



Thermochemical Fluids in Greenhouse Farming

Case study: greenhouse of Sfera

Sfera greenhouse is one of the project's case studies, with a Mediterranean climate.

Results achieved with TheGreefa solution have been studied exploiting seasonal input provided by Sfera Agricola. More specifically, for the heating season relevant savings were achieved in terms of oil and wood. The performed Life Cycle Assessment outlines also improvements in terms of human health, ecosystem and resources.

LCA inputs for Sfera's greenhouse

	Standard system	TheGreefa
Heating season	1 year for 1 ha greenhouse	
Electricity	90 330 kWh	99 363 kWh
Oil	34 350 l	27 480 l
Wood	631 t	505 t



Overall, TheGreefa solution well demonstrated results in lowering the environmental impacts in Sfera greenhouse, showing that the heating, cooling and humidity control are the energy intensive processes to be monitored in the greenhouse operation.

Besides the monitoring, the main recommendations are proper actions to lower energy consumption and make the greenhouse operations more efficient through the exploitation of the proposed solution. The latter has positive impact on human health and ecosystem. Furthermore, its adoption allows to reduce direct intervention on the greenhouse infrastructure with economic savings.



TheGreefa project has received funding from the European Union's Horizon 2020 Research and Innovation Program under grant agreement No 101000801.

The sole responsibility of this publication lies with the authors. The European Commission and the Research Executive Agency is not responsible for any use that may be made of the information contained therein.