







### List of EU and EFTA countries

| BE | Belgium  |
|----|----------|
| BG | Bulgaria |
| CZ | Czechia  |
| DK | Denmark  |
| DE | Germany  |
| EE | Estonia  |
| IE | Ireland  |
| EL | Greece   |

| ES | Spain      |
|----|------------|
| FR | France     |
| HR | Croatia    |
| IT | Italy      |
| CY | Cyprus     |
| LV | Latvia     |
| LT | Lithuania  |
| LU | Luxembourg |

| HU | Hungary     | SK | Slovakia      |
|----|-------------|----|---------------|
| МТ | Malta       | FI | Finland       |
| NL | Netherlands | SE | Sweden        |
| AT | Austria     |    |               |
| PL | Poland      | IS | Iceland       |
| РТ | Portugal    | LI | Liechtenstein |
| RO | Romania     | NO | Norway        |
| SI | Slovenia    | СН | Switzerland   |
|    |             |    |               |



### THE EUROPEAN FOOD CHAIN

2024 EDITION

#### Printed by Imprimerie Bietlot in Belgium

Manuscript completed in November 2024

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Luxembourg: Publications Office of the European Union, 2024

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#### Theme: Agriculture and fisheries Collection: Key figures

Print: ISBN 978-92-68-20466-5 ISSN: 2811-9061 doi:10.2785/6201621 KS-01-24-000-EN-C PDF: ISBN 978-92-68-20465-8 ISSN: 2811-9053 doi:10.2785/5897613 KS-01-24-000-EN-N

# Foreword

Key figures on the European food chain responds to the public's interest in the Farm to Fork Strategy of the European Commission. This strategy is an integral part of the European Green Deal that aims to make Europe the 1st climate-neutral continent by 2050. The Farm to Fork Strategy seeks to establish a sustainable food system in the European Union (EU) that is fair, healthy and environmentally friendly.

The common agricultural policy (CAP) plays a pivotal role in the EU's agricultural sector; it sets both economic and social goals, while incorporating sustainability and environmental concerns. Recent reforms of the CAP have encouraged farmers to adopt greener practices by allocating more funds to conservation and biodiversity. The CAP also supports farmers' livelihoods, while ensuring food supply and security through support measures that stabilise agricultural markets. Finally, it contributes to EU trade negotiations by setting the terms that help maintain quality and safety standards for agricultural imports and exports. Likewise, the common fisheries policy (CFP) aims to contribute to a healthier marine environment, to maintain profitability in the sector, to support the revitalisation of coastal communities and improve their economic prospects.

Launched in January 2024, the <u>Strategic Dialogue</u> on the Future of EU Agriculture brought together 29 stakeholders from the agri-food industry, civil society, rural communities and academia. The group delivered its final report in September 2024. Among other aspects, it underlined the need to

• strengthen the position of farmers in the food value chain



- support and promote sustainable farming practices – including the empowerment of consumers to choose sustainable and balanced diets
- reinforce resilience, for example through risk/crisis management tools
- promote generational renewal and gender equality
- facilitate access to knowledge and skills.

Key figures on the European food chain offers a broad set of indicators from Eurostat's extensive data collection. These statistics may be used to underpin and address policy decisions, for example, in relation to food inflation and food security. The publication starts with an overview of production, including agriculture and fisheries as well as the processing of food and beverages. The 2nd part covers trade, transport and distribution, including the serving of food and beverages in bars, restaurants and similar establishments. The 3rd and final part concerns the consumption of food and beverages as well as environmental issues at various stages of the food chain.

I hope that you find this publication interesting and useful.

### Arturo de la Fuente Nuño

(Acting) Director of sectoral and regional statistics, Eurostat

### Abstract

*Key figures on the European food chain* provides a selection of indicators on the food chain, from primary production in agriculture and fisheries through to consumption. Data are presented for the European Union (EU), EU countries and European Free Trade Agreement (EFTA) countries.

For some readers, this publication may offer an introduction to agriculture, fisheries and food chain statistics, while others can use it as a starting point to explore further a wide range of data and information. These are freely available on <u>Eurostat's website</u> and in *Statistics Explained*.

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INFORMA s.à r.l. working under contract for Eurostat

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Eurostat's website: https://ec.europa.eu/eurostat Statistics Explained: https://ec.europa.eu/eurostat/statistics-explained

### Acknowledgements

The editor of this publication would like to thank colleagues in Eurostat who were involved in its preparation.

