

Cultures **SUCRE**

STATISTICAL **MEMO**

SUGAR AND OTHER BY-PRODUCTS



CAMPAIGN
2024-2025



FRANCE | EUROPE | WORLD | OTHER BY-PRODUCTS

KEY FIGURES

OF THE BEET-CANE-SUGAR SECTOR

SUGAR-PRODUCING FRANCE AS AT 1 APRIL 2025

The figures for this Statistical memo take account of the 2024-2025 campaign, when figures for this campaign are available.



SUGAR PLANTS

■ SUGAR BEET (2024-2025 campaign)

23,000 growers produced on 411,770 ha (i.e. 1.5% of the Utilised Agricultural Area) **32.9 million tonnes** of sugar beet with **16%** sugar content.

■ SUGAR CANE (2023-2024 campaign)

Over 2 million tonnes of sugar cane was harvested over 35,220 hectares in French overseas departments (DROM).



SUGAR PRODUCTION

In 2024-2025, Metropolitan France had five sugar companies with 20 sugar-producing plants spread in northern and eastern France.

In regulatory terms, production* in 2024-2025 is **4.58 million tonnes of beet sugar**.

DROM (French overseas departments) (2023-2024 campaign):

In all, 5 sugar factories produced **179,150 tonnes of cane sugar** (Reunion, Guadeloupe, Martinique).

Alcohol/ethanol-producing France (2023-2024 campaign):

In 2023, mainland France had 5 companies with 12 sites, 10 of which were distilleries producing alcohol from beetroot and cereals and 2 sites only performed raw alcohol rectification and dehydration.

France produced **14.8 Mhl** agricultural alcohol (bioethanol+traditional alcohol, vinification excluded) in 2023/2024.

■ **6.8 Mhl** from beet (46%) and **8 Mhl** (54%) from cereals (wheat+corn).

■ **10 Mhl** for the bioethanol (67%) and **4.8 Mhl** for traditional alcohol (33%).

In France, ethanol and beet sugar production puts to work **23,000** growers and supports more than **6,000** jobs in the sugar factories. This represents upwards of 70,000 jobs, including both indirect and induced employment (60,000 jobs in the sugar beet industry, and 11,000 in the bioethanol-alcohol sector**).



FRANCE IN THE SUGAR-PRODUCING WORLD***

■ Ninth largest sugar producer in the world

■ Second beet sugar producer in the world

■ Leading sugar producer in Europe (Metropolitan France + DROM)

* The definition of sugar production (Regulation (EU) 2017/1185) counts the quantities produced at the syrup stage regardless of the subsequent use (food, non-food, alcohol/ethanol).

** Source: 2014 PWC study for bioethanol, and extrapolation for traditional alcohol.

*** Average over three years.

FRANCE



23,000
growers



32.9 Mt
of sugar beets



4.58 Mt
of beet sugar



20
active sugar factories



+2 Mt
of sugar canes



0.18 Mt
of cane sugar



1st largest sugar producer in Europe
9th largest sugar producer in the globe



5

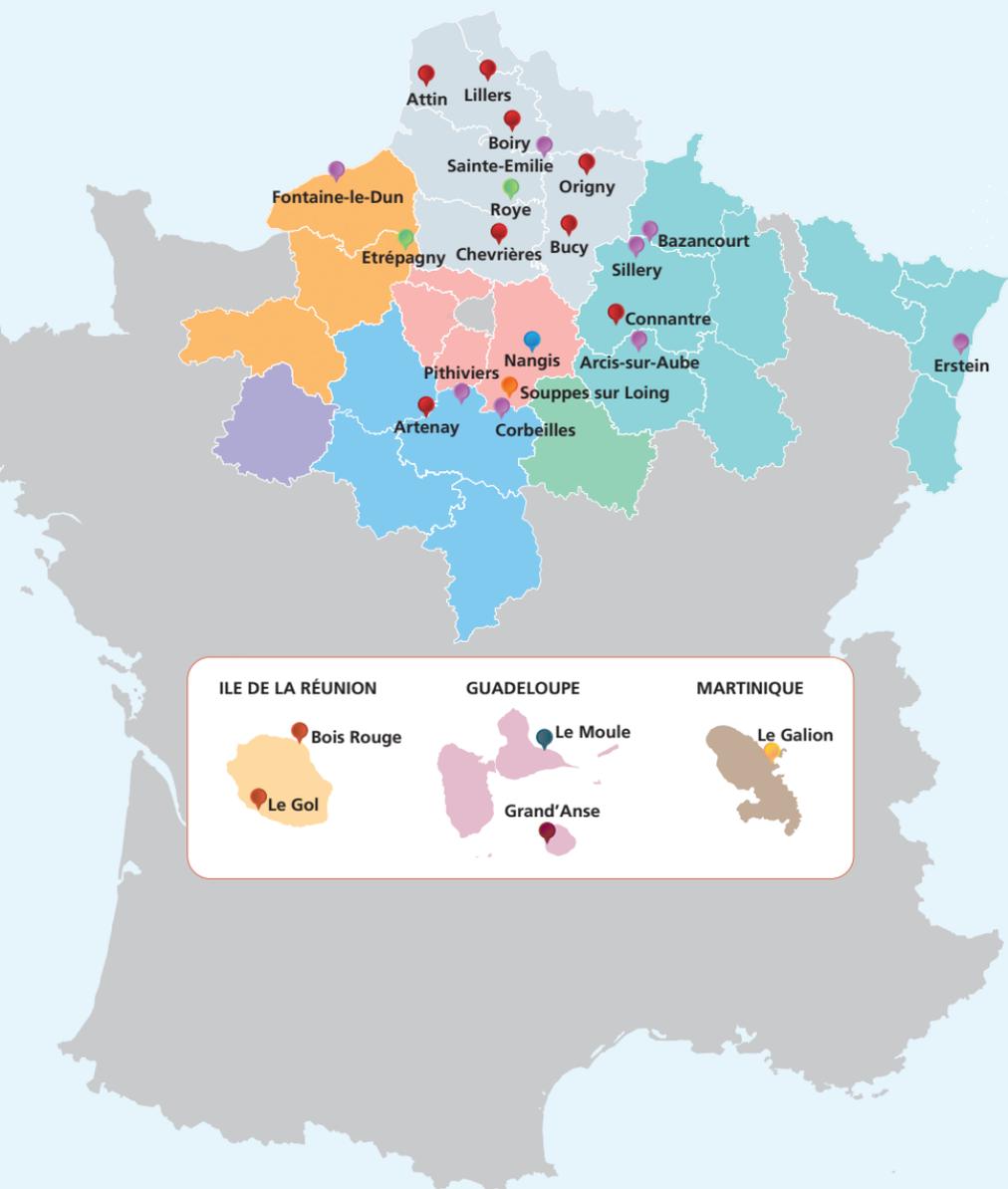
sugar factories in French
overseas departments

Mt = million tonnes

The figures on this statistical memo take into account the 2024-2025 campaign, when the figures for this campaign are available.

The sugar sector in France

2024 – 2025 campaign - Main sugar-producing departments



ILE DE LA RÉUNION



GUADELOUPE



MARTINIQUE



◆ Sugar beet sector in France

5 sugar companies and groups in mainland France

Groupe Cristal Union

(8 plants)

- Sucrierie d'Arcis-sur-Aube
- Sucrierie de Bazancourt
- Sucrierie de Corbeilles
- Sucrierie d'Erstein
- Sucrierie de Sillery
- Sucrierie de Fontaine-le-Dun
- Sucrierie de Pithiviers
- Sucrierie de Sainte-Emilie

Lesaffre Frères

(1 plant)

- Sucrierie de Nangis

Ouvré et Fils SA

(1 plant)

- Sucrierie de Souppes-sur-Loing*

Saint Louis Sucre

(2 plants)

- Sucrierie d'Etrépagny
- Sucrierie de Roye

TEREOS

(8 plants)

- Sucrierie d'Artenay
- Sucrierie d'Attin
- Sucrierie de Boiry
- Sucrierie de Bucy
- Sucrierie de Chevrières
- Sucrierie de Connantre
- Sucrierie de Lillers
- Sucrierie d'Origny

◆ Sugar cane sector in France

4 sugar companies in the French overseas departments

Reunion

TEREOS Océan Indien

- Sucrierie de Bois-Rouge
- Sucrierie du Gol

Guadeloupe

GARDEL S.A.

