PRACTICE ABSTRACT NO. 33

A Decision Support System framework for using fishery-based bio fertilizers

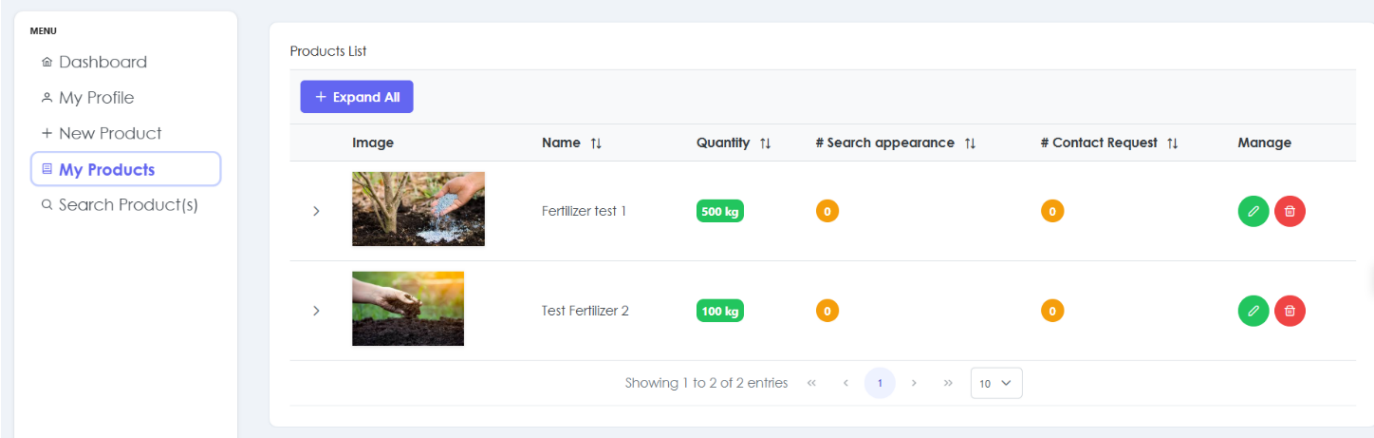
Main results / outcomes

To support more sustainable agricultural practices and improve decision-making in fishery-based bio fertilizers usage, it was developed a web-based Decision Support System (DSS) tailored specifically for the selection of biofertilizers. This platform serves as a practical tool that helps farmers, agronomists, and agricultural advisors choose the most appropriate biofertilizers based on multiple parameters and characteristics of the fertilizers.

The system was designed with ease of use in mind, allowing users to input key data such as fertilization practices. Based on this information, the platform can generate customized recommendations by analyzing a comprehensive database of fishery-based biofertilizers.

To ensure the recommendations are both scientifically grounded and practically applicable, the platform incorporates a robust decision-making engine. This engine assess the suitability of various biofertilizer options, considering multiple factors of the different fertilizers in the database. The results are presented clearly, offering users a ranked list of biofertilizers.

In essence, this platform can become an essential tool in promoting the adoption of biofertilizers, reducing dependency on chemical inputs, and supporting more resilient and environmentally responsible farming systems.



Practical recommendations

This DSS web platform serves as a practical, science-based tool to promote sustainable agriculture by guiding users in selecting the right biofertilizers tailored to their unique farming conditions. Its adoption can lead to improved soil health, reduced dependency on chemical fertilizers, and better crop yields.

Further information

https://sea2land.sid-isq.com/

About this abstract

Authors: André Carvalho, Guilherme Covas, Manuel Carreiras (ISQ)
Date: June 2025

SEA2LAND project is a collaborative Innovation Action(IA) funded by the EU in the frame of the Horizon 2020 programme. The project aims to provide solutions to help overcome challenges related to food production, climate change, and waste reuse. Based on the circular economy model, SEA2LAND promotes the production of large-scale fertilisers in the EU from its own raw materials. This solution is expected to reduce the soil nutrient imbalance in Europe.

The project is running from January 2021 to December 2024.