## Contents



3. Consumption and environment

# Introduction

Eurostat is the statistical office of the European Union (EU). Our mission is to provide high quality statistics on Europe, offering the general public and decisionmakers key information on the EU's economy, society and environment.

*Key figures on the European food chain* describes the food chain of the EU and the <u>European Free Trade</u> <u>Association (EFTA)</u> countries. The chain stretches from primary production in agriculture and fisheries through to consumption. For most datasets, statistics are available until 2022 or 2023.

### Policy background

Within the context of the <u>European Green Deal</u> – which sets out how to make Europe the 1st climateneutral continent by 2050 – the <u>Farm to Fork Strategy</u> aims to make food production systems within the EU more sustainable, recognising the complex links between healthy people, healthy societies and a healthy planet. The Farm to Fork Strategy aims to accelerate the transition to a sustainable food system. Agriculture, fisheries and aquaculture, as well as the wider food value chain, will need to play their part in achieving this transition. Sustainable food systems have a neutral or positive environmental impact, help combat climate change, reverse biodiversity decline, ensure food security, nutrition and public health, while promoting equitable economic returns and fair trade practices. As such, the Farm to Fork Strategy is aligned with the <u>United Nations' sustainable</u> development goals (SDGs) that are designed to foster ecological, health and social advantages, while advancing economic prosperity.

Launched in 1962, the EU's <u>common agricultural</u> policy (CAP) is funded from the EU's budget. The CAP is designed as a partnership between agriculture and society that seeks to ensure the stable supply of food and safeguard farmers' income, while protecting the environment, rural landscapes and biodiversity.





### Common agricultural policy financing relative to agricultural factor income

Note: factor income based on an average for 2021-23.

In 2022, CAP financing accounted for almost a quarter (24.6%) of the EU's total expenditure. Direct payments (€38.2 billion) were the largest expenditure item, followed by rural development (€13.9 billion) and market measures (€2.6 billion).

When expressed relative to the EU's agricultural factor income at <u>basic prices</u>, which is a measure of the income derived from agricultural activities available for the remuneration of own and rented production factors, CAP financing was 28.6% in 2022; there were considerable variations across EU countries.

The common agricultural policy 2023–27 entered into force on 1 January 2023. It has a budget of €387 billion, split between the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD). The former primarily provides income support for farmers, coupled with market measures to Source: Eurostat (online data code: aact\_eaa01) and European Commission, Directorate-General for Agriculture and Rural Development

stabilise agricultural markets. The latter is focused on rural development, aiming to boost agricultural competitiveness, sustainability, and rural community support.

During the period 2023 to 2027, the CAP will provide increased funding for eco-schemes, climatefriendly farming practices and the preservation of biodiversity. Among other actions, it aims to redistribute income support in favour of smaller farms and younger farmers, while promoting gender equality and strengthening the position of farmers in the food supply chain.

The CAP 2023 to 2027 is designed to give EU countries more flexibility to redistribute funds according to local conditions by developing <u>national</u> <u>strategic plans</u>. Overall, 40% of total CAP expenditure during the period 2023 to 2027 will be for climate action.



### Structure of the publication

Key figures on the European food chain provides an overview of the wealth of information about the food chain which is available on Eurostat's website and in its online database.

The publication is divided into 3 parts.

- The 1st part provides an overview of production. While the main focus is on the primary production of agricultural and fishery products, including structural information about farms, the fishing fleet and employment in these activities, it also includes downstream processing in food and beverages manufacturing.
- The 2nd part focuses on distributive activities, such as the wholesaling, retailing and serving of food and beverages. It also includes sections on the import and export of agricultural products, food and beverages, as well as their transport.

• The 3rd part includes information about the end of the food chain, looking at human consumption of food and beverages and selected environmental issues (for example, fertiliser and pesticide use, greenhouse gas emissions in agriculture, and waste within the food chain).

This publication provides a concise overview of the EU's food chain. A number of hyperlinks have been included at the end of some sections; these lead to more detailed analyses in the form of <u>Statistics Explained</u> articles on Eurostat's website.