- Sucrierie du Moule

SUCRERIE ET RHUMERIE MARIE GALANTE S.A.

- Sucrierie de Grand'Anse

Martinique

S.A.E.M. DE PRODUCTION SUCRIÈRE ET RHUMERIE DE LA MARTINIQUE

- Sucrierie du Galion

Sources: S.N.F.S., Tereos

*Latest campaign in 2024-2025

◆ Changes in metropolitan production

thousand tonnes of white sugar

Sugar campaign	Production	Number of sugar plants
2020-2021	3,445	21
2021-2022	4,550	21
2022-2023	3,950	21
2023-2024	4,228	20
2024-2025 (provisional)*	4,576	20

Source: S.N.F.S.

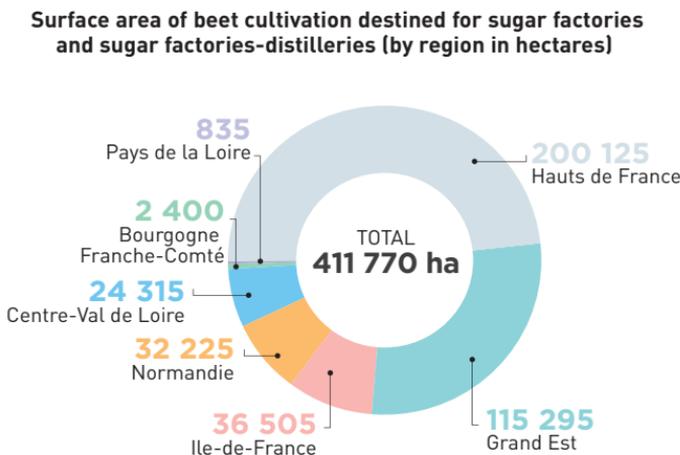
*Provisional Metropolitan sugar production

In France, the 2024/25 estimated report shows 5.8 million tonnes of sugar used, distributed in the following way: 2.7 million tonnes of sugar sold in France; 1.65 million tonnes of sugar sold in the EU; 0.55 million tonnes of sugar exported to third countries; and 0.85 million tonnes of sugar exported in the form of sugar-sweetened products.

In France, the vast majority of the uses are destined for human consumption (table sugar, food industry products) with the remaining volume used in the chemical and pharmaceutical industries and the alcohol/ethanol sector.

◆ Sugar beet growing areas

In 2024-2025, sugar beets are grown in 7 regions in France, accounting for around 411,770 hectares¹.



Source: Agreste, 01/02/2025 (2024 sowing)

¹-This total includes the French farmland for growing beetroot devoted to sugar, alcohol and bioethanol production.

◆ Changes in sugar beet production

Sugar beet (all uses together)

Sugar campaign	Seeding (1,000 ha)	Sugar content (°S)	Beet yields (t at 16 °S/ha)	Tonnage of beet harvested (million t at 16 °S)
2015-16	383	18.3	87.8	33.6
2016-17	402	18.3	85.8	34.5
2017-18	485	18.0	96.1	46.7
2018-19	485	19.0	82.0	39.6
2019-20	445	17.8	85.0	37.8
2020-21	421	17.1	61.4	25.8
2021-22	402	17.4	85.7	34.5
2022-23	402	17.7	77.0	30.7
2023-24	380	16.8	83.1	31.6
2024-25 (estimations)	411	16.6	80.0	32.9

Sources: C.G.B., I.T.B.

The beet yields experienced large growth for more than 50 years (48.3 tonnes per hectare in 1960-61 versus 96.1 tonnes per hectare in 2017-18). This growth was essentially due to the progress made in the areas of genetics, seed selection and improved farming techniques.

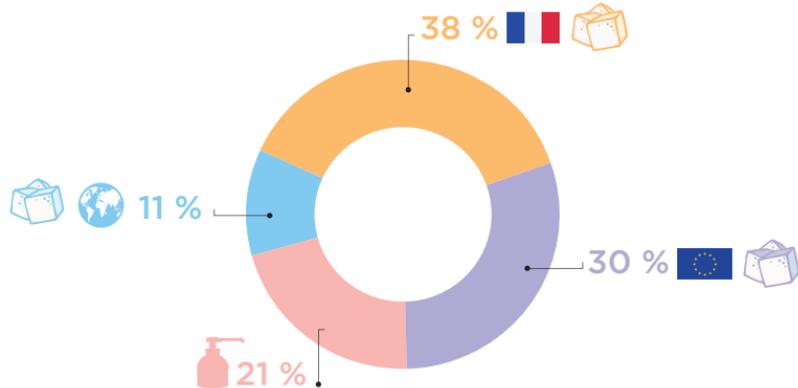
The French sector has observed that for the past ten years, the beet yields have stabilised and endured significant fluctuations due to climate variations and parasitic attacks. Restrictions on the means of combatting parasites has penalised profitability in the French sector.

The genetic improvement of the beet varieties and the progress in farming techniques remain vital components in increasing productivity and guaranteeing the continuation of the French beet-sugar-ethanol sector.

The 2024-2025 campaign stood out due to low sugar levels in the beetroot.

Sources: C.G.B.

Breakdown of beet production in 2024-2025



- Beet processed into sugar marketed on the French market
- Beet processed into alcohol and ethanol
- Beet processed into sugar marketed on the European market
- Beet processed into sugar marketed on the global market

Source: C.G.B.

◆ Committed to a greener future

Decarbonisation is a key priority for French beet growers, who have committed to **cutting emissions by 35% by 2030** (compared to 1990 levels) with the introduction of measures such as input reduction and cover cropping for carbon capture and storage.

For its part, the French beet-sugar-ethanol sector is on track **to slash industrial emissions by half between 2015 and 2030** through a suite of different solutions — including energy efficiency, partial electrification, anaerobic digestion of effluent and thermal recovery from beet pulp — which should make **the target of carbon neutrality by 2050 a very real possibility**.

All **sugar refineries** have had a long-standing commitment **to recycling beet water** as part of a **circular economy** approach. Whereas some of the liquid is reused in the sugar extraction process, the surplus can be stored and repurposed for the sugar refinery (steam production) and agriculture (irrigation).

◆ French sugar industry: a positive contribution to the country's trade balance

In 2024-2025, French **exports** (to third countries) and **shipments** (to EU countries) of unprocessed sugar will reach **2.2 Mt**, compared with **imports** of **0.2 Mt**. The net exports (exports – imports) in 2024-2025 amount to 40% of French sugar production (including overseas departments).

Sugar is shipped mainly to the EU countries of Italy, Spain and Germany.

Outside the EU, the main customers are the United Kingdom and the countries located in West Africa, North Africa and the Middle East.

Thus, the positive balance of 1.2 million euros in 2024 (calendar year) shows the essential contribution made by the sugar industry to the country's balance of trade.

◆ Sugar consumption in France

The sales of sugar are a unique reflection of a notion of availability or volumes of sugar marketed at the scale of a country or a population. **In France, sales per inhabitant have been stable for more than fifty years.**

Here are the WHO* and ANSES** recommendations relating to sugar consumption. WHO recommends strongly limiting **free sugars** (added sugars and sugars found naturally in fruit juices), including cane or beet sugar, to at less than 10% of daily calories (i.e. 50 g for 2,000 Kcal) to prevent obesity and tooth decay.

ANSES made another recommendation: do not consume more than **100 g of sugars per day (excluding lactose)**, i.e. all sugars brought by food, be they naturally present (glucose, fructose or sucrose from fruit) or added to foods (sucrose from beet or cane, glucose syrups and honey mainly).

On average, adults therefore comply with the recommendations but children overrun them substantially. As it is an average, many adults are however above the recommendation.

* World Health Organization (WHO).

** Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail (ANSES).

FREE SUGARS



**WHO
RECOMMENDATION**

10%

Equalling 50 g for 2,000 kcal/day



**ADULT
CONSUMPTION**

10.5%

Equalling to 57 g/day



**CHILD
CONSUMPTION**

15.3%

Equalling to 67 g/day

TOTAL SUGARS EXCLUDING LACTOSE

**ANSES
RECOMMENDATION
adults**

100 g/day



**ADULT
CONSUMPTION**

75 g/day

Sources: CCAF (Credec) 2019, Anses 2017

TOTAL SUGARS

(INDICATED ON THE LABEL ON THE LINE "CARBOHYDRATES INCLUDING SUGARS")

**ADDED
SUGARS**



**NATURALLY OCCURRING
SUGARS**



**FREE SUGARS
(WHO Recommendations)**

**TOTAL SUGARS EXCLUDING LACTOSE
(ANSES Recommendations)**

Source: Cultures Sucre

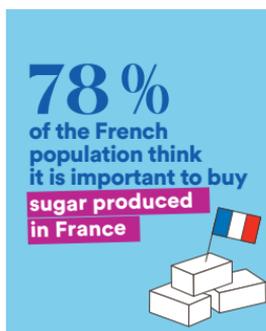
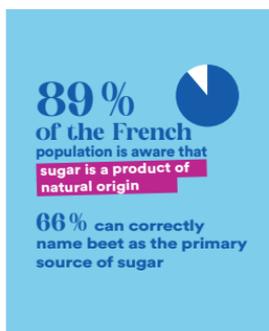
◆ Sugar's public image: a mystery to many despite strong backing for the industry

Promising figures reflect growing awareness among French consumers

According to the National CSA–Cultures Sucre¹ Barometer published in late 2024, **9 out of 10 French people view sugar as a product of natural origin.**

Continuing to champion the French sugar industry and its key role in our food sovereignty

- 78% of the French population believe it is important **to buy sugar produced in France, support farmers** (63%), **keep jobs** in France (54%) and **contribute to the nation's economy** (51%).
- And yet, half of the population is not aware that the sugar they eat is already homegrown.
- 90% of French people want to **keep a sector strong** that can guarantee the **country's food sovereignty in relation to sugar.**



1-Survey based on a representative sample of 1,210 French people aged 15 and over via a self-administered online questionnaire conducted by the CSA Polling Institute on behalf of Cultures Sucre - 2024

EUROPE



16.6 Mt
of white sugar produced



14 Mt
of white sugar used



0.95 Mt
of white sugar
imported



2 Mt
of white sugar
exported



88*
active sugar factories
*in 2023-2024



98,596*
growers
*in 2023-2024

The figures for this Statistical memo take account of the 2024-2025 campaign, when figures for this campaign are available.

Map of sugar-producing Europe in 2024-2025 (EU excluding overseas departments)



The dots represent each sugar-producing plant. Sources: S.N.F.S., A.G.P.

◆ The sugar market

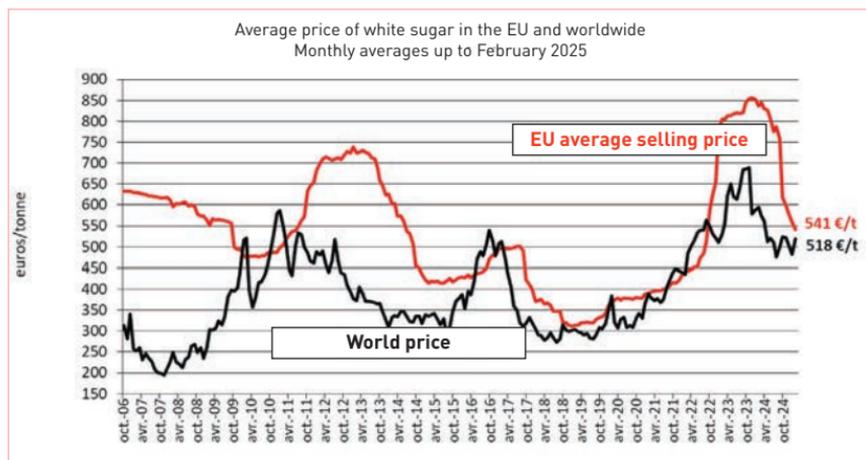
The sugar market in 2024

In late 2023, the worldwide sugar market — which had previously been stable — was jolted by a major correction following the decision of the Indian government to divert sugarcane use from ethanol production to sugar manufacturing.

This downward trend extended into the first half of 2024 before the market returned to a more stable footing. This was in spite of heightened volatility driven by announcements about climate developments in the major sugar-producing countries, fluctuations in the dollar-real rate, fund movements and Brazilian export levels.

The market has leaned very heavily on Brazilian sugar this year, largely because India has remained absent from export activity.

The EU sugar price, monitored by the European Commission's EU sugar price information system, continued its upward trajectory in 2023. Following several years of severe crisis, it stabilised at a level that allowed the sector to withstand the difficult economic context. In 2024, the EU sugar market experienced a notable downturn, due in large part to the massive influx of sugar imports into the EU from Ukraine.



◆ Sugar balance of the European Union of 27*

	Production	Uses**	Exports	Imports
2024-2025 (forecast)	16,617	13,972	2,000	950
2023-2024 (estimations)	15,558	13,609	1,623	1 386

* These data do not include sugar imports and exports as processed products nor the stock variations.

** All uses, including industrial uses (in millions of tonnes of white sugar).

The European Union of 27 countries produced 16.6 million tonnes of white sugar in 2024-2025. The uses cover food consumption as well as a variety of industrial uses: manufacture of alcohol and ethanol, yeasts, pharmaceutical and chemical products.

Source: European Commission

◆ European sugar industry in 2024-2025

Country (by region*)	Number of sugar plants	Production of sugar (beet)	Number of planters	Yield sugar (forecast)
	2023-2024	2024-2025** (in thousand of tonnes)	2023-2024	2024-2025 (t/ha)
Region 1				
 Austria	35	4,719	34,382	9.2
 Czech Republic				
 Denmark				
 Finland				
 Hungary				
 Lithuania				
 Poland				
 Sweden				
 Slovakia				
Region 2				
 Belgium	43	11,040	57,959	12.6
 Germany				
 France				
 Netherlands				
Region 3				
 Spain	10	858	6,255	8
 Croatia				
 Italy				
 Romania				
 EU 27	88	16,617	98,596	11

* Data for production of sugar are no longer given for each member state, excepted for some countries like France.

