

European Commissioner for Energy
Kadri Simson



26 April 2021

Dear Commissioner,

Subject: Arla Foods provides data-based blueprint for EU dairy decarbonisation over next 10 years

Today we are proud to announce that Arla Foods has completed the external validation of its Climate Check programme, a tool to calculate the carbon footprint of our dairy farmer owners. This is a major step towards achieving Arla's climate goal of carbon net zero by 2050 and a 30% reduction by 2030.

In total the Climate Check programme analysed 7,986 Arla farms across six EU countries – Belgium, Denmark, Germany, Luxembourg, the Netherlands and Sweden – and the UK. The data has now been independently validated, a key milestone making our Climate Checks one of the largest externally validated sets of on farm data in the world.

Crucially, the Climate Check has shown that Arla's dairy farmers are among the most climate-efficient farmers in the world with 1.15 kg of CO₂e per kilo of milk including peatlands. The data shows that the best performing Arla farmers are able to produce a kilo of raw milk with a farm level footprint well below 0.9 kg of CO₂e.

It also provides a clear blueprint and action plan for wider decarbonisation of the sector over the next 10 years. More specifically, five "levers" have been identified to accelerate decarbonisation on all of Arla's farms – tripling the speed of current decarbonisation levels – regardless of size, geography, landscape or cow breed.

The five levers are:

- Better feed efficiency to improve milk yield
- Precision feeding to reduce surplus protein in feed rations
- A healthy and long life for the cow to improve milk yield
- Precise fertilizer management to reduce nitrogen surplus from feed production
- Better land use management to ensure better crop yields



The results are a baseline from which Arla will be able to build to meet our climate targets. The data set demonstrates that tangible results can be achieved if precision farming is used in these five key areas. It will be a major asset for Arla farmers to track their decarbonisation efforts and benchmark progress against other farmers including the highest performers.

With Arla farmers producing around 8% of the total European cow milk pool, we believe this will hugely incentivise the EU dairy sector and create a multiplier effect from which further gains can be made.

We are proud of this achievement but recognise that our work is far from over.

As a major industry and farming stakeholder in Europe, Arla remains committed to sharing our expertise and best practices in order to support the EU's climate ambitions and facilitate a smooth transition for Arla's farmers under the Green Deal.

Moving forwards, we urge EU decisionmakers to consider Arla's Climate Check programme as a best practice reference model in the drafting of current and new EU farming legislation. In particular, this would apply to the EU Farm to Fork strategy, the upcoming carbon farming initiative as well as related policy initiatives that promote new green business models, sustainable food production and carbon emissions reductions methodologies for agriculture in the EU.

We would very much welcome the opportunity to share our insights and data we have gathered with you in order to improve our common understanding of the real climate impact of Arla's farmers and European dairy. This will provide us with a vital platform on how we can work together to support the long-term green transition of dairy farmers in the EU.

We are ready to meet this challenge.

I look forward to further dialogue with you in order to support our shared goals. In the meantime you can find out more about our [Climate Check tool online](#) and in the annex attached to this letter.

Yours sincerely,
Arla Foods amba



ANNEX: Arla Climate Check Tool

Arla's Climate Checks is a tool developed for our cooperative farmer owners to enable them to measure and reduce emissions from dairy farming effectively.

Why has Arla created its own Climate Check tool?

Unlike most other dairies, Arla doesn't have farmers in only one regional area. We are a cooperative with farmer owners in seven countries in Northern Europe. A Swedish farm is different from a British or German farm and so is the carbon footprint of the specific feed types, breeds, manure handling systems etc. that are used by our farmers.

None of the open tools available currently have this level of detail that enables us to make a comparable mapping for all our farms. Therefore, we decided to develop a Climate Check tool that is based on the latest science-based and globally recognised approach but also designed to take into account the necessary regional differences that influence the calculations on the individual farm. Furthermore, by having designed our own tool, we can update it on an ongoing basis to align with the latest science on the climate impact of various farming methods and Life Cycle Analysis, which are continuously maturing.

What methodology has Arla used to develop its Climate Check tool?

