

GLOBAL
RESEARCH
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

CROPLANDS RESEARCH GROUP:

Spain, María Rosa Mosquera-Losada



Activities/Accomplishment since last meeting: Conferences

- IX Remedia Workshop, Producción ecológica, sostenibilidad y economía circular frente al cambio climático. Córdoba, España 21-22/04/2022
- XV World Forestry Congress Coex, Seoul, Republic of Korea 02-06/05/2022.
<https://wfc2021korea.org/index.html>
- 6° European Agroforestry Conference EURAF. Nuoro, Italia 16-20/05/2022
- 29th General Meeting of the European Grassland Federation (EGF) Caen, France. 26-30/06/2022
- 5th World Congress on Agroforestry. Québec City, Canada. July 17th-20th, 2022
- 2nd International Symposium on Climate-Resilient Agri-Environmental Systems (ISCRAES 2022). Dublin, Ireland. 28-31 August 2022
- XXI International N Workshop Publicación: Madrid, España Data: 23-28 October 2022
- 61° IALB|11° EUFRAS|8° SEASN CONGRESO INTERNACIONAL 2022 GALICIA El camino de la transferencia del conocimiento e innovación a través de la extensión hacia el desarrollo rural sostenible. EL CONGRESO INTERNACIONAL DE LA EXTENSIÓN RURAL EUROPEA 21-25/06/2022 LUGO (Galicia)
- EU Greenweek. Bioeconomy and policies

Activities/Accomplishment since last meeting: meetings

- eip-agri Porto EU CAP Network Seminar ‘Smart circular farming to address high energy and fertiliser prices’ Porto, Portugal | Tuesday 6 - Wednesday 7 December 2022
<https://ec.europa.eu/eip/agriculture/en/event/eu-cap-network-seminar-%E2%80%98smart-circular-farming%27>
- .- María Rosa Mosquera facilitated the working group on “Agroecology, agroforestry and multipurpose forests”, 15 June 2022, Final event of ROSEWOOD 4.0, Barcelona, European Forest Institute (EFI).
- FORESTVALUE. Madrid 28-29 September 2022

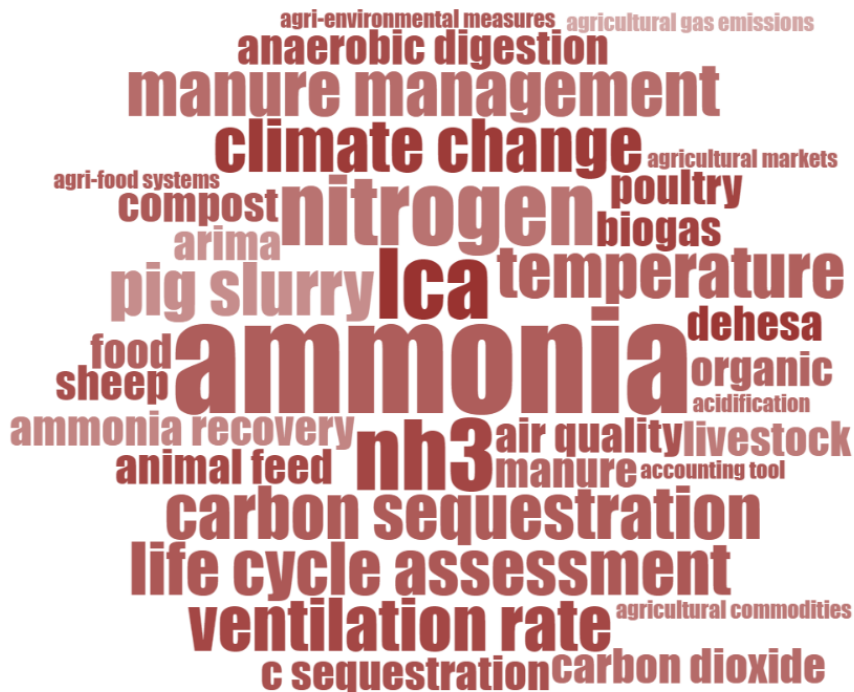
BIBLIOMETRIC STUDY

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2012-2022

2022



Most frequent words in scientific publications on “emissions + livestock”. Extraction of the 50 most frequent author's keywords. On the right, is the analysis of the most frequent words for 2012-2022, and on the left is the analysis of the most frequent words in 2022.