** (forecast) white value

Sources: European Commission, C.E.F.S

WORLD



175.5 Mt
of raw sugar produced in
the world



136.3 Mt
of cane sugar



39.2 Mt
of beet sugar

World's largest producer



BRAZIL

42.5 Mt
of sugar

World's largest consumer



INDIA

28.6 Mt
of sugar

World's largest exporter



BRAZIL

32.1 Mt
of sugar

World's largest importer

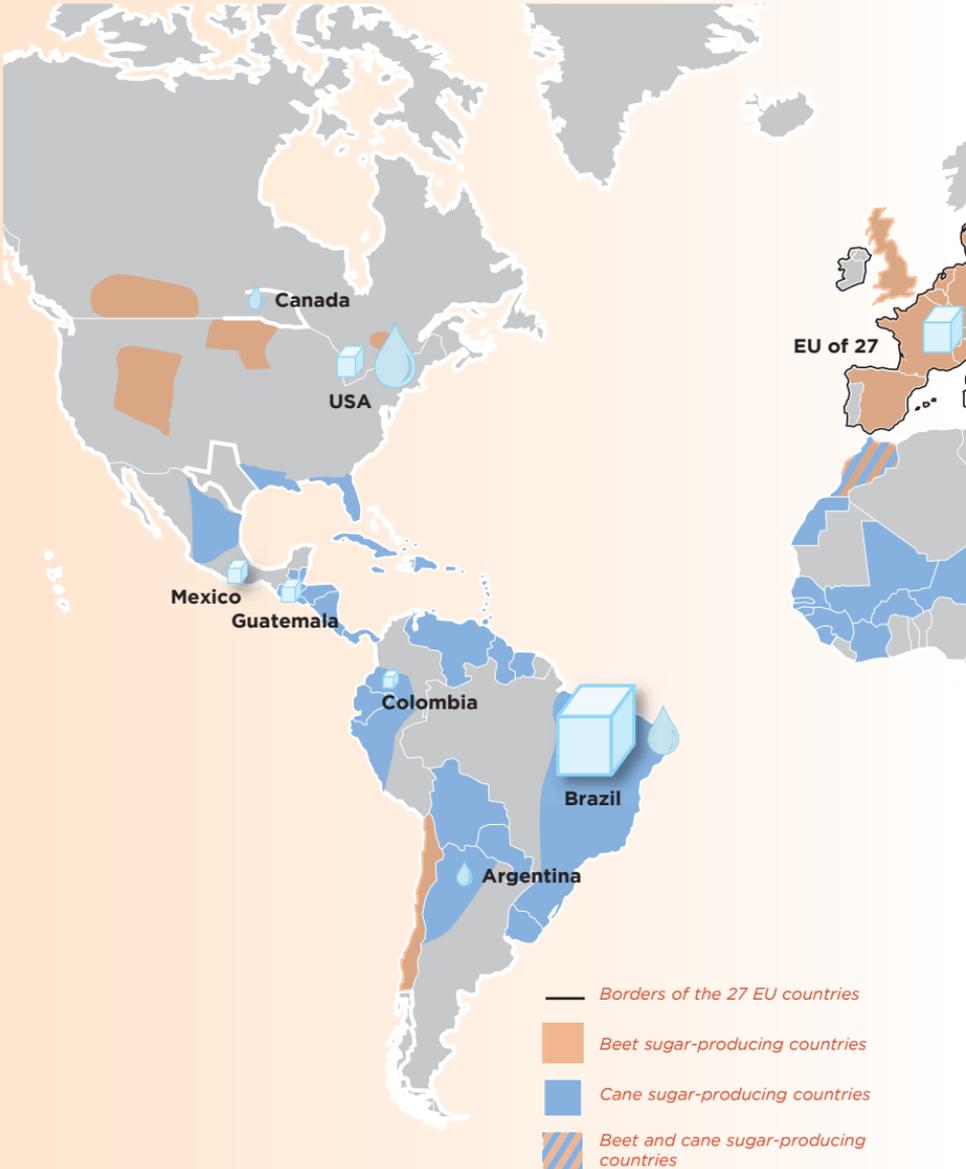


CHINA

6.1 Mt
of sugar

The figures for this Statistical memo take account of the 2024-2025 campaign, when figures for this campaign are available.

Sugar-plant cultivation regions, sugar-producing countries and ethanol-producing countries



Main sugar-producing countries

(thousand tonnes of sugar - tel quel value)



≥ 40 Mt



≥ 30 Mt



≥ 25 Mt



≥ 20 Mt



≥ 15 Mt



≥ 10 Mt



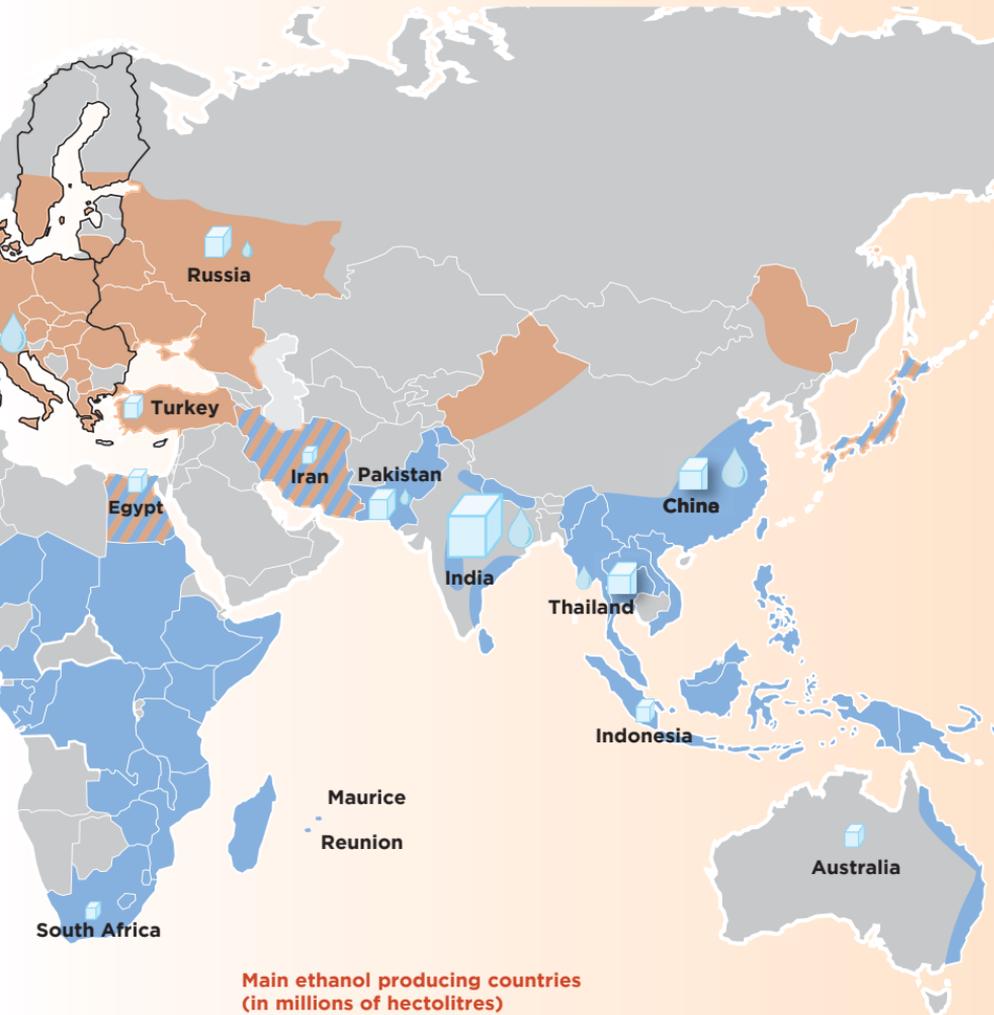
≥ 5 Mt



≥ 2,5 Mt



≥ 1 Mt



Main ethanol producing countries (in millions of hectolitres)



≥ 500 Mhl



≥ 300 Mhl



≥ 50 Mhl



≥ 25 Mhl



≥ 10 Mhl

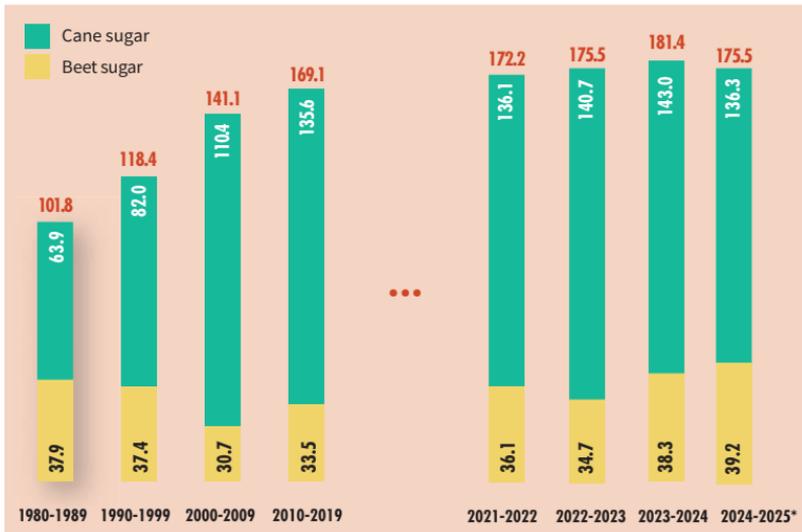


≥ 4 Mhl

◆ Changes in world sugar production

Per campaign (in millions of tonnes of raw sugar)

Global Production/ten-year averages and last four campaigns

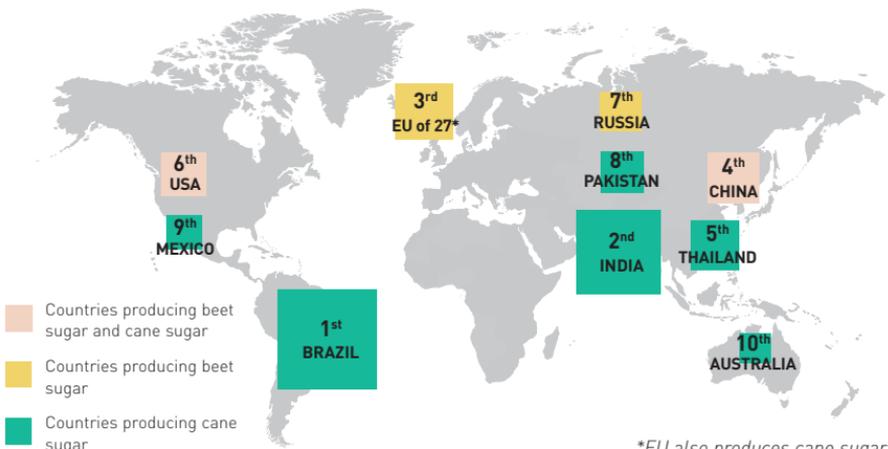


Source: ISO

1- The graph combines the figures from national campaigns with dates varying from country to country, unlike the balance table established at a fixed date. Slight differences therefore result. Cane sugar henceforth represents 80% of world production.