### The food chain

(EU, 2022) Food and Food and Food and beverage beverage Agriculture beverage wholesaling serving processing and retailing activities Number of holdings/ enterprises 9.1 0.3 1.1 1.6 (million) Employment 8.7 4.7 8.5 8.4 (million) Value added 218.1 265.9 326.5 180.7 (€ billion)

Note: value added at basic prices for agriculture. Value added at factor cost for the other parts of the food chain. For agriculture: number of holdings and employment, 2020.

Source: Eurostat (online data codes: ef\_m\_farmleg, aact\_eaa01 and sbs\_sc\_act)



### Data extraction and coverage

### **Data extraction**

The statistical data presented in this publication were generally extracted at the end of September 2024. Data for crops, agricultural output value and economic performance, as well as the structural business statistics and Prodcom data used in the sections on the processing of food and beverages and wholesale, retail and services provision of food and beverages were extracted at the start of November 2024. Eurostat's <u>online database</u> may contain revised data.

#### Spatial data coverage

This publication presents information for the EU (a sum/average covering the 27 EU countries) as well as individual EU and EFTA countries.

The countries in the figures are usually ranked according to the values for the indicator(s) illustrated.

References in the publication to northern, eastern, southern or western Europe are based on groupings in EU vocabularies.

The map on the inside cover page shows EU and EFTA countries, pinpointing their capital cities.

### Codes and names for EU Member States and EFTA countries

| BE | Belgium    | HU | Hungary       |
|----|------------|----|---------------|
| BG | Bulgaria   | MT | Malta         |
| CZ | Czechia    | NL | Netherlands   |
| DK | Denmark    | AT | Austria       |
| DE | Germany    | PL | Poland        |
| EE | Estonia    | РТ | Portugal      |
| IE | Ireland    | RO | Romania       |
| EL | Greece     | SI | Slovenia      |
| ES | Spain      | SK | Slovakia      |
| FR | France     | FI | Finland       |
| HR | Croatia    | SE | Sweden        |
| IT | Italy      |    |               |
| CY | Cyprus     | IS | Iceland       |
| LV | Latvia     | LI | Liechtenstein |
| LT | Lithuania  | NO | Norway        |
| LU | Luxembourg | СН | Switzerland   |

### Economic activity coverage

The <u>statistical classification of economic activities in</u> <u>the European Community</u> (NACE Rev. 2) is used to define <u>economic activities</u>. Within this publication, the following terms related to economic activities are applied, all based on the NACE Rev. 2 classification.

- Agriculture, forestry and fishing Section A
  - Agriculture (formally crop and animal production, hunting and related service activities) – Division 01
  - Fishing and aquaculture Division 03
- Food and beverage processing
  - Manufacture of food products Division 10
  - Manufacture of beverages Division 11
- Wholesaling, retailing and serving of food and beverages
  - Food and beverage wholesaling (includes tobacco wholesaling)
    - Food and beverage wholesale agents Class 46.17
    - Food and beverage wholesale resellers Group 46.3
  - Food and beverage retailing (includes tobacco retailing)
    - Non-specialised in-store food and beverage retail Class 47.11
    - Specialised in-store food and beverage retail Group 47.2
    - Food and beverage retail via stalls and markets – Class 47.81
  - Food and beverage serving (covers restaurants, bars, cafés and other food and beverage outlets) Division 56

Data for food and beverage processing are compared with the manufacturing total, which is defined in NACE as Section C. Data for the wholesaling, retailing and serving of food and beverages are compared with the total for market services, which is defined as NACE Sections G to N and P to R and Divisions 95 and 96.

For more information about the NACE Rev. 2 classification, please refer to Eurostat's dedicated section on dedicated section on NACE.



### Temporal data coverage

If data for a reference year (or <u>reference period</u>) aren't available for a country, data are shown for the next most recent reference year (subject to availability). These exceptions are footnoted.

### Notes and flags

Notes and flags are used to explain and define specific characteristics of data. In this publication, these have been restricted as far as possible to leave more space for illustrating the data. This publication includes only the main notes needed to interpret the data and to highlight when data for 1 year have been replaced by data for another. Data not shown in individual figures may simply not be available or may be confidential. The full set of notes and flags is available on Eurostat's website via the online data code(s) presented for each map or figure.

