

BRIEFING

Feeding the fuel crop: Fertilisers are powering more than just food

The European Commission has proposed a plan to stockpile fertilisers in the wake of the conflict in the Middle East. Expanding crop-based biofuels production would put further strain on the EU's fertiliser supplies

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Despite European [fuel policy](#) now limiting their use, [around half](#) of biofuels consumed in the EU and UK still rely on food crops. Each year, around 10 Mt of vegetable oils, primarily rapeseed oil, are used for biodiesel and HVO, alongside roughly 14 Mt of grains like wheat and corn and 3 Mt of sugar crops for ethanol production according to [Cerulogy](#).

Such crops require chemical inputs, particularly fertilisers, to sustain high yields. Maximising productivity and maintaining crop resilience depend on a careful balance of nitrogen (N), phosphate (P₂O₅) and potash (K₂O), the key nutrients underpinning modern agricultural production.

Combining crop-specific nutrient data from the [International Fertilizer Association](#) (IFA) with European biofuel feedstock use, we estimate that biofuels currently consume approximately 0.8 million tonnes of nitrogen, 0.2 Mt of phosphate, and 0.2 Mt of potash. **This represents roughly 8% of EU and UK total fertiliser nutrients used toward fuel production rather than food.**

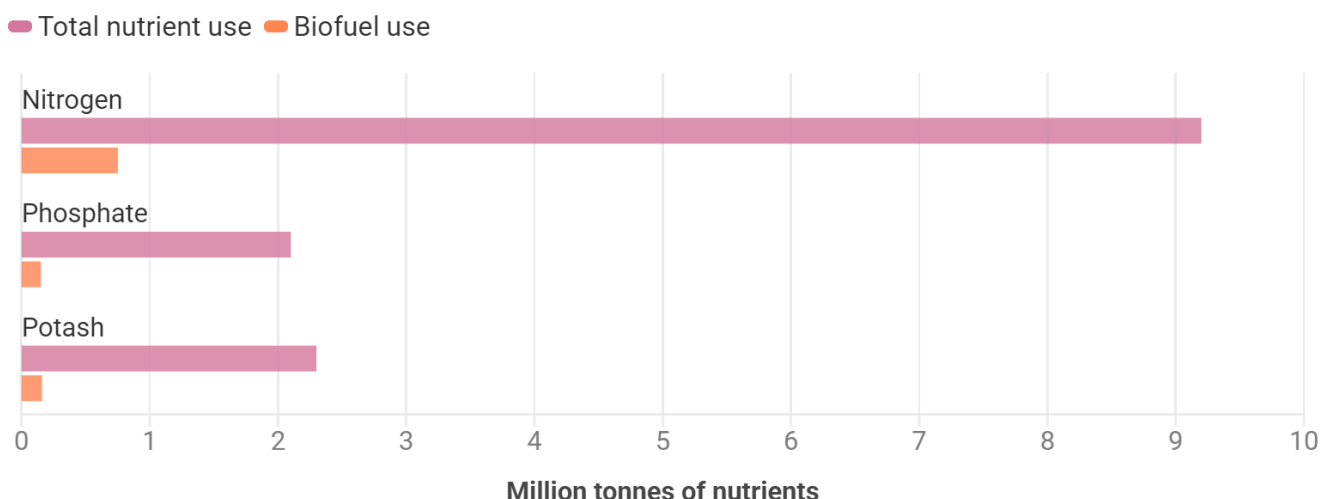
However, European [import reliance](#) for nitrogen fertilisers stands at 30%, while for potash and phosphatic fertilisers import reliance surges to 40% and 70% respectively. To reduce its dirty fertiliser dependency, the EU launched its [Carbon Border Adjustment Mechanism](#) (CBAM), on January 1, 2026, encouraging cleaner production. While nitrogen fertiliser imports [dropped by 80%](#) in January 2026 as markets adjusted to these new standards, this transition was immediately complicated by the sudden Middle East crisis.

This timing has left farmers facing record-high prices, especially for [nitrogen-based inputs](#), with urea prices 55% higher compared to the beginning of the year. To mitigate these risks, the new [EU Fertiliser Action Plan](#) is now more critical than ever to reinforce domestic supply and bolster circular alternatives for food production while preventing biofuel mandates from further straining the bloc's nutrient security.