*Estimations

◆ 10 largest sugar-producing countries in the world



*EU also produces cane sugar in overseas departments and regions.

◆ World sugar balance

1 October to 30 September

thousand tonnes of tel quel sugar¹

Oct/sept	2022/23	2023/24	2024/25
Initial stock	98,801	96,919	97,815
Production	175,473	181,384	175,540
Consumption	177,344	179,972	180,421
Final stocks	96,919	97,815	93,597

1- In these statistical data, certain figures are expressed in white sugar, others in raw sugar and others in tel quel sugar. Global statistics are normally expressed in raw sugar; nevertheless, the ISO has been expressing balance statistics in tel quel since 2015. The conversion rate from raw to white, given by the International Sugar Council and used here by ISO, is 0.92. The conversion rate from white to raw is 1.09.

Sources: I.S.O. - S.N.F.S.

◆ Sugar worldwide 2024-2025



Of the **108 sugar-producing countries in the world**, some of them grow only **cane sugar** (like Brazil and India) while others grow only **beetroot** (such as Russia). Some countries grow **both sugar cane and beetroot** (China, the U.S. and Morocco). The **sugar coming from sugar cane** makes up **nearly 80%** of the world's sugar production.

The sugar produced in **France comes mostly from beetroot**, in mainland France, and the rest comes from sugar cane grown in the overseas departments

◆ Sugar worldwide 2024-2025

The ten largest producers

Account for 78% of world sugar production, i.e. 136.6 million tonnes of sugar (tel quel value):



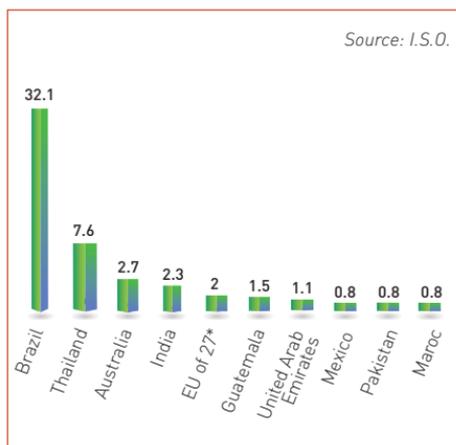
The ten largest users

Represent 60% of worldwide sugar consumption, i.e. 107.5 million tonnes of sugar (tel quel value):



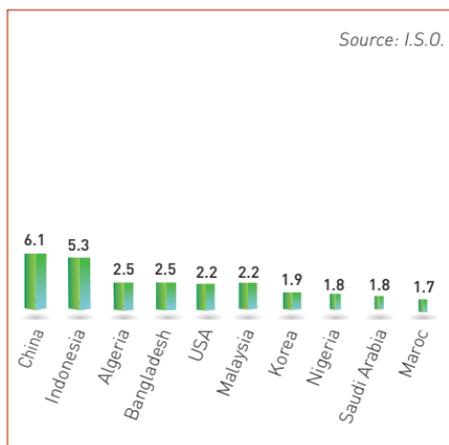
The ten largest exporters

Exports (million tonnes of tel quel sugar):



The ten largest importers

Imports (million tonnes of tel quel sugar):



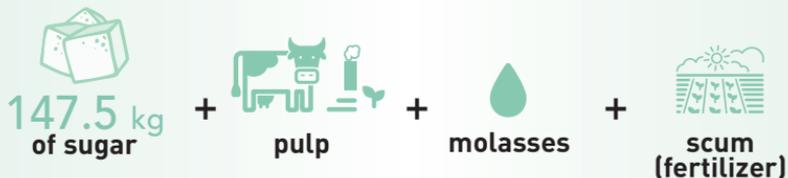
*Source: European Commission

OTHER BY-PRODUCTS

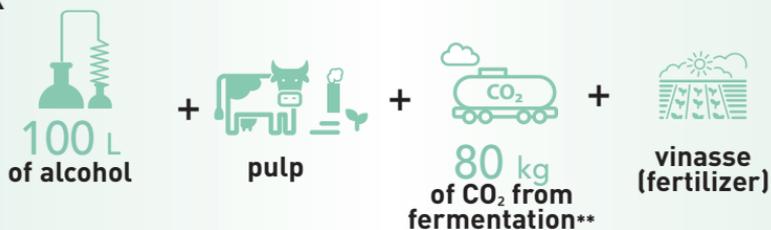


A tonne of sugar beet produces

(for a sugar content of 160 kg)



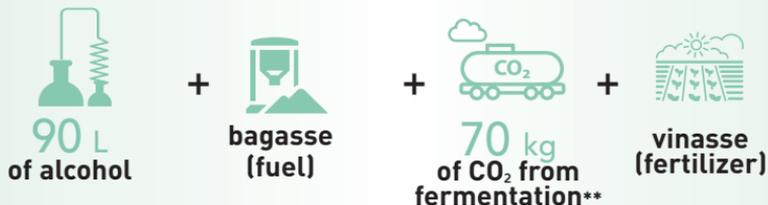
OR



A tonne of sugar cane produces



OR



* Historical baseline figure.

** CO₂ comes from the plant that captured it from the air.

◆ By-products in France and Europe

Pulpes

Once all the sugar has been removed by diffusion in warm water, the beet - now called pulp - is used in animal feed. Rich in vitamins, proteins and minerals, it also contains the residual sugar. This composition is an ideal feed for animals, especially ruminants which consume it fresh or dehydrated.

The high energy content of pulp is ideal for replacing fossil-derived gas as part of the transition to decarbonisation. In addition, it can have a number of industrial applications, including as an opacifying agent in paper pulp, isolation materials for the construction industry and for the filtration of industrial effluents.

Pulp production in France

2023-24 Campaign	Tonnage of dry materials	% compared to 28 EU country production
Compressed pulp	974,000	35%
Dehydrated pulp	422,000	16%

Sources: A.R.T.B., C.G.B., U.S.I.C.A., C.I.B.E.

Molasses

Molasses is the end product for both cane and sugar beet - non-crystallised, viscous and highly-coloured. It is used to help fermentation in the production of alcohol, yeasts or micronutrients and in compound animal feeds.

■ Production by the 28 EU Member States: **3,500,000 tonnes***

■ Production in Reunion: **51,245 tonnes in 2024**

■ Production in the French West Indies:

- Martinique: **278 tonnes in 2024**

- Guadeloupe (GARDEL + SRMG): **13,358 tonnes in 2024**

Sources: CEFS, Reunion sugar syndicate; Martinique: company data; Guadeloupe: company data, Agreste.

Bagasse

Bagasse is a lignocellulosic residue obtained after grinding canes to extract the sugar which is now basically used as fuel in sugar-plant boilers.

Production in Reunion: **358,010 tonnes in 2024**

Production in Martinique: **8,230 tonnes in 2024**

Production in Guadeloupe (GARDEL + SRMG): **97,516 tonnes in 2024**

Sources: Reunion sugar syndicate; Martinique: company data; Guadeloupe: company data.

