FACT SHEET - FEBRUARY 2026

Food belongs on plates, not in plane engines

Why the UK Sustainable Aviation Fuel mandate must retain its ban on crop-based biofuels

Alternative aviation fuel produced from food, feed or energy crops is currently not eligible under the UK Sustainable Aviation Fuel (SAF) mandate meaning that it cannot be used to reduce flight emissions. However, under pressure from the UK fuels industry and airlines, the UK government has decided to re-open the debate, launching a call for evidence on the eligibility of different types of crops in the SAF mandate. Far from a solution, allowing SAF derived from food and feed crops to fulfil the mandate would risk driving deforestation and increasing food prices, flooding the market with U.S.imports while killing the business case for UK made green fuels, costing jobs and economic growth.

1. Crop-based fuels cause deforestation and food price inflation, and are inefficient to decarbonize the UK aviation sector

There are several important reasons why crop-based SAF is excluded from European SAF mandates (both in the UK and in the EU):

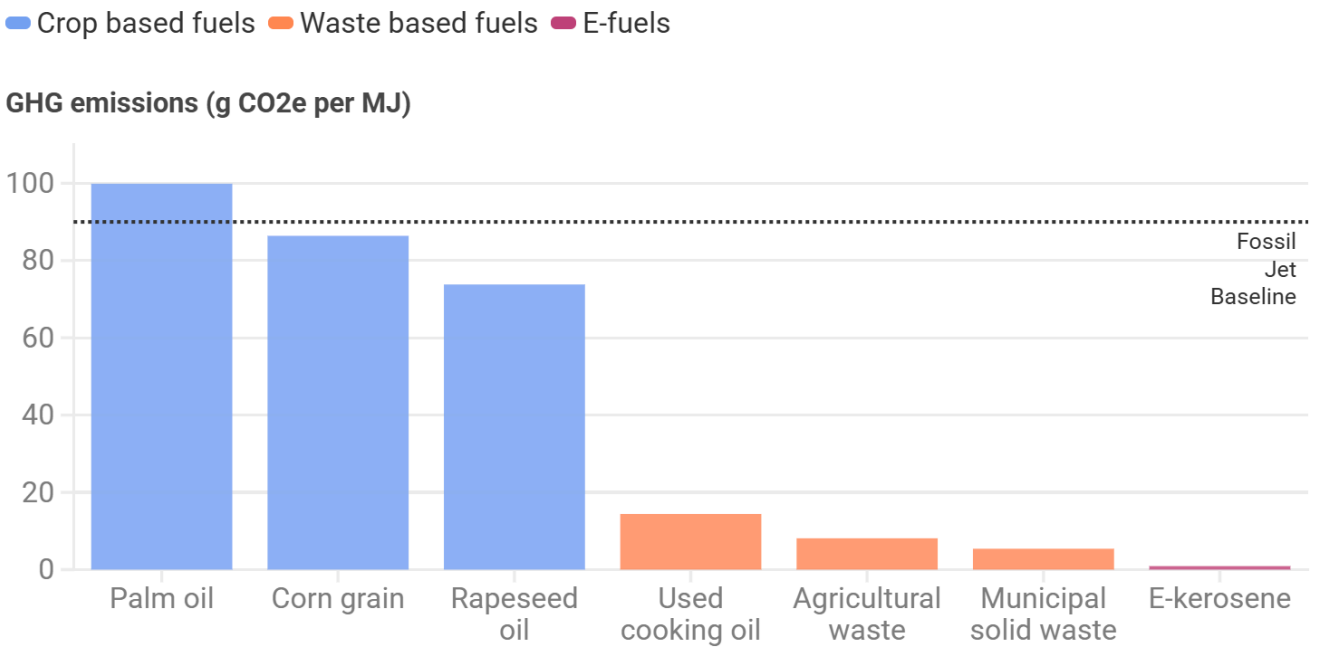
- Producing crop-based fuels requires substantial amounts of land, and **this land consumption competes directly with food production.** Meeting the UK's 2030 SAF target using only crop-based fuels would require **around 4% of all UK agricultural land**, enough to feed 750,000 households per year. Meeting the UK's entire SAF mandate in 2040

would require 10% of all UK agricultural land, equivalent to nearly 12 times the size of Greater London.

- This competition of biofuel production with food production has long been proven to drive food prices up especially of staples like cereals, pasta and bread as land used to grow food is dedicated to biofuels instead.
- Moreover, crop-based fuels trigger direct and indirect land-use changes, leading to environmental destruction and additional carbon emissions. If crops or land previously grown for food is converted to fuel production, demand for food and feed crops remains. This leads to displacement of production somewhere else, typically by converting forests, grasslands and peatlands into agricultural land. This loss of carbon sinks can cancel out any emissions benefits of crop-based biofuels. Due to these land use change impacts, **food- and feed-based SAF can lead to emissions similar to or even higher than fossil fuels** as shown in the graph below.