Website: www.sea2landproject.eu

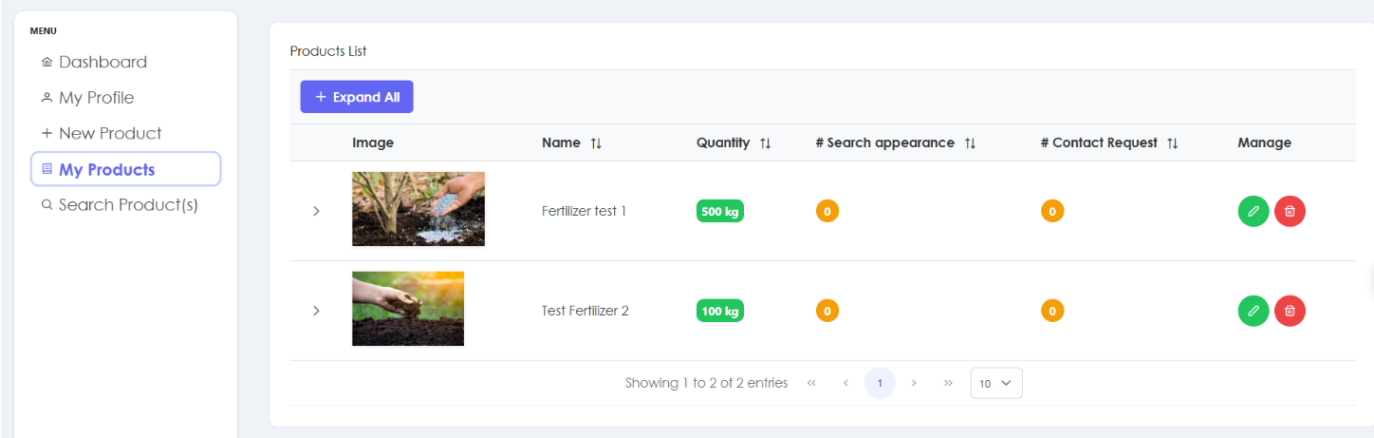
THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO 101000402.
THIS OUTPUT REFLECTS THE VIEWS ONLY OF THE AUTHOR(S), AND THE EUROPEAN UNION CANNOT BE HELD RESPONSIBLE FOR ANY USE WHICH MAY BE MADE OF THE INFORMATION CONTAINED THEREIN

PRACTICE ABSTRACT NO. 33

Uma estrutura de Sistema de Apoio à Decisão para o uso de biofertilizantes à base de produtos da pesca

Principais resultados / conclusões

Para apoyar prácticas agrícolas más sostenibles y mejorar la toma de decisiones en el uso de biofertilizantes derivados de la pesca, se desarrolló un Sistema de Apoyo a la Toma de Decisiones (DSS) basado en la web, diseñado específicamente para la selección de biofertilizantes. Esta plataforma funciona como una herramienta práctica que ayuda a agricultores, agrónomos y asesores agrícolas a elegir los biofertilizantes más adecuados, basándose en múltiples parámetros y características de los fertilizantes.El sistema fue diseñado pensando en la facilidad de uso, permitiendo a los usuarios ingresar datos clave como las prácticas de fertilización. A partir de esta información, la plataforma puede generar recomendaciones personalizadas, analizando una base de datos integral de biofertilizantes de origen pesquero.Para garantizar que las recomendaciones estén científicamente fundamentadas y sean aplicables en la práctica, la plataforma incorpora un motor de toma de decisiones robusto, que evalúa la idoneidad de diversas opciones de biofertilizantes, considerando múltiples factores presentes en la base de datos. Los resultados se presentan de forma clara, ofreciendo a los usuarios una lista clasificada de biofertilizantes.En esencia, esta plataforma puede convertirse en una herramienta esencial para promover la adopción de biofertilizantes, reducir la dependencia de insumos químicos y apoyar sistemas agrícolas más resilientes y respetuosos con el medio ambiente.



Recomendações práticas

Esta plataforma web do DSS funciona como uma ferramenta prática e baseada em evidências científicas para promover a agricultura sustentável, orientando os usuários na seleção dos biofertilizantes mais adequados às suas condições agrícolas específicas. Sua adoção pode levar à melhoria da saúde do solo, redução da dependência de fertilizantes químicos e melhores rendimentos das colheitas.

Informações adicionais

https://sea2land.sid-isq.com/

Sobre este resumo

Authors: André Carvalho, Guilherme Covas, Manuel Carreiras (ISQ)
Date: June 2025
SEA2LAND project is a collaborative Innovation Action(IA) funded by the EU in the frame of the Horizon 2020 programme. The project aims to provide solutions to help overcome challenges related to food production, climate change, and waste reuse. Based on the circular economy model, SEA2LAND promotes the production of large-scale fertilisers in the EU from its own raw materials. This solution is expected to reduce the soil nutrient imbalance in Europe.
The project is running from January 2021 to December 2024.
Website: www.sea2landproject.eu

THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO 101000402.
THIS OUTPUT REFLECTS THE VIEWS ONLY OF THE AUTHOR(S), AND THE EUROPEAN UNION CANNOT BE HELD RESPONSIBLE FOR ANY USE WHICH MAY BE MADE OF THE INFORMATION CONTAINED THEREIN