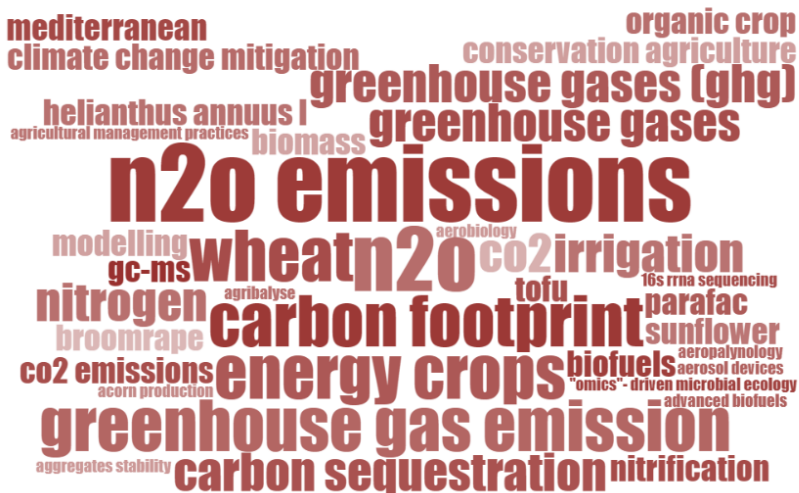
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2012-2022

2022



Most frequent words in scientific publications on “emissions+ crop”. Extraction of the 50 most frequent author's keywords. On the right, it is the analysis of the most frequent words for 2012-2022, and on the left is the analysis of the most frequent words in 2022.

Publications

Reviews

Berta Gonçalves, Maria Cristina Morais, Sandra Pereira, María Rosa Mosquera-Losada, Mário Gabriel Santiago Santos (2021) **Tree-crop ecological and physiological interactions** within climate change contexts: a mini-review. *Frontiers in Ecology and Evolution*, section Models in Ecology and Evolution. <https://doi.org/10.3389/fevo.2021.661978>

Santos M, Cajaiba RL, Bastos R, Gonzalez D, Petrescu Bakış A-L, Ferreira D, Leote P, Barreto da Silva W, Cabral JA, Gonçalves B and Mosquera-Losada MR (2022) Why Do **Agroforestry Systems Enhance Biodiversity?** Evidence From Habitat Amount Hypothesis Predictions. *Front. Ecol. Evol.* 9:630151. doi: 10.3389/fevo.2021.630151

Damianidis, C., Santiago-Freijanes, J.J., den Herder, M. et al. Agroforestry as a sustainable land use option to reduce **wildfires risk** in European Mediterranean areas. *Agroforest Syst* 95, 919–929 (2021). <https://doi.org.ezbusc.usc.gal/10.1007/s10457-020-00482-w>

Rolo V, Roces-Diaz V, Torralba M, Kay S, Fagerholme B, Aviron F, Burgess O, Crous-Duran J, Ferreira-Dominguez N, Graves A, Hartel T, Mantzanas K, Mosquera-Losada MR, Palma J, Sidiropouloul A, Szerencsits E, Viaudm V, Herzog F, Plieninger T, Moreno G 2021. **Mixtures of forest and agroforestry alleviate trade-offs between ecosystem services** in European rural landscapes. *Ecosystem Service* 50, 101318.

Publications

Land management

Alvarez-Lopez V, Lado-Liñares M, Lamas A, Vázquez B and Mosquera-Losada R. (2022) **Circularity and biofertilizers use in Agroforestry systems: impact on soil health**. Applied soil ecology (accepted)

Ferreiro-Domínguez N, Rigueiro-Rodríguez A, Mosquera-Losada MR (2022) **Modelling Pinus radiata D. Don growth and pasture production under different land uses and climate scenarios**. Frontiers in Ecology and Evolution (Accepted)

Soil carbon stocks

N. Ferreiro-Domínguez, J.H.N. Palma, J.A. Paulo, A. Rigueiro-Rodríguez, M.R. Mosquera-Losada (2022) **Assessment of soil carbon storage in three land use types of a semi-arid ecosystem in South Portugal**, CATENA, 213, ISSN 0341-8162, <https://doi.org/10.1016/j.catena.2022.106196>.