Food-based fuels offer almost no emission savings relative to fossil jet fuel

Typical emission savings presented, but real emission savings can differ based on the source, especially for waste-based fuels



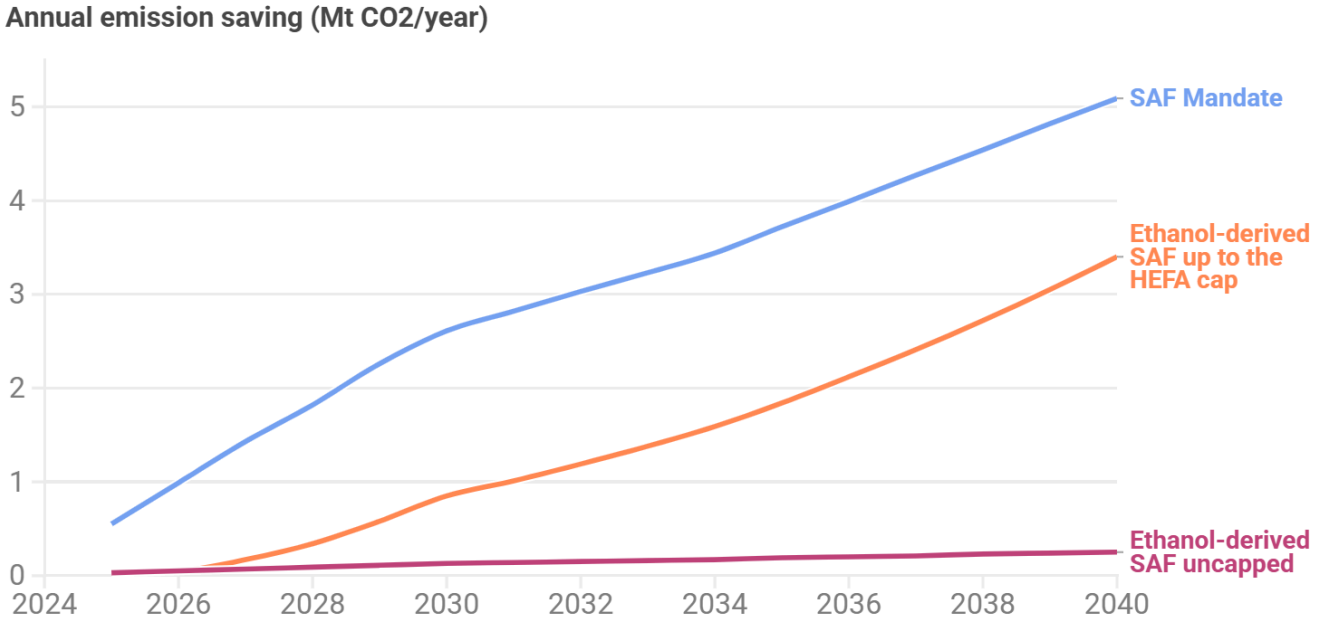
Source: ICCT

Therefore, allowing crop-based fuels to comply with the UK SAF targets threatens the efficiency of the mandate in reducing the emissions of the aviation sector. As it stands, the mandate is

expected to deliver emission reductions of up to 2.7 MtCO2e in 2030 and up to 6.3 MtCO2e in 2040. If crop-based SAF were allowed to compete with all pathways without restriction, these emission reductions could drop by 95-96% to 0.13 MtCO2e in 2030 and 0.25 MtCO2e in 2040, nearly cancelling out the climate impact of the mandate.

Allowing crop-based fuels into the mandate significantly decreases its emission impact

SAF-derived ethanol made from wheat offers close to zero emission benefit over fossil jet fuel



Source: T&E analysis

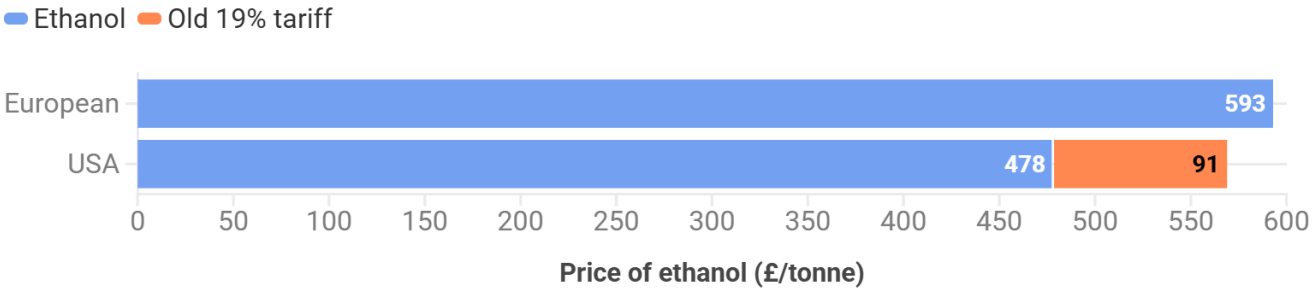
2. Opening the mandate to crops will flood the UK market with subsidised US imports not supporting British farmers or existing biofuel refineries

