



CURRICULUM VITAE (CVA)

Part A. PERSONAL INFORMATION

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|----------------|------------|
| CV date | 05/05/2023 |
|----------------|------------|

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|--|---------------------|-------------------------|--|
| First name | Luis | | |
| Family name | Parras Alcántara | | |
| Gender (*) | Male | Birth date (dd/mm/yyyy) | |
| Social Security, Passport, ID number | | | |
| e-mail | luis.parras@uco.es | URL Web | |
| Open Researcher and Contributor ID (ORCID) (*) | 0000-0002-0092-9317 | | |

(*) *Mandatory*

A.1. Current position

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|-------------------|---|----------------|--|
| Position | Senior Lecturer (full-time) | | |
| Initial date | 09/07/2018 | | |
| Institution | University of Córdoba - UCO | | |
| Department/Center | Agricultural Chemistry, Soil Science, and Microbiology | | |
| Country | | Teleph. number | |
| Keywords | Soil carbon, Soil use, Soil management, Soil quality, Soil degradation, Soil erosion, Carbon sinks, Soil health | | |

A.2. Education

| Ph.D., Licensed, Graduate | University/Country | Year |
|---------------------------------|-----------------------|------|
| Licensed in Geological Sciences | University of Granada | 1997 |
| Ph.D. in Environmental Sciences | University of Córdoba | 2001 |

Part B. CV SUMMARY (*max. 5000 characters, including spaces*)

I, Luis Parras Alcántara, began my third cycle studies at the Department of Agricultural Chemistry and Soil Science at the University of Córdoba (Honorary Collaborator 1998-2001; Research Sufficiency 2000; Doctoral Thesis 2001). My research career can be broken down into two periods, between 1998 and 2005 and from 2005. An exclusive dedication to soil mapping characterizes the first period. As of 2005, my research career was reoriented since soil mapping did not provide me with a research curriculum. In 2005, without any material, human or financial support, I set up experimental plots in olive groves, obtaining my first satisfactory results in 2011. I belonged to the Research Group RNM 0147 of the Andalusian Research Plan until May of 2016, the date in which I created a new Research Group, "Sustainable Use and Management of Soils" (SUMAS Research Group) (PAIDI, RNM 922). Since 2008 I have directed 6 Doctoral Theses, 5 DEAS, 11 bachelor's Thesis, 1 Final Degree Project, 5 Final master's projects, 15 Final Degree Projects, and more than 50 Academic Tutorials (Management and Coordination of external practices in companies for students). In the last 8 years, I have been the author of 40 indexed scientific articles (31 in Q1 (Science of the Total Environment, Soil & Tillage Research, Catena, Land Degradation & Development, Journal of Environmental Management, Solid Earth, Agriculture, Ecosystems and Environment ...among other). In addition, I am the author of 4 books and 13 book chapters. I have 65



communications to International and National Congresses, all with proceeding (not included in book chapters). I have participated in 4 European projects, 7 regional projects, and 3 with companies. I am the Principal Investigator of an H2020 project (728003 DIVERFARMING) for 2017-2022. I am a Referee of several international magazines (JCR). I have obtained two research tranches (2008-2013; 2014-2019). I have organized 6 sessions (Conveners) at the European Geosciences Union (EGU) Vienna - Austria, 2014, 2015, 2016 and 2017. In April 2015, I received the "Best investigation poster award 2014" from Soil Science Division - EGU, and in 2002 with the memory of my Doctoral Thesis, I was a Finalist for the Agrarian and Environmental Research Award (2002) by the Institute of Giennenses Studies (Diputación de Jaén), obtaining the publication of my Thesis. I am currently a University Professor since July 2018.

My main lines of research are the assessment of soil quality, the study of organic carbon in soils, the dynamics of organic matter, and the mechanisms involved in the accumulation of organic carbon in the soil, both in agricultural and forest soils. My medium-term objectives are research related to the processes of carbon stabilization in the soil (permanent carbon sinks), the establishment of new practices of new management practices, and biotechnologies for the improvement of soil quality and carbon sequestration.

I am currently a member of the Soil Sciences division of the European Geosciences Union.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications

