.org/10.1007/s12351-009-0040-z **O. Crespo**, J.É. Bergez, F. Garcia, 2011. P2q hierarchical decomposition algorithm for quantile optimization: Application to irrigation strategies design. Annals of Operations Research, Vol.190(1), pp.375–387. http://doi.org/10.1007/s10479-008-0503-2
2010	J.É. Bergez, N. Colbach, **O. Crespo**, F. Garcia, M.H. Jeuffroy, E. Justes, C. Loyce, N. Munier-Jolain, W. Sadok, 2010. Designing crop management systems by simulation. European Journal of Agronomy, Vol.32(1), pp.3–9. http://doi.org/10.1016/j.eja.2009.06.001 **O. Crespo**, J.É. Bergez, F. Garcia, 2010. Multiobjective optimization subject to uncertainty: Application to irrigation strategy management. Computers and Electronics in Agriculture, Vol.74(1), pp.145–154. http://doi.org/10.1016/j.compag.2010.07.009
2008	M. Bennour, D. Crestani, **O. Crespo**, 2008. Une méthode d'affectation des ressources humaines aux processus industriels. Journal Européen des Systèmes Automatisés, Vol.42(5), pp.541-577. https://doi.org/10.3166/jesa.42.541-577
2005	M. Bennour, D. Crestani, **O. Crespo**, F. Prunet, 2005. Computer-aided decision for human task allocation with mono- and multi-performance evaluation. International Journal of Production Research, Vol.43(21), pp.4559-4588. https://doi.org/10.1080/00207540500124579

SELECTED OTHER PUBLICATIONS

Reports (Editor)	Amarasingha, R., Marambe, B., Suriyagoda, L., Punyawardena, R., Herath, H., Jayawardena, S., Jayakody, P., Vuolo MR, Fujisawa M, Heureux A, Alvar-Beltran J, Kanamaru H, Manzanas R, Acutis M, **Crespo O**, 2021. Climate change impacts on crops in Sri Lanka. Rome, FAO. https://doi.org/10.4060/cb5152en C. Holleman, F. Rembold, **O. Crespo**, V. Conti, 2020. The impact of climate variability and extremes on agriculture and food security – An analysis of the evidence and case studies. Background paper for The State of Food Security and Nutrition in the World 2018. FAO Agricultural Development Economics Technical Study No. 4. Rome, FAO. https://doi.org/10.4060/cb2415en **O. Crespo**, T.G. Lumsden, 2019. Seamless Forecasting of Rainfall and Temperature for Adaptation of Farming Practices to Climate Variability, Volume 1 – SEASONAL FORECASTS AND SMALLHOLDERS, Water Research Commission, Report No 2496/1/19. http://wrcwebsite.azurewebsites.net/wp-content/uploads/mdocs/2496%20VOL%201.pdf T. Lumsden, F. Morris, **O. Crespo**, 2019. Seamless Forecasting of Rainfall and Temperature for Adaptation of Farming Practices to Climate Variability, Volume 2 – SEAMLESS FORECASTS AND SUGARCANE, Water Research Commission, Report No 2496/2/19. http://wrcwebsite.azurewebsites.net/wp-content/uploads/mdocs/2496%20VOL%202.pdf

Reports (Author)	Johnston, P. A., Oosthuizen, H. J., Schulze, R. E., **Crespo, O.**, Louw, D. B., Tadross, M. A., Waagsaether, K., Arowolo, S. (2016). *Modelling impacts of climate change on selected South African crop farming systems*. Water Research Commission Report Report No 1882/1/16. Zuma-Netshiukhwi, G., Walker, S., **Crespo, O.**, Lumsden, T. G., Ghile, Y. B., & Schulze, R. E. (2012). *Case study applications of weather and climate forecasts*. (T. G. Lumsden & R. E. Schulze, Eds.), Development and applications of rainfall forecasts for agriculturally-related decision making in selected catchments of South Africa. Water Research Commission Report No. TT 538/12. Johnston, P. A., Louw, D. B., **Crespo, O.**, & Lumsden, T. G. (2008). *Quantifying the costs , benefits and risks associated with climate change risk for water resources - planning and management alternatives in the Berg River Catchment Area of the Western Cape Province of South Africa*. In T. Petermann (Ed.), Towards Climate Change Adaptation - Building Adaptive Capacity in Managing African Transboundary River Basins (pp. 175–188). Zschortau, Germany: InWEnt - Internationale Weiterbildung und Entwicklung gGmbH Capacity Building International, Germany.
Briefs	M. Tadross, P. Johnston, **O. Crespo**, 2021. Using climate services in adaptation planning for the agriculture sectors. Briefing Note FAO & UNDP Rome, Italy. N. Zinyengere, **O. Crespo**, S. Hachigonta, L.M. Sibanda, 2013. *Climate Change Adaptation in Southern Africa: Linking science studies and policy decisions to drive evidence-based action*. FANRPAN Policy Brief (Vol. 13).
Working paper	Gama, A. C., Mapemba, L. D., Masikat, P., Tui, S. H., **Crespo, O.**, & Bandason, E. (2014). *Modeling Potential Impacts of Future Climate Change in Mzimba District , Malawi, 2040-2070*. Malawi Strategy Support Program. MW: Washington, D.C.: International Food Policy Research Institute (IFPRI).

SELECTED ORAL PRESENTATIONS

2018	**O. Crespo**, M. Fujisawa, H. Kanamaru (2018). *Nation-wide interdisciplinary assessments of climate change impacts on agriculture for adaptation planning*. 5th International Climate Change Adaptation Conference (Adaptation Futures 2018), 18-21 June 2018, Cape Town, South Africa.
2017	**O. Crespo**, S. Mkuhlani, L. Zhou, J. Francis (2017). *Improving small farms preparedness to climate variability through improved assimilation of seasonal forecasts*. 4th Global Science Conference on Climate Smart Agriculture (Global SC-CSA), 28-30 November 2017, Johannesburg, South Africa. **O.Crespo** (2017). *Climate and Agriculture in southern Africa and the potential need for transformational adaptation*. Conference on Climate Change and Transformational Adaptation in the Agricultural Sector in East and Southern Africa, 18-20 January 2017, Pretoria, South Africa.
2016	**O. Crespo**, S.S. Nangombe, T.Muhwati, P.Masikati, S.Homann-Kee Tui, E.N. Moyo, N. Dumisani, J. Rurinda (2016). *Making climate data useful for decision makers at the local scale*. 6 th AgMIP Global Workshop: Seeking Sustainable Agricultural Solutions (AgMIP6), 28-30 June 2016, Montpellier, France.

15. Professional Referees

Please contact me when/if references are needed.