Some proponents of the inclusion of crop-based fuels in the UK SAF mandate argue that it will offer new opportunities for UK bioethanol producers and UK farmers supplying them alleviating competition from US bio-ethanol producers.

However, data shows that **European bioethanol is 24% more expensive than US bio-ethanol** meaning that even with a larger market UK made bioethanol will not be competitive vs. US imports. U.S bioethanol receives substantial production incentives under the US Inflation

Reduction Act meaning that it is unlikely that UK bioethanol production will be able to compete with U.S. imports.

Crop-based ethanol is much cheaper to produce in the US, especially now that tariffs have been removed

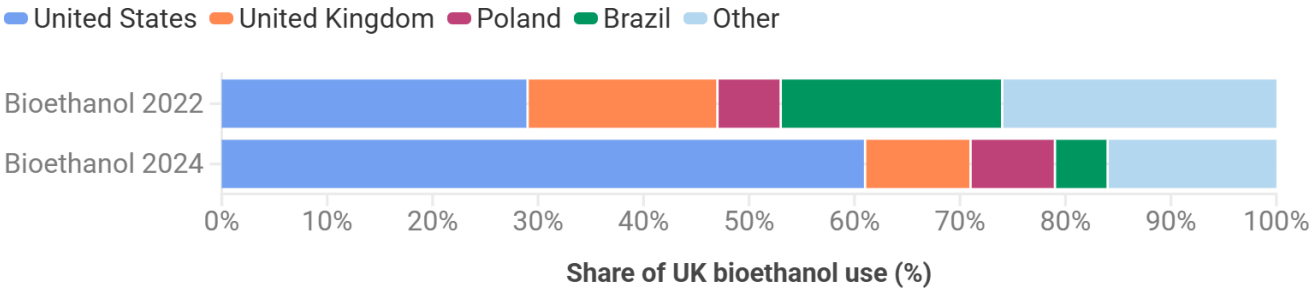


Source: Stratas

The UK already relies heavily on US bioethanol imports, demonstrating the strong competitiveness of US supply. In 2024, only 10% of bioethanol used in UK transport was produced domestically with 90% imported. The U.S was by far the biggest supplier, responsible for 60% of supply, far ahead of the 2nd largest Poland at just 8%.

Low cost US bioethanol dominated UK supply in 2024 despite a 19% tariff

Bioethanol used in UK transport comes from all over the world, but the biggest share comes from the USA



Source: UK RTFO reporting

The share of supply from the U.S. has grown rapidly from just 29% in 2022 to 60% in 2024 and is expected to grow further due to the elimination of the 19% import tariff as part of the US-UK trade deal signed in May 2025. The trade deal eliminated tariffs on volumes of US bioethanol equivalent to all of the bioethanol currently used in the transport sector, dropping the price of U.S. bioethanol by 19%[1].

Due to the large price gap in bioethanol, opening the SAF mandate to crop-based biofuels would **further increase imports from the U.S. rather than support domestic production**. Due to international trade rules it is unlikely to be possible to limit crop based biofuels within the SAF mandate to those grown and produced in the UK.

This means that any attempt to include crops in the UK SAF mandate risks turning the mandate into a channel for subsidised US ethanol imports, rather than a sustainable support mechanism for UK farmers or domestic bio-ethanol producers. **The SAF mandate cannot serve as a lifeline for the UK bio-ethanol industry.**

