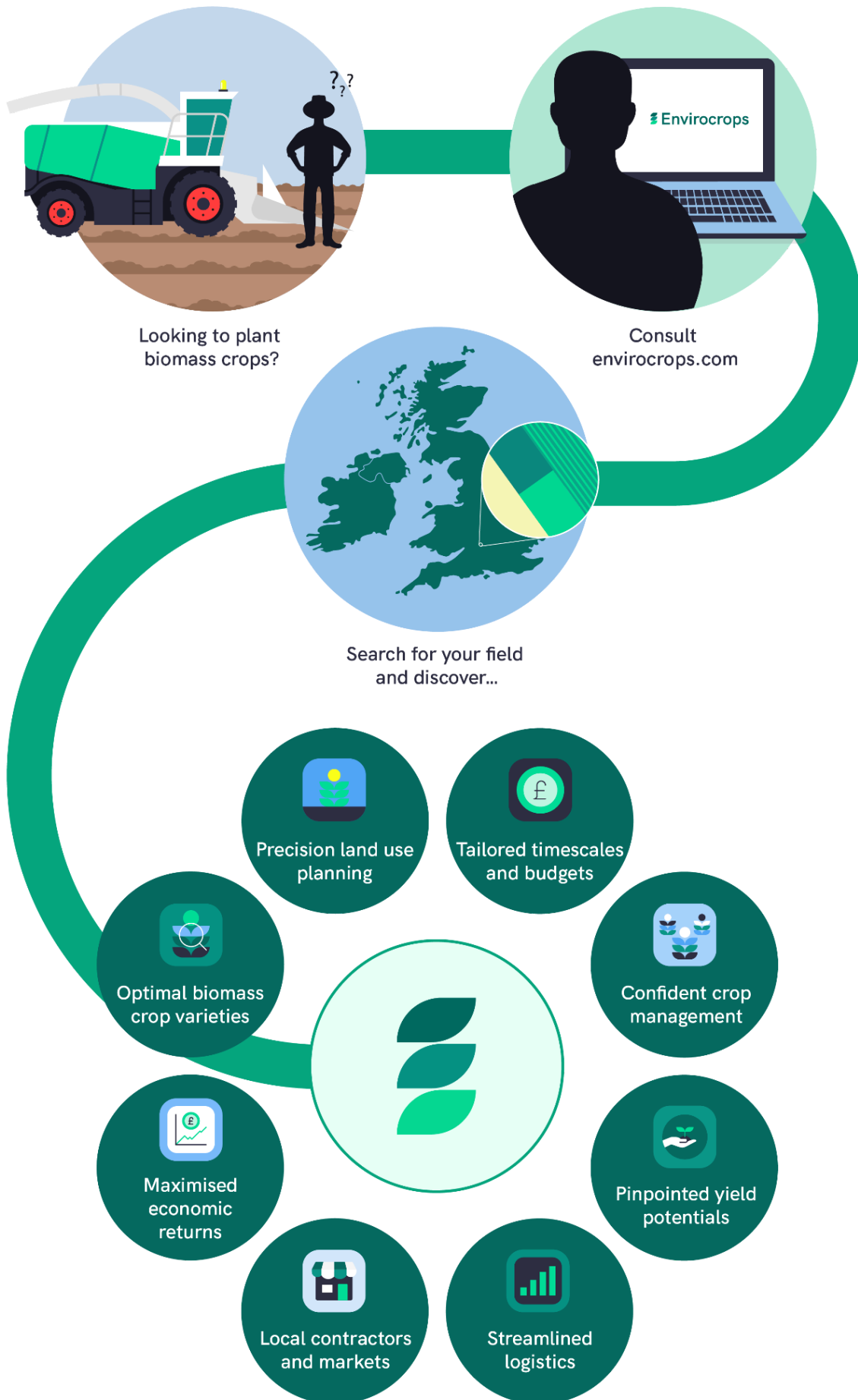




Envirocrops.com Brochure

2025



Introduction

The Envirocrops project, funded by the UK Department for Energy Security and Net Zero (DESNZ), represents a strategic initiative to advance the deployment of sustainable biomass crops as part of the UK's renewable energy and carbon reduction goals. With increasing pressure to transition to cleaner energy sources and reduce dependency on fossil fuels, as well as for direct carbon dioxide removal, the Envirocrops project provides a vital platform to support informed decision-making for the adoption of biomass crops. This initiative focuses on enhancing the environmental and economic viability of biomass as a key resource in achieving net-zero carbon emissions.