### Accessing European statistics

The simplest way to access Eurostat's wide range of statistical information is through <u>Eurostat's</u> <u>website</u>. Eurostat provides users with free access to its databases and <u>publications</u>. The website is updated daily and presents the latest and most comprehensive statistical information available on the EU as well as individual EU, EFTA and enlargement countries (for some datasets, information may be provided for a wider range of non-EU countries).

You can use online data codes, such as <u>ef\_lus\_main</u>, to find the most recent data in <u>Eurostat's online</u> <u>database</u> or using the Eurostat <u>website's search</u> <u>function</u>. In this publication these online data codes are given as part of the source below each illustration.

Some of the indicators presented in this publication can be complex. The *Statistics Explained* website provides a comprehensive online <u>glossary</u> containing definitions of a broad range of statistical indicators, concepts and terms. Whenever a specialist term is used in the text, it's linked to its glossary definition.







# Farms and farm labour force







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The area used for agricultural production is known as the <u>utilised agricultural area</u>. This is somewhat smaller than the farm area, which also includes wooded areas or land on farms that is unsuitable for production; examples are land covered by buildings, roads and water areas.

Farming principally concerns growing crops and raising livestock. It provides key primary ingredients for food and drink. Structural statistics on farmland and <u>farms</u> are taken from the 2020 <u>agricultural census</u>. As part of of the World Census of Agriculture, this exhaustive survey is carried out every 10 years.

The EU's utilised agricultural area covered 157.4 million hectares of land in 2020, equivalent to 38.4% of its land area. The share of the utilised agricultural area within the land area ranged from less than a tenth in Sweden and Finland to more than half in Luxembourg, the Netherlands, Hungary, Romania and Denmark, and peaked at 71.7% in Ireland. In absolute terms, France (27.4 million hectares; 17.4% of the EU total) and Spain (23.9 million hectares; 15.2%) had the largest utilised agricultural areas.

In 2020, 62.3% of the EU's utilised agricultural area was <u>arable land</u> used to produce crops, principally for human and animal consumption, while 30.5% was <u>permanent</u> <u>grassland</u>, mainly used to provide fodder and forage for animals. Almost all of the remaining agricultural area was used for <u>permanent crops</u> (7.1%), such as fruit (including grapes) and olives.



### Distribution of farms and farmland by farm size

(% share of total, EU, 2020)



Source: Eurostat (online data code: ef\_m\_farmleg)

There were 9.1 million farms in the EU in 2020. Almost 1 in 3 (31.8%) of these were located in Romania, with double-digit shares also recorded for Poland (14.4%), Italy (12.5%) and Spain (10.1%).

The average (mean) size of a farm in the EU in 2020 was 17.1 hectares. However, almost 2 in 3 (63.8%) of the EU's farms were smaller than 5.0 hectares in size. By contrast, farms with at least 100.0 hectares accounted for 3.6% of the total number of farms across the EU. Collectively, these relatively large farms cultivated just over half (51.8%) of the total area used for agricultural production. As such, there were very many semi-<u>subsistence</u> farms and relatively few large ones.

### Overall change in farms and farmland by farm size



Source: Eurostat (online data code: ef\_m\_farmleg)

There were 3.0 million fewer farms in the EU in 2020 than in 2010, a decrease of 24.8% (<sup>1</sup>). The vast majority of this fall in farm numbers concerned farms that were smaller than 5.0 hectares in utilised agricultural area, with 2.7 million fewer farms in this category. There was however an increase in the number of farms with at least 100.0 hectares, up around 40 000 farms (or 13.9%). As the overall area used for agricultural production in the EU was relatively stable between 2010 and 2020 (a decrease of 2.2%), the falling number of farms among all size categories except for the largest reflects mergers or takeovers of farms.

<sup>(&#</sup>x27;) Some of this observed change may reflect methodological differences in the statistics for 2010 and 2020 (in particular, changes in survey thresholds).







Based on the Food and Agriculture Organization (FAO) definition, a family farm is 'an agricultural holding which is managed and operated by a household and where farm labour is largely supplied by that household'. The term 'family farm' is used here to refer to any farm that is under family management and where family workers provide more than half of the agricultural labour.



Note: 0.8% of farms could not be classified as specialist holdings.

