

**On-farm mulit-metric sustainable** agriculture calculator for industry

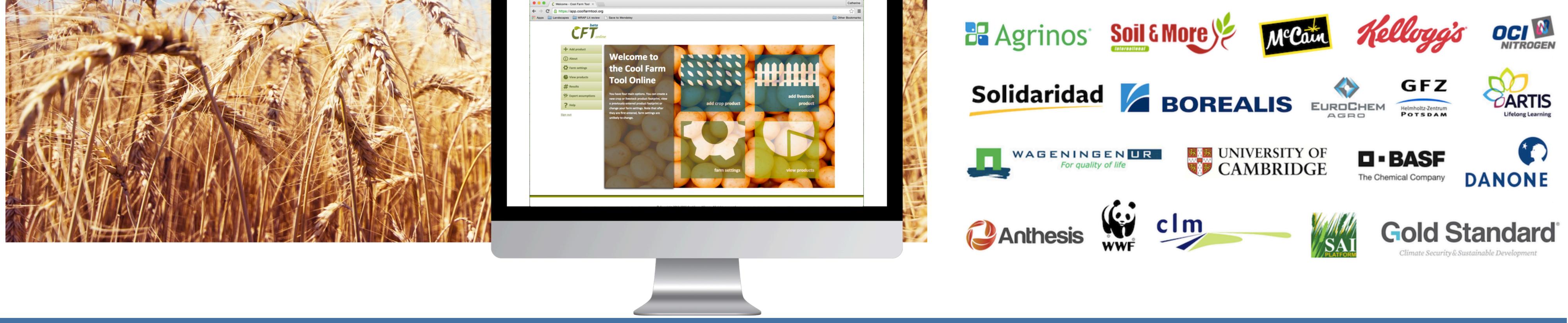
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## Founding Partners









## Tested and adopted widely by industry

Used by over 10,000 farms in 62 countries, all major crops Interactive, management sensitive



## New Developments

A 12-month project to add additional features to existing models for trees, shrubs, herbaceous plants and vines in the Cool Farm Tool, with potential application for bioenergy crops like miscanthus and short rotation coppice. The project adds information on crop residues (quantities and N-content), more native tree specific considerations. The project considers GHGs related to above and below ground biomass, and farm operations. Dr Alicia Ledo at Aberdeen leads the project with Dr Jon Hillier. The categories and grant to prove the project with Dr Jon Hillier. The categories and grant to prove the project with Dr Jon Hillier. The categories and grant to prove the project with Dr Jon Hillier. The categories and grant to prove the project with Dr Jon Hillier. cranberries), tropical trees (oil palm, banana, mango), tropical shrubs: (coffee, tea, cocoa), herbaceous pere sigar cane, miscanthus, strawberries, pineapples), vines (hops, grape vines). Apples and citrus now DONE. Project runs April 2016-April 2017

Features

Farmer

focussed

Global

Crops &

livestock

Improve COMET-Farm and the Cool Farm Tool for quantifying the impacts of land use and management practices on soil C and GHG emissions. Enable the industry to deliver improved storytelling beyond the label and help to identify opportunities to improve both productivity and profitability as well as deliver Soil Carbon on corporate commitments to meet GHG reduction goals. Activities:

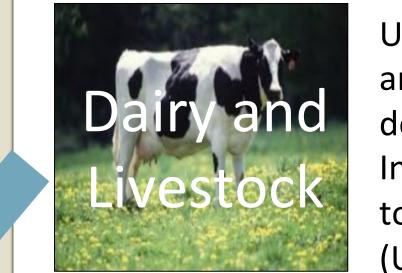
- Synthesize and integrate data on cover crops, organic amendments and management intensive grazing into COMET-Farm and the Cool Farm Tool;
- Engaging diverse stakeholder groups to assess, refine, and test improved decision support systems that reflect realistic management practices Led by Meagan Schipanski and Keith Paustian. Timeframe: 2017-2020



Up-to-date review of the information published in peer-review journals on direct N<sub>2</sub>O emissions from agricultural systems globally. Scientists statistically analyze net-N<sub>2</sub>O-N emissions to JOSTHMATE ANABALOBER UNISEIOSITA OF THE FOR DEFORT OF THE FOR OF THE FORT OF THE FORT OF THE FORT OF THE FOR DEFORT OF T Generalized Additive Mixing Model (GAMM). Led by Drs



The Cool Farm Alliance is building first online water accounting tool, led by Benjamin Kayatz and Martin Wattenbach at GFZ Potsdam that can be used to determine water consumption, the water footprint and



Science

based

Industry

backed

Updated method for all major livestock species. Updated feed emission factors and on-farm cropping practices linked to meat or dairy footprints, new and redesigned user interface, diary scoape, and boundaries in compliance with International Dairy Federation standards. In coordination with leading industry tools. Stakeholders include: CAP 2er (France), Danone, FAO LEAP, Farm Smart (US), FEFAC, International Dairy Federation, PepsiCo, Unilever. Research led by

Jan Peter Lesschen and Oene Oenema Wageningen University. Timeframe Q1 2017

Connected to Farm Management Software through API. AgriCircle – DONE. In conversation with multiple others including SAI Platform's Farmer Sustainability Assessment hosted by ITC. Linking Tool to remote sensing, investigating precision of remotely-sensed data, testing with food chain & carbon market Ongoing..

Emissions from mineral fertilizer production are known to vary between product type, technology, and the operating 6002 efficiency. Production efficiencies vary with geographic location. Emissions factors in the CFT are differentiated into to three regions and soon to be updated to 10: Europe, North

- the soil water balance globally. The tool:
- Works on field level
- Can simulate 25 crops or crop groups.
- Works with minimal farmer data.
- Simulates different irrigation managements and different soil properties. Provide one of the few water footprint with validation. Timeframe Q1 2017



Farm-scale biodiversity assessment that boils complexity into a series of multiple choice questions, scored based on evidence and expert judgment. • Proven user-friendly, using the Gaia Yardstick framework

Each measure thoroughly assessed, grounded in scientific evidence and collective expertise, with the Cambridge expert evidence assessment

Industry supported and endorsed, through incorporation in the Cool Farm Tool This is a joint project between Lypp Dicks at LIEA CLM and Cool Farm Alliance Temperate Ferest available





Software

Asia, Africa, Oceania and Middle East. All calculations on emissions from mineral fertilizers are based on LCA principles, i.e. they include all relevant activities and emissions from raw material supply up to the final product at factory gate. Timeframe Q4 2016

Adding Spanish and at least

one other language.

Timeframe Q1 2017