Skimmings

Co-product of the sugar-making process, the skimmings are collected when purifying the juice from the beet by precipitation of impurities. Rich in mineral salts and especially calcium, they are recycled in farming as calcareous fertilizers.

Fermentation CO₂

When sugar is transformed into alcohol, the yeast produces in equal parts alcohol and CO₂ created during fermentation. This CO₂ is incorporated into carbonated drinks instead of fossilbased CO₂. In the future, it could be used to produce synthetic fuels.

*Latest available data: 2020-2021 campaign.

ALCOHOL BIOETHANOL



14.8 Mhl
of agricultural-origin
alcohol produced in France
(2023/2024 campaign)



55,000
farmers¹



1%
of usable French
farming land²



12
production sites in
France³



1.2
billion euros in revenue
in 2023/2024⁴

1- Beet and grain farmers.

2- Net of food co-products.

3- 10 distilleries producing alcohol from sugar beet and cereals (including 5 recent industrial units with a global reach) together with 2 sites devoted exclusively to rectifying and dehydrating crude alcohol.

4- Calculation factors in the price of T2 ethanol over the given timeframe.

◆ Alcohol and bioethanol in France, Europe and worldwide

Ethyl alcohol or ethanol — more commonly known as **alcohol** — is produced by fermenting and distilling agricultural substrates (from beet or cane, cereals or wine) or synthetically from ethylene.

Production in the sugar sector comes from fermenting the sugar contained in the juices extracted from the beet or cane, in syrups created by crystallisation and in the molasses. The alcohol is used in food (beverage alcohol), industry (solvent for chemistry), perfumery and pharmaceuticals for hydroalcoholic gel for instance. It is also being used more and more as fuel and takes then the name of **bioethanol**.

FRANCE

France was the largest European producer of alcohol in 2024 with a volume accounting for 20% of European production, ahead of Germany (12%) and the United Kingdom (10%) and Hungary (9%).

Sources: FranceAgrimer, F.O. Licht

Alcohol production in France (thousand hl)

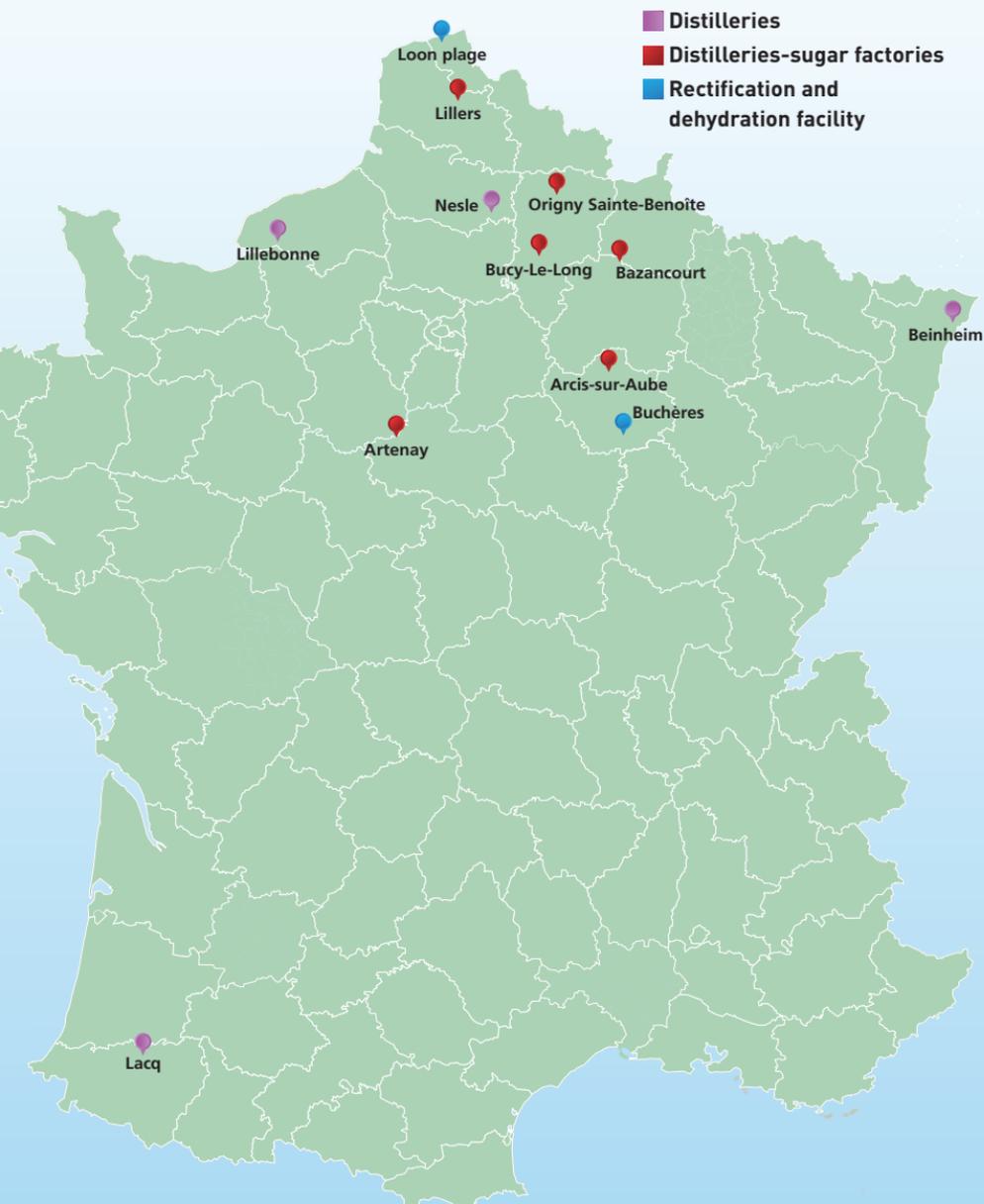
Origin	2021	2022	2023	2024
Beet*	6,500**	8,170	6,100	7,320
Cereal	8,415	8,190	7,900	7,825
Vinification (estimate)	436	474	700	570
Total	14,900	16,800	14,700	15,715

Sources: Bioéthanol France, FranceAgriMer and CGB

*Includes alcohol from molasses.

**This level is low due to the beet yellows virus that affected beetroot production in the 2020-2021 campaign

◆ Agricultural-origin alcohol sector in France



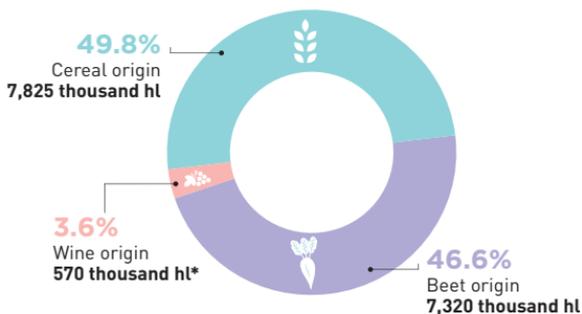
France produced 20% of European alcohol in 2024.

Two thirds of the alcohol produced in France is used as bioethanol (France or export).

FRANCE

Alcohol and bioethanol production

2024 breakdown depending on the origin (in %)



Source: FranceAgriMer

*Including 129,000 hl from crisis distillation authorised by Commission Delegated Regulation (EU) 2023/1225 of 22 June 2023.

BIOETHANOL FUEL IN FRANCE

Volume of bioethanol fuel in alcohol production in France

Million hl	2020-2021	2021-2022	2022-2023	2023-2024
Alcohol production*	14.7	15.5	15.2	14.8
Including bioethanol	9.1	10.3	10,2	10
Beet bioethanol	2.3	3.5	3,3	3.2

* Excluding wine Sources: Bioéthanol France, C.G.B.

Use of bioethanol in 2023

According to the General Directorate of Customs and Indirect Taxation (DGDDI), the volumes declared under the incentive tax relating to the use of renewable energy in transports (TIRUERT) in **2023** were as follows:

- Ethanol incorporated directly: **14.4 Mhl**
- Ethanol in ETBE: **1.9 Mhl**
- Total quantity of ethanol incorporated: **16.3 Mhl**

The incorporation rate of biofuels (ethanol, the ethanol component of ETBE and bio-based petrol) in petrol, after applying double-counting rules, was 9.77% by energy in 2023 according to the TIRUERT report published by the DGDDI (French General Directorate of Customs and Indirect Taxes).