*Source:* Eurostat (online data code: <u>ef\_m\_farmleg</u>)

In 2020, almost 3 out of 5 (58.2%) EU farms were <u>specialist crop farms</u>. Just over 1 in 3 (34.4%) were active in field cropping (the first 2 subcategories), more than 1 in 5 (21.5%) were specialised in <u>permanent crops</u> (the next 4 subcategories), while a smaller share (2.3%) were specialised in horticulture.

<u>Specialist livestock farms</u> accounted for slightly more than 1 in 5 (21.7%) of the EU's farms. Dairying was the

most common livestock specialisation (5.2% of all farms), followed by cattle-rearing and fattening (4.3%), poultry (3.9%) and sheep, goats and other grazing livestock (3.6%). Mixed farming comprises farms with crops and livestock, farms with various types of crops, and farms with various types of livestock. As a whole, mixed farms accounted for slightly fewer than 1 in 5 (19.3%) of the EU's farms.

### **Organic** area



(% share of total utilised agricultural area, 2012 and 2022)

Note: includes fully converted areas and areas under conversion. EU and AT: 2022, estimates made for the purpose of this publication. NO: 2021 instead of 2022. IS: 2013 instead of 2012 and 2020 instead of 2022.

In 2022, the area used for organic agricultural production within the EU was estimated at 16.8 million hectares; this was equivalent to 10.5% of the EU's total utilised agricultural area. Organic farming accounted for around a quarter of the utilised agricultural area in Austria (27.2%) and Estonia (23.4%). By contrast, there were 5 EU countries where the share of organic farming was below 5.0%; the lowest shares were in Malta (0.6%), Bulgaria and Ireland (both 2.2%).

Source: Eurostat (online data code: org\_cropar)

The EU's organic area increased by 7.4 million hectares between 2012 and 2022 (up 78%). Its share of the utilised agricultural area rose from 5.9% to 10.5%. During this period, this share increased in every EU country, except for Poland. The biggest increase was recorded in Portugal, where the share of organic area rose 13.8 <u>percentage points</u> (up from 5.5% to 19.3%).



(%, 2022)



Note: estimates made for the purpose of this publication. The shares do not sum to 100.0% due to rounding. *Source:* Eurostat (online data code: org\_cropar) Organic farming is a method that aims to use natural substances and processes and to do so in a more sustainable way than conventional farming. The *Farm to Fork Strategy* set an objective that at least 25% of the EU's agricultural land should use organic processes by 2030.

In 2022, 56.3% of the EU's total organic area was distributed across 4 EU countries: France (16.7%), Spain (15.9%), Italy (13.9%) and Germany (9.7%). Together these countries had 9.5 million hectares of land used for organic agricultural production.

More information: organic farming statistics.



### Age and sex of farm managers

(% share of all farm managers, EU, 2020)



Note: one person per farm is identified as the farm manager.

In 2020, around 1 in 3 (33.2%) <u>farm managers</u> on the EU's 9.1 million farms were aged 65 or over. These older farmers tended to work on very small (semi-subsistence) and small farms, managing 16.9% of

Source: Eurostat (online data code: ef\_m\_farmang)

the EU's utilised agricultural area. By contrast, 11.9% of farm managers in the EU were younger than 40; together, they managed 17.6% of the utilised agricultural area.

The number of farm managers in the EU decreased

24.8% between 2010 and 2020. The count of male farm managers declined at a faster rate (down 28.3%) than for female farm managers (down 15.8%). The number of farm managers decreased for both

### Overall change in the number of farm managers



sexes and for all age classes during the period under consideration. The largest decreases were for the number of male farm managers aged 25 to 34 years (down 38.3%) and 35 to 44 years (down 44.1%).



Note: 1 person per farm is identified as the farm manager. More detailed information for the age classes of 35 to 39 years and 40 to 44 years doesn't exist for 2010.

Source: Eurostat (online data code: ef\_m\_farmang)

### More information: farm managers and the agricultural labour force.

Key figures on the European food chain – 2024 edition 🖊 eurostat

(%, EU, 2010-2020)



### Employment in agriculture, hunting and related service activities

(% share of total employment, 2012 and 2022)

Note: EU, DE, ES, FR, IT, LV, LT, PL, PT, RO, SE, LI and NO, 2021 instead of 2022. LI: 2013 instead of 2012.

