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Technosols produced with sediments from Mediterranean aquaculture for the cultivation of halophyte *Limonium algarvense*

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The Technosols are constituted by anthropogenic parent materials that can be natural or technogenic (IUSS Working Group, 2014). In the last years, the Mediterranean aquaculture (farming of marine organisms, Grigorakis and Rigos, 2011) has been established mainly in abandoned or inactive coastal salt production areas (Rosa et al., 2012). In that activity is necessary to remove the sediments from de ponds to improve the quality of water (Thunjai et al., 2004). However, these sediments may contain high salt burden as well as hazardous elements so their deposition on productive soil can lead to a degradation of soil properties and consequently local biodiversity (fauna and flora) reduction (Yuvanatemiya and Boyd, 2006). Halophytes are salt tolerant plants able to grow under high salinity concentrations (Flowers and Colmer, 2008). Their cultivation in Technosols made with sediments from aquaculture pond can be a valorization of these materials. The species *Limonium algarvense* Erben is a halophyte whose infusions and decoctions of flowers has an antioxidant activity as high as the green tea and can be considered a potential functional beverage due to its proprieties (Rodrigues et al., 2016). The aim of this work is to test the utilization of Technosols produced with sediments from Mediterranean aquaculture ponds and organic wastes as amendments in the *L. algarvense* cultivation and to assess the different rates of amendments application using brackish and deionized water irrigation.

Biography

Ana Lucia Teixeira Cortinhas holds a master's degree in Biodiversity: Conservation and Evolution, specialization in Biodiversity and Plant Conservation, at the University of Valencia, Spain. She is interested in uses and cultivation of halophytes, salt tolerance and functional food. She did the master thesis on halophytes species - "Taxonomic study of Limonium vulgare and related species in salt marshes of Portugal Continental". Later, she participated in other research projects focused on halophytes such as "Cultivation of halophyte *Limonium algarvense* using saline water and amended underused sediments" at LEAF- Linking Landscape, Environment, Agriculture and Food, University of Lisbon, Portugal. Currently, she holds an FCT grant (SFRH/BD/130256/2017) to develop her PhD project "XtremeVeggies – Edible Halophyte Cultivation using Saline Water and Amended Underused Soils and Sediments" at LEAF, University of Lisbon, Portugal.

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