MARIGREEN

Sustainable utilization of MARIne resources to foster GREEN plant production in Europe

About the Project

The MARIGREEN project will valorise residual materials from the BLUE sector, of which many are currently poorly utilised, by treating them with appropriate technology and applying in agriculture (GREEN sector). Significant amounts of fertilisers applicable in organic growing are required to achieve 25% organic farmland in EU by 2030, as proposed in the F2F strategy. The project will study available residual materials from fish capture, brown algae industry, mussel industry and organic aquaculture. Relevant materials will be provided by five Scandinavian industry partners. The materials will be chemically characterised and compounds with potential biostimulant effects on crop plants will be investigated, while concurrently checking for possible biotoxicity. The chemically profiled effects of these materials on plant growth will be assessed, both in a pre-processing state and after appropriate treatment is applied, e.g. extraction and/or composting. The project also includes an innovative treatment of organic fish waste from aquaculture, which will expedite approval of such materials in growing media. Adjoining the effort is a study on impregnation technology to utilise biochar, which is in itself useful for soil amendment, after impregnation with extracts of BLUE materials as a carrier of nutrients and other valuable compounds into agricultural soil. To proof the concept, promising materials (assessed from chemical characterisation) will be tested in real growing conditions in greenhouse and field. The logistics and related costs required for establishing a relevant value chain for producing fertilisers and/or biostimulants will be assessed by interviewing collaborating industry partners and surveying potential customers. The project will mobilize human resources across national borders to promote researcher skills and competencies and create coherent dissemination actions delineating conditions, interests and potential opportunities in the BLUE and GREEN sectors.



Project Overview

Project Partners:

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Keywords:

BLUE value chain, BLUE biomass, fertilisers, biostimulants, supply systems

Priority Area:

Advancing the supply systems in the blue bioeconomy value chains