Ferreiro-Domínguez, Nuria, Francisco Javier Rodríguez-Rigueiro, Antonio Rigueiro-Rodríguez, María Pilar González-Hernández, and María Rosa Mosquera-Losada (2022) **Climate Change and Silvopasture: The Potential of the Tree and Weather to Modify Soil Carbon Balance**. Sustainability 14, no. 7: 4270. <https://doi.org/10.3390/su14074270>

Chowdhury, Sangita, José Manjón-Cabeza, Mercedes Ibáñez, Christian Mestre, Maria José Broncano, María Rosa Mosquera-Losada, Josefina Plaixats, and M.-Teresa Sebastià (2022) Responses in Soil Carbon and Nitrogen Fractionation after **Prescribed Burning in the Montseny Biosphere Reserve** (NE Iberian Peninsula) *Sustainability* 14, no. 7: 4232. <https://doi.org/10.3390/su14074232>

Publications

Policies

María Rosa Mosquera-Losada, Francico Javier Rodríguez-Rigueiro, José Javier Santiago-Freijanes, Antonio Rigueiro-Rodríguez, Pablo Silva-Losada, Anastasia Pantera, Juan Luis Fernández-Lorenzo, María Pilar González-Hernández, Rosa Romero-Franco, José Antonio Aldrey-Vázquez, Nuria Ferreiro-Domínguez (2022) **European agroforestry policy promotion in arable Mediterranean areas**, Land Use Policy, Volume 120, 106274, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2022.106274>

Santiago-Freijanes, JJ, Mosquera-Losada MR, Rois-Díaz M et al. **Global and European policies to foster agricultural sustainability: agroforestry**. Agroforest Syst 95, 775–790 (2021). <https://doi-org.ezbusc.usc.gal/10.1007/s10457-018-0215-9>

Rodríguez-Rigueiro FJ, Santiago-Freijanes JJ, Mosquera-Losada MR, Castro M, Silva-Losada P, Pisanelli A, et al. (2021) **Silvopasture policy promotion in European Mediterranean areas**. PLoS ONE 16(1): e0245846. <https://doi.org/10.1371/journal.pone.0245846>

Business environment and carbon farming:

Orozco, R.; Mosquera-Losada, M.R.; Rodriguez, J.; Adamseged, M.E.; Grundmann, P. 2021 **Supportive Business Environments to Develop Grass Bioeconomy in Europe**. 2021 Sustainability 2021, 13, 12629. <https://doi.org/10.3390/su132212629>

Publications

Participative research

Feo, E., Spanoghe, P., Berckmoes, E., Pascal E., Mosquera-Losada, R., Opdebeeck, A., Burssens, S. (2022) The **multi-actor approach** in thematic networks for agriculture and forestry innovation. *Agric Econ* 10, 3 (2022).

Bioeconomy

A.M. Freitas, V. D. Nair, W. G. Harris, M. R. Mosquera-Losada, N. Ferreiro-Domínguez (2022) **Pyrolysis-induced phosphorus transformations** for biosolids from diverse sources. *Journal of Environmental Quality* (Accepted)

Research and Capability

- *Research Opportunities: – identify research opportunities related to mitigation co-benefits for the CRG and Networks to raise during the discussion session*
 1. Priority topic 1: Carbon farming practices development and promotion by using multi-actor approach technologies
 2. Priority topic 2: Soil carbon sequestration enhancement and monitoring.
 3. Priority topic 3: Biodiversity use through agroecology practices
- *Capability Opportunities: – identify upcoming workshops and training or projects with potential for students/stakeholders*
 1. AF4EU (agroforestry and value chains)
 2. AFCLIMA-DEMO, GO-FOREST, GO-GRASS, (business environment analysis)
 3. OPER8, GOODs (reducing herbicides use)
 4. AE4EU: (defining agroecology, living labs and policies)

Activities/Accomplishment since last meeting

- *Preparation of the **Agroforestry flagship***

Forthcoming events (Newsletter)

4th Agriculture and Climate Change Conference

The 4th Agriculture and Climate Change Conference will be held in Dresden, Germany, during **7th – 9th May 2023**. More information [here](#).

XXV International Grassland Congress

The XXV International Grassland Congress will be held in Kentucky, USA during **14th – 19th May 2023**. More information [here](#).



5th World
Congress on
Agroforestry
Transitioning to
a Viable World



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AF4EU



AE4EU

AGROECOLOGY FOR EUROPE

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Oper8

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