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# Assessing and enhancing farmland biodiversity within the food industry: towards an evidence-based online tool

Caitlin McCormack\*<sup>1</sup>, Carl Van Tonder<sup>2</sup>, Henk Kloen<sup>3</sup>, Lynn Dicks<sup>1</sup>, Richard Heathcote<sup>4</sup>, and Jon Hillier<sup>5,4</sup>

<sup>1</sup>University of Cambridge – United Kingdom

<sup>2</sup>Anthesis Group – United Kingdom

<sup>3</sup>CLM, Netherlands – Netherlands

<sup>4</sup>Cool Farm Alliance – United States

<sup>5</sup>University of Aberdeen – United Kingdom

## Abstract

Agriculture comprises a large proportion of terrestrial habitats so it is critical that it is managed in a way that is beneficial to biodiversity. To ensure management is effective, measures taken by farmers should be those that have been shown to benefit biodiversity in real-farm environments. Decision-support resources to allow farmers and food businesses to do this are typically limited by the challenge of designing generically applicable and evidence-supported metrics with which to conduct farm or regional scale assessments. The Cool Farm Tool, developed by the Cool Farm Alliance is the product of a 6 year multi-sector initiative designed to provide just such capacity for farm-scale greenhouse gas emission assessments. It is supported by major food industry brands including Tesco, Heineken, PepsiCo, Marks & Spencer and Unilever ([www.coolfarmtool.org](http://www.coolfarmtool.org)) and has been used on tens of thousands of farms globally. In this project, we are developing an evidence-based biodiversity assessment module to extend the Cool Farm Tool to include biodiversity. This will incorporate and update an existing user-friendly online tool, the Gaia Biodiversity Yardstick, and offer a simple checklist for growers to evaluate their farm management in terms of its value for biodiversity. Crucially, the updated checklist will be informed by rigorous expert assessment of a database of studies testing the effectiveness of different measures in enhancing farmland biodiversity. Those that have been shown to be effective will be emphasised in scores and guidance notes in the module output, providing information to help tool users improve their biodiversity management. The module will also allow the collation of data from working food supply chains which will be used to explore win:wins and trade-offs between biodiversity and production at a farm and field level.

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\*Speaker