

Assessing and enhancing farmland biodiversity within the food industry: towards an evidence-based online tool BESS Knowledge Exchange Grant report 2016; Grant code: NE/M000206/1

Aim

This project set out to develop an evidence-based biodiversity module for the Cool Farm Tool, combining an evidence synthesis and assessment method developed at the University of Cambridge (NERC projects NE/F008627/1, ES/H037055/1, NE/K001191/1 and NE/K015419/1) with an existing approach to farm-scale biodiversity assessment agreed by the SAI Platform (<http://www.saiplatform.org/>) and developed by CLM Netherlands.

The Cool Farm Alliance is a not-for-profit enterprise with corporate partners that include some of the largest global food and drink companies: Unilever, Heineken, PepsiCo, and others (www.coolfarmtool.org).

Measure of success

The single measure of project success defined at the outset was that the Cool Farm Alliance (then Cool Farm Institute, renamed during the project) would accept the biodiversity module as part of its on-line suite of tools, and take the steps required to integrate it online with the greenhouse gas calculator and other modules.

Outputs

The project designed a biodiversity metric, with scores for biodiversity management actions weighted according to rigorous evidence assessment.

The metric (a pilot version for temperate Europe only) was launched at the Cool Farm Alliance Annual General Meeting in Oxford, March 2016. The feedback from members and other attendees was overwhelmingly positive.

The basic software has been constructed and is currently being integrated into the online tool, along with the greenhouse gas calculator. The Cool Farm Alliance has invested at least £5,000 directly in this integration process, paying software developers for coding and design. **The project was therefore a resounding success.**

Ongoing developments

Several members of the Cool Farm Alliance, including Kellogg's, ADAS, BASF and Unilever plan to pilot Cool Farm Biodiversity tool with suppliers and farms across Europe.

The 'Stewardship Index for Speciality Crop (SISC: www.stewardshipindex.org) in the USA expressed a strong interest in the approach. SISC is another multi-metric farm sustainability calculator and does not currently have a biodiversity module. Both organisations are planning to collaborate on joint development of future biodiversity versions, for other biomes.

The Nature Conservancy (TNC) funded a project to develop the evidence base and scores to underlie a version of the tool for Mediterranean biomes, with a focus in California. This \$160,000 project was funded directly by TNC, as a catalyst science project. It now employs a post-doc and two temporary research assistants at Cambridge.

The European Commission (Joint Research Centre) is interested in use of the tool to assess potential impacts of greening measures in the current and forthcoming Common Agricultural Policy.