Addressing the immediate pressures on the farming sector requires a balanced mix of short- and long-term measures. Crucially, short-term responses should not compromise the long-term sustainability. Within these immediate measures, emphasis must be placed on environmentally friendly practices that reduce overall fertiliser reliance and that generate positive impacts also in the long run.

Crop-based biofuels supply only 2% of European transport energy demand, yet require around 8% of the bloc's fertiliser needs

European biofuel crops such as rapeseed, corn, wheat and sugar beet depend on substantial applications of nitrogen, phosphorus and potassium fertilisers



Source: T&E, based on data from the International Fertilizer Association (2023) and Cerulogy (Diverted harvest, 2024)



Recommendations

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Maintain existing cap and exclusions on crop-based biofuels in EU legislation, and tie fertiliser use to the strict implementation of the cascading use principle. This prioritises nutrients for food production, rather than for lowest value applications such as biofuels.

Stop wasting CAP funds on fertilisers for biofuel crops. Redirect this money toward cleaner, domestic fertiliser production and incentivise the uptake of eco-schemes by farmers for a more resilient and sustainable food supply.

Methodological note

Current biofuel fertiliser use was estimated by integrating Ceruly's [national biofuel feedstock breakdown](#) with the International Fertilizer Association's (IFA) latest [global data on fertiliser use by crop and by country](#). While the Ceruly study presents estimates of the net area allocated to biofuel crop production (excluding co-products like protein meal from biofuel crops), the IFA dataset provides the national average N, P₂O₅ and K₂O nutrient inputs per area.

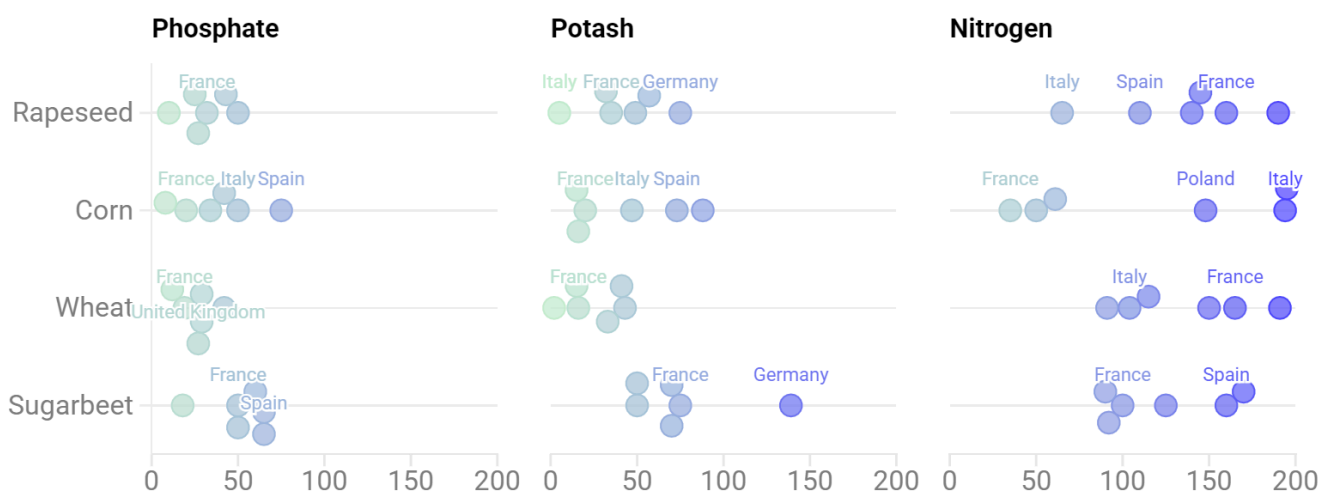
Where feedstock categories lacked specificity, nutrient requirements were estimated using the average of the most common biofuel feedstocks within each category. For example, nutrient inputs for European grain crops were calculated as the average of wheat and corn requirements. France was used as a representative European country, as it accounts for the largest share of food- and feed crop-based biofuel consumption in the EU, representing close to [one third](#) of the bloc's total volume use.

Finally, estimates for biofuel nutrient use across largest producing countries were compared to total fertiliser nutrient consumption from the [IFA's statistics](#).

The fertiliser footprint of major European biofuel crop production

Visualising how fossil nutrient intensity varies by crop and geography to meet biofuel mandates

Nutrient input (kg/ha per year) 2  195



Source: T&E, based on data from the International Fertilizer Association (2023)



Further information

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