- 1. Scientific paper.** Aguilera-Huertas, J., **Parras-Alcántara, L.**, González-Rosado, M., Lozano-García, B., 2022. Medium-term evaluation of the 4‰ initiative, soil organic carbon storage and stabilisation in a Mediterranean rainfed olive grove under conventional tillage: A case study. *Environmental Research* 215 (2022) 114382. <https://dx.doi.org/10.1016/j.envres.2022.114382>
- 2. Scientific paper.** González-Rosado, M., **Parras-Alcántara, L.**, Aguilera-Huertas, J., Lozano-García, B., 2021. Soil Productivity Degradation in a Long-Term Eroded Olive Orchard under Semiarid Mediterranean Conditions. *Agronomy*. 2021, 11 (4) , 812. <https://dx.doi.org/10.3390/agronomy11040812>.
- 3. Scientific paper.** Lozano-García, B., Francaviglia, R., Renzi, G., Doro, L., Ledda, L., Benítez, C., González-Rosado, M., **Parras-Alcántara, L.**, 2020. Land use change effects on soil organic carbon store. An opportunity to soils regeneration in Mediterranean areas: Implications in the 4p1000 notion. *Ecological Indicators* 119. <https://dx.doi.org/10.1016/j.ecolind.2020.106831>
- 4. Scientific paper.** González-Rosado, M., **Parras-Alcántara, L.**, Aguilera-Huertas, J., Benítez, C., Lozano-García, B., 2020. Effects of land management change on soil aggregates and organic carbon in Mediterranean olive groves. *Catena* 195. <https://dx.doi.org/10.1016/j.catena.2020.104840>
- 5. Scientific paper.** Olaya-Abril, A., **Parras-Alcántara, L.**, Lozano-García, B., Obregón-Romero, R., 2017. Soil organic carbon distribution in Mediterranean areas under a climate change scenario via multiple linear regression analysis. *Science of the Total Environment*, 592; 134–143. <http://dx.doi.org/10.1016/j.scitotenv.2017.03.021>
- 6. Scientific paper.** **Parras-Alcántara, L.**, Lozano-García, B., Keesstra, S., Cerdà, A., Brevik, E.C., 2016. Long-term effects of soil management on ecosystem services and soil loss estimation in olive grove top soils. *Science of the Total Environment*, 571; 498–506. <http://dx.doi.org/10.1016/j.scitotenv.2016.07.016>
- 7. Scientific paper.** **Parras-Alcántara, L.**, Díaz-Jaimes, L., Lozano-García, B., 2015. Organic farming affects C and N in soils under olive groves in Mediterranean areas. *Land Degradation & Development*, 26; 800-806. <http://dx.doi.org/10.1002/ldr.2231>
- 8. Scientific paper.** **Parras-Alcántara, L.**, Lozano-García, B., Brevik, E.C., Cerdà, A., 2015. Soil organic carbon stocks assessment in Mediterranean natural areas: A comparison of entire soil profiles and soil control sections. *Journal of Environmental Management*, 155; 219-228. <http://dx.doi.org/10.1016/j.jenvman.2015.03.039>
- 9. Scientific paper.** **Parras-Alcántara, L.**, Lozano-García, B., 2014. Conventional tillage versus organic farming in relation to soil organic carbon stock in olive groves in Mediterranean rangelands (southern Spain). *Solid Earth*, 5; 299-311. <http://dx.doi.org/10.5194/se-5-299-2014>



10. Scientific paper. Parras-Alcántara, L., Martín-Carrillo, M., Lozano-García, B., 2013. Impacts of land use change in soil carbon and nitrogen in a Mediterranean agricultural area (Southern Spain). *Solid Earth*, 4; 167-177. <http://dx.doi.org/10.5194/se-4-167-2013>.

C.2. Congress

More than 50 contributions in International Congresses since 2013, and 15 contributions from 2001 until 2013, all with proceeding. I have organized 6 sessions (Conveners) at the European Geosciences Union (EGU) Vienna - Austria, 2014, 2015, 2016, and 2017.

C.3. Research projects

1. Project H2020 RUR-06-2016-728003 DIVERFARMING (Diverfarming-Crop diversification and low-input farming across Europe: from practitioners' engagement and ecosystems services to increasing revenues and chain organization). 23 partners coordinated by the Polytechnic University of Cartagena (Spain). From 01/05/2017 to 04/30/2022. € 462,998.75 (UCO). € 10,000,000 total from the consortium. IP of the UCO: Beatriz Lozano García and Luis Parras Alcántara.

2. RECARE FP7-603498 (FP7 de la UE). RECARE (Preventing and Remediating degradation of soils in Europe through Land Care). EU. 250 Participating Entities and 22 Associated Entities, Coordinated by the University of Wageningen (Holland-Netherlands). From: 11/01/2013, until: 01/01/2018 IP: Coen Ritsema. € 5,342,234.

3. Project "SICUREZZA, SOSTENIBILITA' E COMPETITIVITA' DELLE PRODUZIONI AGROALIMENTARI DELLA CAMPANIA (C.A.R.I.N.A.)" CUP B25B09000080007 - BY Campania FSE 2007-2013). Participating entities are the University of Córdoba and the Second University of Naples (Italy). Period 2007-2013. IP Spain: Luis Parras Alcántara, IP Italy: Paolo Pedone. Amount € 23,000.

C.4. Contracts, technological, or transfer merits

1. OTRI (research results transfer office in Spanish) R & D contract (12017270) - Identification of soil units in areas of topographic sheets 925, 862, and 863. From 24/11/2017 to 15/12/2017. IP: Luis Parras Alcántara. € 21700.

