

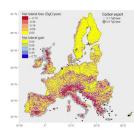
JOINT RESEARCH CENTRE

EUROPEAN SOIL DATA CENTRE (ESDAC)

ESDAC: http://esdac.jrc.ec.europa.eu EUSO/ESDAC Newsletter No 161 (January 2024)

Soil organic carbon losses with lateral transfer to the oceans

A spatially distributed model coupling erosion, transport, and deposition to the carbon cycle was developed and published in this relevant paper. Then, it was used to simulate the impact of Cover Crops (CC) on both erosion and carbon, to show that cover crops can simultaneously increase organic carbon storage and reduce particulate organic carbon export to the oceans. The same study focused on the increase in SOC storage and the export of particulate organic carbon (POC) to the oceans, compiling a continental-scale carbon budget. The results indicated that Europe exported 1.95 TqC/year of POC to the oceans in the last decade. Results show that CC adoption can reduce the annual export while increasing SOC storage. In a scenario of widespread adoption, CCs alone are insufficient to achieve the 4‰ target. Download the data:



https://esdac.irc.ec.europa.eu/content/soil-organic-carbon-losses-lateral-transfer-oceans

Presentations and recordings of the 3rd EUSO Stakeholder forum

The EUSO convened its 3rd Stakeholder Forum, an annual event organised by the Joint Research Centre (JRC) whose purpose is to actively engage and exchange with the soil community, from policy makers and scientists to local actors, civil society representatives and citizens. The forum was an mind EUSO Stakeholders F opportunity for anyone interested in soils to update and exchange on various themes including latest developments in soil policy, state of soil science, new and ongoing soil research projects as well as methods to assess soil health in the EU. The forum took place in two phases: a) 15-17 November 2023 (online) with six Technical Working Groups (TWGs) organizing sessions on soil pollution, soil data sharing, soil monitoring, soil erosion, soil carbon and soil biodiversity. More than 700 participants attended the 65 presentations; and b) 21-23 November 2023, The European Soil Mission Week in Madrid, in which also the findings of the TWGs were reported. Presentations and recordings: https://esdac.jrc.ec.europa.eu/euso/third-euso-stakeholders-forum



European Carbon Farming Summit

The European Carbon Farming Summit will support high-level conversations to shape up robust carbon farming markets and policies. It will represent a space for sharing knowledge and experiences, upscaling solutions and enabling the multiplication of climate actions across the EU. The Summit will provide a space for the sector to agree on best mechanics to scale robust climate actions. **Venue**: Valencia (Spain), 5-7 March https://www.carbonfarmingsummit.eu/



ESA symposium on earth observation and soil protection

The ESA Symposium will assess the usability of Earth Observation (EO) technologies for soil protection, evaluate the WORLDSOILS SOC, gather evolution requirements of EO based soil monitoring systems, contribute to the Land Degradation Monitoring and showcase the capacity of satellite remote sensing, alone or combined, for monitoring, validating, reporting or verifying of other specific soil components. **Venue**: Frascati (Italy), Italy 6-7 March



https://www.eo4soilprotection.org/

4th International Soil Modeling Consortium Conference

The 4th ISMC Conference is a science symposium that aims to integrate and advance soil system modeling with Earth system science. The conference will address integration of soil modelling expertise in neighboring disciplines (climate, land surface, eco, hydro, and other models) and major scientific gaps in describing key processes and their long term impacts with respect to the different functions and ecosystem services provided by soil. **Venue**: Tianjin (China), 7-10 May. More info: https://soil-modeling.org/



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