Goals for renewable energy blending in petrol in France (in energy)

France	2019	2020	2021	2022	2023	2024	2025
Objectives	7.90%	8.20%	8.60%	9.20%	9.50%	9.90%	10.50%

Source: Article 266 quindecies of the French Customs Code (TIRUERT).

Moreover, the TIRUERT stipulates that residue ethanol derived from residual starch, along with 50% of ethanol produced from second-run low-grade sewage (EP2), is counted above the 7% ceiling at 0.2% in 2019, 0.4% in 2020, 0.8% in 2021, 1% in 2022 and 2023, 1.1% in 2024 and 1.2% in 2025.

Blending of biofuels in petrol in France (including double counting)*

Bioethanol and others**	2018	2019	2020	2021	2022	2023
(% petrol)	7.82%	7.95%	8.20%	8.63%	9.12%	9.77%

* Based on the DGDDI's TIRUERT report.

** Other: hydrotreated oil.

2024 SP95-E10 and Superethanol-E85 report in France

■ Superethanol-E85

The price of Superethanol-E85 is becoming increasingly attractive for motorists, with a drop of 12 cents/litre at the pump since January 2024 i.e. €0.78/litre* on average. The price gap compared to the average cost of SP95-E10 (€1.78/l) has reached €1 per litre!

In 2024, E85 accounted for 6% of the petrol market, which has grown by 7%. Accordingly, ethanol use in petrol fuels jumped by over 6%.

France has over 3,800 E85** stations, i.e. 40% of service stations, with 268 more stations (up 7%). Almost 50% of the stations are in Occitanie, PACA and Hauts de France.

The total fleet of flex-fuel E85 vehicles (factory-equipped and E85 converted) grew by 8% in 2024.

Bioethanol use in France in 2023 saved 2 million tonnes of CO₂, equivalent to the output of 1 million cars; in 2024, it offset the equivalent of €640 million in petroleum product consumption (850,000 toe)***.

* [Prix-carburants.gouv.fr](https://prix-carburants.gouv.fr) as of January 2025.

** Stations registered on prix-carburants.gouv.fr

*** Source: <https://carbure.beta.gouv.fr/>

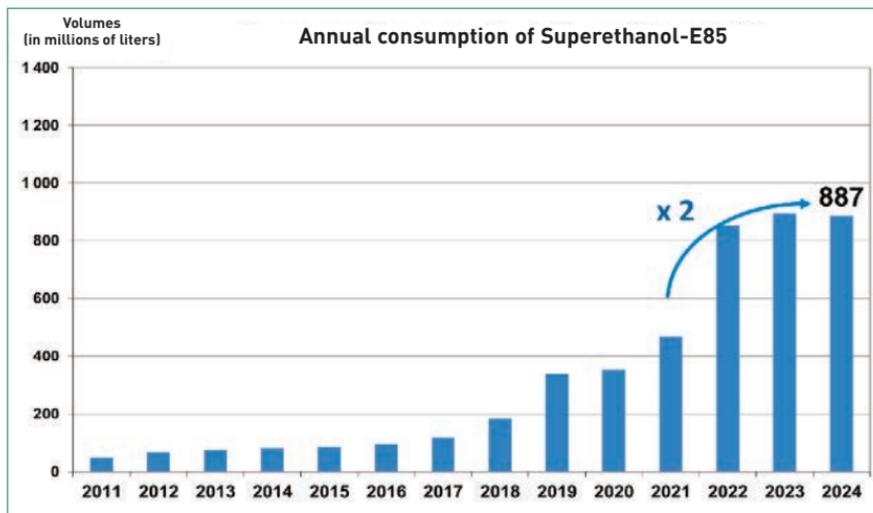
State-approved E85 conversion kits:

In 2024, the E85 compatible fleet increased by 8% from 371,000 to 400,000 E85 vehicles including:

- 252,000 petrol cars equipped with E85 conversion kits
- 148,000 E85 flex cars.

Ford offers the Kuga FHEV Flexifuel E85. Most petrol cars registered since 2001 are eligible for the installation of an approved E85 conversion kit. Four E85 kit manufacturers – Biomotors, Flexfuel Energy Development, Borel and eFlexfuel Technology – have received at least one approval for one of the 12 existing vehicle categories (see infoE85.fr).

Annual consumption of Superethanol-E85 since 2011



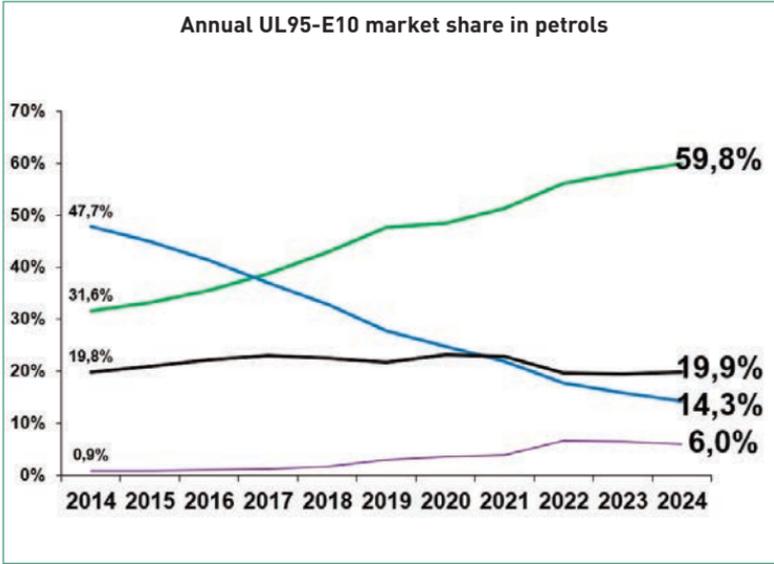
Source: Customs

■ SP95-E10

SP95-E10, which has been marketed in France since 2009, contains a minimum 90% fossil fuel and up to 10% bioethanol.

SP95-E10 has been **France's leading petrol since 2017**, and is continuing its upward trend. **Its annual market share has grown by nearly 2 points, reaching 60% in 2024.** Sold between 3 and 4 cents* cheaper on average than SP95, SP95-E10 is more attractive to motorists.

*prix-carburants.gouv.fr



Immediately available renewable energy

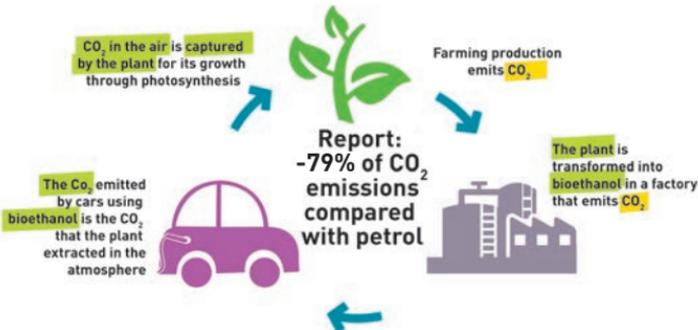
Bioethanol is already partly replacing fossil-based petrol. It helps tackle global warming. The neat bioethanol produced in Europe contributes to cutting net greenhouse gas emissions (in CO₂ equivalent) by over 79% on average compared to the fossil-based petrol it replaces [source: ePURE for 2023].

The bioethanol used in France helps prevent the release of 2 million tonnes of CO₂ — the equivalent to the emissions from 1 million cars — and saves some 800,000 tonnes of oil every year*.