2. External Advisor (Research) for ADIF-RENFE in the work "Environmental Advice to the environmental and construction management of the LAV (HIGH-SPEED LINE) Murcia-Almería", carrying out: "The Identification of Soils of the Iberian Southeast and definition of environmental conditions of edaphic character to the layout of the Murcia-Almería LAV (Section Vera-Garrafillos) 2012. Department of Environment, University of Cordoba IP: Antonio Jesús González Barrios, Amount € 35,000.

3. Project of Restoration, for the Extraction of Resources of Section C. Ornamental Granite, in the exploitation concession "Paredes, nº 4928-1" of two mining grids in Leiro (Ourense). 2012. Levante-natural stone company multinational. IP: Adolfo Pimentel Cañestro. Amount € 13,000.

C.5. Stays in Research Centers

1. National University of Rio Cuarto. Soil Area of the Dept. of Geology of the Fac. Of Exact Physical-Chemical and Natural Sciences. Rio Cuarto, Cordoba, Argentina. Periods of 1 month during 2006, 2007 and 2008, 2010, 2011, 2012. Study of Carbon in the Soil. Research (Environmental indicators of soil degradation, with particular reference to soil organic carbon)

2. Institute for Research and Training in Agriculture and Fisheries. Ifapa Las Torres - Tomejil. Ecological Production and Natural Resources Area. Junta de Andalucía. Sevilla Spain. From: 06/01/2008, to: 09/30/2008. Study the soil solution's seasonal evolution and its evaluation based on its typology and aptitude for production, water consumption, and susceptibility to erosion.



3. Soil Erosion and Degradation Research Group of the University of Valencia. From: 07/01/2014, to: 08/31/2014. Determination of the differences in organic matter content in soils and the causes of their changes with special reference to human action.

4. Environmental Management Center. Mykolo Romerio Universitetas. Vilnius-Lithuania. From: 06/01/2013, to: 07/31/2013. Determination of soil organic matter in burned areas.

C.6. Direction of doctoral Thesis

1. Manuel González Rosado. **Olive grove management practices, effects on soil properties, and influence on carbon storage and sequestration (2021).**

2. María Luisa Fernández Romero. **Efectos en el carbono orgánico del suelo en función del manejo, del uso y de las variables geográficas en climas Mediterráneo y Templado (2016).**

3. María Rocío Corral Fernández. **Capacidad de uso y evaluación de suelos para distintos usos forestales mediante SIG en el Valle de los Pedroches (Córdoba) (2016).**

4. Marcelino Martín Carrillo. **Efectos de la capacidad de uso en la calidad de los suelos en la Denominación de Origen Montilla-Moriles (2015).**

5. Luisa Amparo Díaz Jaimes. **Bases agroecológicas en la evaluación del potencial de sumidero de carbono de los suelos de la comarca de los Pedroches bajo sistemas de producción ecológicas y convencionales (2014).**

6. Beatriz Lozano García. **Estudio del comportamiento hídrico en ZNS (Zona No Saturada) de un vertisol del valle medio del Guadalquivir (2008).**

C.7. Academic responsibility and management

1. **Principal Investigator** in the H2020 DIVERFARMING project (H2020 RUR-06-2016-728003)

2. **Secretary of the Department** of Agricultural Chemistry and Soil Science of the UCO (2011-2014).

3. **Member of the Faculty Board** (2004-2009).

4. **Member of the Commission of the Environmental Degree Study Plan** (2008-2009).

5. **Member of the cloister of the University of Córdoba** (2014-2018).

6. **Academic adviser of more than 60 students** from 2010-2021.

7. **Responsible for Teaching Group No. 104** of the Quality Plan for University teaching in Córdoba, called "Geology, Management of the physical environment, Planning and Environmental Assessment". From 2007 to the present.

C.8. Teacher evaluation

1. **2 Research section of 6 years** (2008-2013 and 2014-2019)

2. In 2022, the results of the Global Evaluation of the teaching and management work carried out by the UCO (Docentia-Andalucía program) resulted in 79,49 points out of 100 (favorable rating with mention of excellence).

C.9. Scientific journals reviewer

Referee of 10 international journals (JCR): Agriculture, Ecosystems, and Environment (ISSN: 0167-8809); Catena (ISSN: 0341-8162); Land Degradation & Development (ISSN: 1085-3278); Soil Tillage and Research (ISSN: 0167-1987); Archives of Agronomy and Soil Science (ISSN: 1476-3567); Environments (ISSN 2076-3298); Journal of Environmental Quality (ISSN: 1537-2537); Journal of Environmental Management (ISSN: 0301-4797); Science of the Total Environment (ISSN: 0048-9697).

**PARRAS ALCANTARA
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