Arla's Climate Check tool is based on ISO (14044) standards for life cycle assessment and follows the International Dairy Federation (IDF) guidelines on Carbon Footprint methodology, while emissions from animals, manure and soils are based on IPCC (Intergovernmental Panel on Climate Change).

It is developed in collaboration with 2.0-LCA consultants and thoroughly documented at www.lca-net.com. The tool will continuously be aligned with new developments in climate science as well as new developments in farming practices.

How is a Climate Check conducted?

The farmer signs up to a Climate Check and submits data to 203 questions in an online questionnaire. The tool provides a preliminary carbon footprint result which is then validated by an external agricultural climate advisor. The advisor makes a physical visit (during Covid-19 restrictions a virtual visit) to the farm and reviews the data and goes through the results with the farmer. There is a dialogue where the farmer can ask questions and the advisor gives tailored advice to the farmer about the strengths and areas of improvements for the farm.

Once the farmer's data is reviewed and validated by the advisor, it goes through a second review centrally in Arla to check for discrepancies and anomalies and when it has passed our statistical processes, the data is confirmed and will be part of the compiled data from all farms to generate insights and benchmarks.

What parameters does the Arla Climate Check include in its calculations?

All areas that are among the internationally recognised areas for climate assessments on a dairy farm are assessed in Arla's Climate Check. Among other things these include data on the animals coming to and leaving the farm, breed, the feed used, produced and sourced, use of fertilizer, waste and manure handling, use of fuel and energy including use of own renewable electricity.

Besides the classic parameters, there are other emissions on and outside the farm that different climate assessment tool may or may not include - or are internationally discussed as potential areas to include:

Peat soil: While some tools don't include CO₂ and nitrous oxide emissions from peat soils, these are calculated in Arla's Climate Check based on the emission factors used in the national inventory reporting in each country respectively. A third of Arla farmers have peat on their land, some have a lot of peat land while others have very little. If excluded, Arla's average footprint per kilo of milk would be 1.06 kg of CO₂e per kg of milk instead of 1.15 (2021 numbers).

Land use change (deforestation):

CO₂ emissions from land use change are currently not included in the Arla tool. Direct land use change is typically related to e.g. soy production in South America that has caused deforestation in the years after 1990. Arla's tool is designed to account for this and emissions from land use change will be included in the results as soon as the information about how much soy is actually sourced from the affected regions is more reliable.

The majority of externally purchased feed used on Arla farms is sourced within Europe, where the farmers live. The share of soy that Arla farmers use range between zero to 10 per cent and all soy used on Arla farms is either organic, ProTerra certified, RTRS (Round table Responsible Soy) or covered by RTRS certificates.

Carbon sequestration: Dairy farmers often have a lot of grasslands that can absorb and store carbon and this could potentially be recognised as a positive handprint that ultimately reduces the farmers' carbon footprint per kilo of milk. However it is one of the effects of dairy farming that are not fully scientifically understood and there is currently no consensus on how to account for this. Therefore, carbon sequestration is not yet included in Arla's Climate Check.

Arla is part of a collaboration called C-seq with FrieslandCampina, Fonterra, Mars, McDonalds and Nestle among others to develop internationally recognised and globally adopted carbon sequestration calculation guidelines for the dairy sector. During the fall of 2020, a public consultation has taken place to review the suggested methodology. The guideline is now close to being finalised and is aimed to be published before summer. During 2021, Arla will conduct pilots in our four core markets to test the developed methodology under practical conditions. Depending on the success of the pilots we aim to include carbon sequestration in our climate check from 2022.

Has Arla measured climate impact on farms before rolling out Climate Checks in 2020?

Yes, we have calculated the carbon footprint from dairy farms for several years, either using our own tools or open tools available in the different countries or internationally. We started developing our first own tool in 2011 designed for Danish farmers and this was rolled out in 2013. Our farmers in Sweden, the UK, Germany and Benelux have used national open tools, but we wanted to develop one tool for Arla farmers in all countries to be able to measure, compare and track progress of emissions across our cooperative. This led to the rollout of our global Climate Check tool in 2020.