*Source: DGEC CarbuRe 2023 data

A more ecological biofuel

Source : ePure 2023



◆ EUROPE

Alcohol and bioethanol production in Europe (thousand hl)

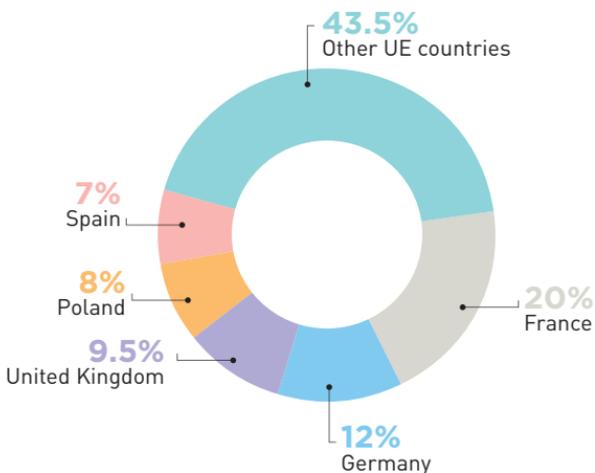
Countries	2020	2021	2022	2023	2024*
 France	16.900	15.300	16.900	14.700	15.700
 Germany	11.000	10.300	10.800	10.300	9.800
 United Kingdom	6.000	5.700	7.300	7.800	7.600
 Poland	4.170	4.500	5.200	5.500	6.500
 Spain	5.200	5.900	5.300	5.500	5.500
 Other EU countries	32.730	35.300	34.500	32.500	34.500
Total	76.000	77.000	80.000	76.300	79.600

* Estimates

Sources: FO Licht and FranceAgriMer, with update

Breakdown of alcohol and bioethanol production in 2024 (estimates)

(percentage)



Sources: F.O. Licht, European Commission

In Europe, bioethanol is mixed with petrol, either pure or after processing into ETBE (ethyl-tert-butyl-ether compound of half ethanol and half isobutylene, a petroleum by-product).

Agricultural alcohol uses in Europe

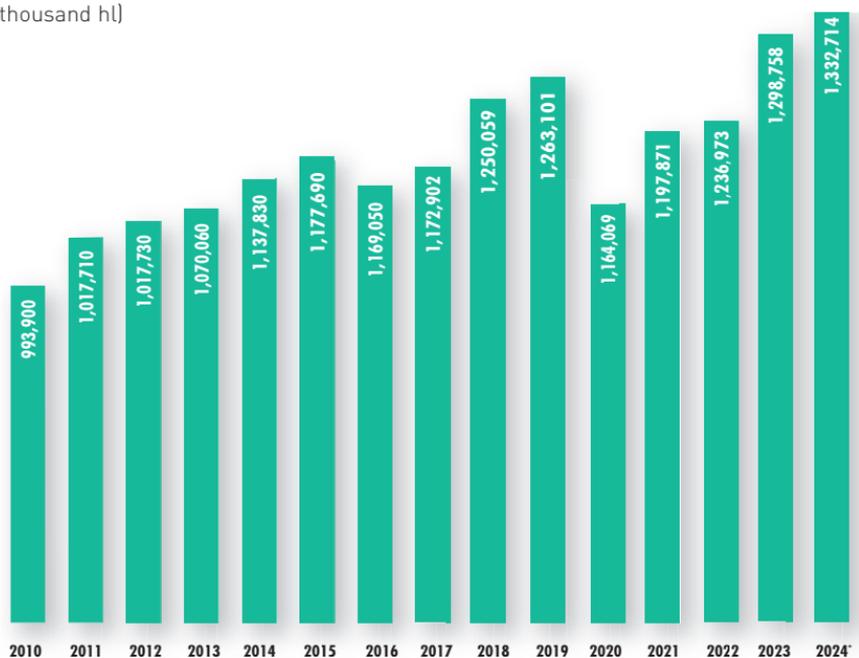
Uses (Mhl)	2022		2023	
Food	10.8	16%	9.8	15%
Industrial/Other	12.2	18%	11.1	17%
Fuel	44.2	66%	45.4	68%
Total	67.2	100%	66.3	100%

Source: European Commission, alcohol balance sheet

◆ WORLD

Changes in worldwide alcohol production (including bioethanol)

(thousand hl)



* Estimation

Source: F.O. Licht

Ethanol and alcohol in the world

The 5 largest ethanol and alcohol producers (in thousands of hectolitres)

Countries	2020	2021	2022	2023	2024*
 United States	545,207	586,428	600,067	609,310	612,650
 Brazil	327,012	298,131	305,387	352,736	367,906
 China	94,500	102,000	101,000	100,280	100,470
 EU + United Kingdom	76,000	77,000	80,000	76,300	79,600
 India	35,900	45,950	60,400	71,640	84,000
 Rest of the world	85,450	88,362	90,119	88,492	88,088
Total	1,164,069	1,197,871	1,236,973	1,298,758	1,332,714

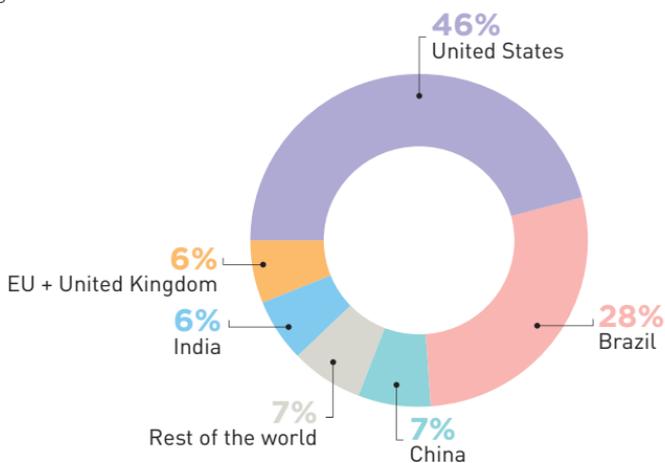
* Estimates

Source: F.O. Licht

The ten largest producers accounted for 95% of the total volume of world alcohol production in 2024.

Breakdown of alcohol production (including bioethanol) in 2024

(percentage)



Sources: F.O. Licht, European Commission

KEY FIGURES

CONSTANTS

- 1 hectolitre (hl) of bioethanol = 78.9 kg
- 1 hectolitre (hl) of petrol = 75 kg
- 1 tonne (t) of bioethanol = 12.6 hl

LOWER CALORIFIC VALUE (LCV)

- In volume, bioethanol LCV = 21.285 MJ/l
- In volume, petrol LCV = 32.020 MJ/l

ETHANOL/PETROL ENERGY RATIO = 0.66

- 1.5% of bioethanol in volume has to be added to incorporate 1% of bioethanol in LCV in petrols.
- Bioethanol sector: 79% less greenhouse gas than the petrol sector (ePURE 2023)

KEY FIGURES: AVERAGE OVER 5 YEARS



1 hectare of beet

- = 81.3 tonnes of beets
- = 8,100 litres of ethanol
- = 6.4 tonnes of ethanol
- = 4.1 tonnes oil equivalent

Sources: A.D.E.M.E., C.G.B., Bioéthanol France.

bioéthanol
Revolons plus vert et moins cher

bioethanolcarburant.com

Cultures Sucre has produced this statistical memo by consolidating the figures supplied by the following bodies:

- **AGRESTE**, Paris, tel. +33 (0)1 49 55 40 11, www.agreste.agriculture.gouv.fr
(Agriculture Ministerial Statistical Department)
- **A.R.T.B., Paris**, tel. +33 (0)1 44 69 41 84, www.artb-france.com
(Beet Production Technical Research Association)
- **Bioéthanol France, Paris** tel. +33 (0) 1 49 52 66 97, bioethanolfrance.fr
(ex-SNPAA)
- **C.E.F.S., Brussels, Belgium**, tel. +32 (2) 762 0760, www.cefs.org
(European Association of Sugar Manufacturers)
- **C.G.B., Paris**, tel. +33 (0)1 44 69 39 00, www.cgb-france.fr
(General Confederation of Beet Growers)
- **C.I.B.E., Brussels, Belgium**, tel. +32 (2) 50 46 090, www.cibe-europe.eu
(International Confederation of European Beet Growers)
- **EUROPEAN COMMISSION, Paris**, tel. +32 2 299 11 11, www.ec.europa.eu
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- **FranceAgriMer, Paris - Montreuil**, tel. + 33 (0)1 73 30 30 00, www.franceagrimer.fr
(National Institute for Agricultural and Seafood Products)
- **ITB**, tel. + 33 (0)1 42 93 13 38, www.itbfr.org
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