Project Overview

The Envirocrops tool is a free, user-friendly web-based application designed to assist farmers, land managers, investors, and policymakers in the cultivation and management of biomass crops such as miscanthus, short rotation coppice (SRC) willow, SRC poplar, short rotation forestry (SRF) eucalyptus, SRF poplar, industrial hemp, reed canary grass (RCG), and switchgrass. By utilising this tool, users can assess the suitability of various biomass crops for their specific land conditions (using postcodes or grid references), including factors such as soil type, topography, and climate. The tool is built around a robust decision-making framework that integrates site-specific data to optimise crop selection and enhance both yield and sustainability outcomes.

The Tool

The Envirocrops tool is a key resource for farmers and landowners exploring biomass crop diversification. It offers:

- **Informed Decision-Making:** Actionable insights on crop yield, costs, and income potential.
- **Maximise Profitability:** Helping users boost productivity while ensuring economic and environmental sustainability.
- **Accessible Knowledge:** Simplifying biomass agriculture for all users.
- **Climate Adaptation:** Strategies to mitigate risks and adjust farming practices.
- **Market Confidence:** A science-backed tool for assessing biomass crop viability.
- **Community Collaboration:** A platform for farmers, researchers, and stakeholders to share best practices.
- **Economic Projections:** Estimating long-term revenue, cost savings, and greenhouse gas (GHG) reductions.
- **Education & Tools:** Gamified learning and user-friendly biomass-related resources.
- **Sustainable Agriculture:** Supporting crop diversification and eco-friendly practices.

- Optimised Biomass Cultivation: Guidance on crop selection for productivity and sustainability.
- UK Renewable Energy Goals: Encouraging homegrown biomass production.
- Net-Zero by 2050: Promoting low-carbon feedstocks for a future bioeconomy.
- Market Growth & Risk Reduction: Boosting confidence in biomass investments.

How Envirocrops.com works

Envirocrops.com provides tailored recommendations by integrating user inputs such as postcode, land characteristics, and intended use (e.g., heating a farm or home, supplying a district heating network, or fuelling a power station) with modelled data on soil, climate, and other key variables. Using historical climate data, crop performance models, and soil analyses, the tool generates projections on crop yields, economic returns, and environmental benefits, enabling data-driven decision-making while minimising investment risks. Its financial modelling features offer cost-benefit analyses, including energy revenue and carbon savings, showcasing biomass as a viable and profitable option. Additionally, the tool connects users with suppliers, contractors, and markets through a dedicated Marketplace and plans to introduce comparisons of crops grown with and without future financial support schemes. Beyond crop selection, Envirocrops provides insights into renewable energy cost savings and incentives such as the Renewable Heat Incentive (RHI), while also modelling environmental benefits like carbon savings and greenhouse gas (GHG) emission reductions. With a comprehensive database of suppliers, industry contacts, and regulatory guidance, the tool supports the full lifecycle of biomass production from crop establishment to end use.

Future outlook

As the UK accelerates its efforts toward a low-carbon economy, tools like Envirocrops aims to play a critical role in scaling the adoption of bioenergy and fossil fuel free products. Continued development of the tool, incorporating real-time data and expanding its scope to new crops and EU / non-EU regions, will further enhance its value to stakeholders. Ultimately, Envirocrops seeks to solidify biomass as a competitive, sustainable resource in the UK's renewable energy and materials portfolio.

Project Collaborators

The Envirocrops project is made of four collaborative partner organisations. The Agri-Food and Biosciences Institute (AFBI), Crops for Energy (C4E), Calvium and National Farmers Union Energy (NFUE). In addition to the core collaborators, a consortium of experts within their fields have been utilised to help shape the Envirocrops web-app into the functional tool that it is.

Funded by DESNZ



Department for
Energy Security
& Net Zero

Project collaborators



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