3. The mandate targets are achievable without crops, and crops would hinder advanced fuels

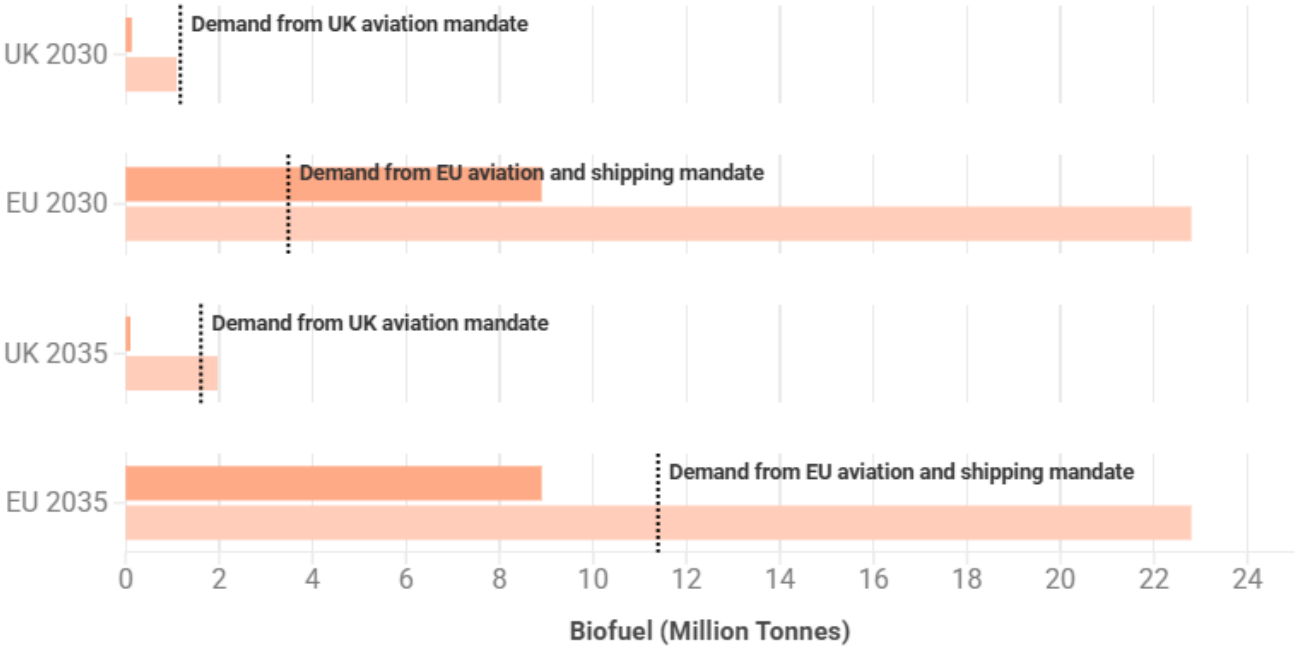
Some proponents of the inclusion of crops in the UK SAF mandate argue that they are necessary to meet SAF targets because other SAF pathways will be in short supply. However, official UK SAF mandate modelling indicates that currently eligible feedstocks should be sufficient to meet the UK SAF mandate out to 2040, provided that production capacity and technologies are deployed effectively.

The ability to bridge any potential supply gap with EU imports will largely depend on how fast production capacity and technologies are deployed there as well. For example, the ICCT estimates that there should be enough bio-waste and residues in the EU to produce close to 23 Mt of SAF, which is more than double the expected demand from UK and EU SAF mandates as well as the EU shipping sector (13 Mt in total)[2].

[1] As part of the trade deal, the UK has agreed to import 1.4 billion litres of US bioethanol tariff-free, which is equivalent to the total amount of bio-ethanol supplied in the UK in 2024 according to RTFO statistics.
[2] Demand from UK shipping is not considered due to a lack of UK regulation to drive green fuels into the sector.

Enough advanced biomass feedstocks in Europe to meet SAF targets, provided technology is deployed in time

Advanced biofuel low and high supply scenario



Source: UK demand: T&E analysis of SAF mandate targets. EU demand: T&E analysis of Fuel EU policy. UK supply: DfT analysis for SAF mandate consultation. EU supply low: T&E analysis of advanced biofuels with strict sustainability safeguards. EU supply high: ICCT analysis including higher deployment of wastes and residues.

The key constraint in the short to mid-term is therefore **not feedstock scarcity, but the pace at which advanced SAF production capacity and technologies are deployed.** Using crop-based fuels to address this challenge risks locking in less sustainable pathways rather than accelerating the development of genuinely sustainable SAF. The announced Revenue Certainty Mechanism (RCM), which will de-risk investments in non-HEFA SAF through a guaranteed strike price, will be key to unlocking advanced SAF production in the UK.

Allowing crop-based SAF —the cheapest, least scalable and least sustainable SAF pathway— would distort the market for innovative and scalable fuels such as advanced biofuels and e-fuels. For instance, redirecting the 1.4 billion litres of bioethanol currently used in UK road transport to aviation, as suggested by the UK Renewable Transport Fuels Association, would be equivalent to supplying 3.2% of national jet fuel demand. **This would be enough to absorb the entirety of the SAF mandate's intended market space for advanced biofuels and e-fuels up to 2030, killing the business case for investment in these green growth sectors costing UK jobs and growth.**

Further information

Camille Mutrelle

Aviation Policy Officer

T&E

camille.mutrelle@transportenvironment.org