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Aims & scope

The EGU General Assembly 2025 brings together geoscientists from all over the world to one meeting covering all disciplines of the Earth, planetary, and space sciences. The EGU aims to provide a forum where scientists, especially early career researchers, can present their work and discuss their ideas with experts in all fields of geoscience.

Updates

06 Jan 2025

January Update: EGU25 abstract submission closing soon!!

The EGU25 call for abstracts will close on 15 January, 13:00 CET, so ensure you have your login credentials ready and SUBMIT TODAY! Read our January Update in detail to get a head start on preparing for your EGU General Assembly in 2025, to be held 27 April–2 May, in Vienna and online. »



02 Dec 2024

December Update: EGU25 abstract submission deadline is approaching!!

The EGU25 call for abstracts is open, so ensure you submit your abstract by 15 January, 13:00 CET! Read our December Update in detail to get a head start on preparing for your EGU General Assembly in 2025, to be held 27 April–2 May, in Vienna and online. »

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EDI 

Organic farming, Soil management and Healthy food

Convener: Marta María Moreno Valencia  | Co-conveners: Maria Vincenza Chiriaco, Jaime Villena ^{ECS}

Organic farming is based on the natural cycles of energy and nutrients, and relies on the use of crop rotations, crop residues, compost and green manure. The International Federation of Organic Agriculture Movements (IFOAM) agrees to define the “Organic agriculture as a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects”.

This Scientific Session invites you to contribute with your experience in organic farming in relation to soil changes (biota, water, mineral and organic matter, erosion), soil productivity, plant protection, healthy food, food quality or socio-economic aspects. Studies focused on optimal energy efficiency, carbon and water footprint (with an emphasis in green and grey water), greenhouse gasses (GHG) and soil nutrient balancing as indicators of sustainable agricultural practices, are also welcomed. Research conducted on different continents will be shown in order to know the sustainability of organic agriculture under different environmental, social and economic conditions. All these studies could provide robust scientific basis for governmental agricultural policies development and decision tools for stakeholders.

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#EGU25



Pilot scale silage production from olive pomace

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Massive amounts of waste and byproducts are produced annually by the food and agricultural industries and are disposed of in adjacent open fields, endangering the environment. The circular economy suggests using food leftovers for beneficial uses such as animal feed. Using less common animal feeds derived from leftovers could provide farmers with a variety of environmentally friendly feeding options. Ruminants feeding with by-products would increase the milk output and, at the same time reduce the need for green plants (straw) in the ensiling procedure and the feeding cost. A form of animal feed known as silage is created from green foliage crops that have been preserved by fermenting them to produce acids. It is usually made from grass crops like maize, sorghum, or other cereals. Olive mills are a promising by-product that can be added instead of other materials and produce a high-quality animal feed. Olive pomace was provided by a two-phase olive oil mill and was separated from olive stones. In this study, the silage production at a pilot scale was examined. Approximately 1.2 tons of olive pomace, 0.2 tons of straw, 10 kg molasses, and 2.4 kg urea were used. The material was packed in 20 kg bags and sealed airtight. The pH values were between 4.5 to 5 for the whole year and nitrogen content was about 0.85 g TKN/ kg silage dry matter. The fiber content of silage increased during the ensiling period by about 7 and 17% for NDF and ADF, respectively. In the ensiling process, volatile fatty acids (VFAs) play a critical role in the preservation and stability of the silage. The content of lactic acid increased to 1.6 g/L suggesting that the ensiling process with olive pomace is a promising sustainable option.

keywords: silage; food waste; olive oil pomace; molasses; urea.

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