



LIFE RecOrgFert PLUS

Organic-mineral fertilizers by using recovered sulphur & orange wastes as sustainable soil recovery from desertification



www.life-recorgfertplus.eu



PROJECT

LIFE RecOrgFert PLUS introduces an innovative approach for dried orange peels and recovered Sulphur management. It gives evidence that the combination of organic and mineral components in a unique fertilizer meets the requirements of sustaining crop yield, representing a sustainable substitute of chemical fertilizers.

LIFE RecOrgFert PLUS is for:

- 1) Testing in extended open fields the new type of fertilizer;
- 2) Fine-tuning the scalable and modular industrial pilot line with continuous process production.

TARGET PROBLEM

Climate change and intensive agriculture with extensive use of chemical fertilizers are causing substantial loss of soil fertility, that is: **desertification**. There is an urgent need to recover degraded areas, especially in arid and semi-arid regions where desertification is a major issue. According to the European Environment Agency, 8% of the European territory - about 14 million hectares - already shows some degrees of desertification. The situation is very serious in Southern EU areas: only in Italy more than 1/5 of the territory is at risk or under desertification.

Moreover, **soil salification** is growing exponentially on our planet, especially in arid and semi-arid areas. This is an irreversible phenomenon that erodes agricultural land by the continuing need to produce food and raw materials, through the adoption of unsuitable techniques, that often do not provide a natural or artificial drainage system of the accumulation of salt in the earth. The damaging result for the fields is a decrease in the yield of the land.

PROPOSED SOLUTION

LIFE RecOrgFert PLUS's innovative solution is the recycling of organic-material and the implementation of new business in organic-mineral fertilizers. The innovative solutions are to use the dried orange peels.

The addition of dried orange peels to sulphur and bentonite brings to the pads micro-nutrients essential for plant growth. This can produce a complete organic-mineral fertilizer, opening new markets specifically in Countries where the alkaline and degraded land represent the major problem.

OBJECTIVES



Turning dried orange peels and recovered sulphur into high-quality innovative organic-mineral fertilizer



Setting-up and correctly sizing the innovative pilot process



Testing the organic-mineral fertilizer positive effect on germination and plant growth



Reducing the GHG emissions and improving soil health



Verifying in a "Life Cycle Approach" the low environmental impact of the new organic mineral fertilizers



Giving an opportunity for economic and social development in Sicily



Demonstrating the business model profitability

PARTNERS



PROJECT DETAILS

PROJECT TITLE: Organic-mineral fertilizers by using recovered sulphur & orange wastes as sustainable soil recovery from desertification

START DATE: 01/09/2021

END DATE: 28/02/2025

TOPIC: Environment and Resource Efficiency

TOTAL LIFE PROJECT: 3,791,715 Euro

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