Source: Eurostat (online data code: <a href="mailto:nama\_10\_a64\_e">nama\_10\_a64\_e</a>)

In 2021, there were 8.6 million people working (<sup>2</sup>) in agriculture (including hunting and related service activities) across the EU; this was equivalent to 4.1% of total <u>employment</u>. As the number of farms in the EU has declined over time, so has agricultural employment. Agriculture's share of total employment fell from 5.3% in 2012 to 4.1% in 2021.

There were 9 eastern, southern and <u>Baltic</u> countries where the share of agriculture in total employment was above the EU average. Agriculture accounted for a particularly high share of total employment in Romania – more than 1 in 5 people (20.7%) in 2021. In 2022, the share of agriculture in total employment was also relatively high in Bulgaria (14.5%) and Greece (9.9%). Consequently, there were 18 EU countries – including all of the western and <u>Nordic</u> EU countries – where the share of agriculture in total employment was below the average. At the bottom end of the range, agriculture accounted for 0.7% of total employment in Luxembourg and Malta.

Since 2012, the share of agriculture in total employment has decreased in every EU country. The largest decreases were in Romania (down 9.3 percentage points; 2012 to 2021), Croatia (down 4.7 points; 2012 to 2022) and Portugal (down 4.2 points; 2012 to 2021).

<sup>&</sup>lt;sup>(2)</sup> Note that simple counts of employed people don't take account of the extent of part-time work in different economic activities.



### Agricultural workforce

(EU, 2023)



Incidence rates of accidents at work (per 100 000 persons in employment)



In many respects, the EU's agricultural workforce differs from the overall workforce. Average working hours were typically longer for agriculture, standing at 40.9 hours in 2023, compared with 35.7 hours. This pattern was reinforced by the fact that 23.2% of people working in agriculture worked long hours (49 hours or more per week), around 3 times as high as the overall average (7.0%).

Slightly more than a third (35.2%) of people working in agriculture across the EU had a low level (no more than a lower secondary education) of educational attainment in 2023; this was more than double the average (16.5%) for all people in employment. By contrast, more than a third (37.8%) of all people in employment had a high (tertiary) level of educational attainment, which was almost 3 times as high as the share (13.3%) recorded for agriculture.

In 2023, the share of family workers (9.6%) in the EU's agricultural workforce was considerably higher than the overall share for the total workforce (0.7%). There were also sizeable disparities for <u>self-employment</u>, with more than half (54.6%) of those employed within agriculture being self-employed, compared with an average of 13.8%.

In 2021, there were 4.5 fatal accidents per 100 000 people employed across the EU within agriculture, which was 2.6 times as high as the corresponding rate for all activities (1.8 fatal accidents per 100 000 people employed).

Note: data cover all people aged 15 years and over in employment. Accidents: 2021.

Source: Eurostat (online data codes: <u>lfsa\_ewhan2</u>, <u>lfsa\_qoe\_3a2</u>, <u>lfsa\_egised</u>, <u>lfsa\_etgan2</u>, <u>lfsa\_egan22d</u>, <u>lfsa\_egaps</u>, <u>lfsa\_esgan2</u>, <u>hsw\_n2\_02</u> and <u>hsw\_n2\_01</u>) and special data extractions



# **Agricultural products**

### **Production of selected crops**

(million tonnes, EU, 2023)



Note: data are shown for selected crops; the list is not exhaustive. Fresh vegetables also include melons and strawberries.

The Farm to Fork Strategy aims to encourage a more sustainable and resilient form of farming, whereby consumers feel closer to the food that they eat, for example, by choosing sustainably sourced food. Farmers who undergo this transition are rewarded through, among other actions, financial incentives, access to premium markets, advisory services, recognition and community engagement.

<u>Crop production</u> is sensitive to weather conditions throughout the growing season and at harvest, as well as to other factors like soil quality, nutrient availability and pests; these factors impact on both yields and quality. There were exceptionally hot Source: Eurostat (online data code: apro\_cpsh1)

and/or dry weather conditions across large parts of southern Europe during 2023, while other regions experienced heavy rainfall and flooding. This led to a 2nd consecutive year of falling production levels for various types of <u>cereal</u>.

In 2023, some of the principal crops <u>harvested</u> in the EU – in quantity terms – included common wheat and spelt (125.9 million tonnes), sugar beet (110.3 million tonnes), grain maize and corn-cob mix (61.0 million tonnes), fresh <u>vegetables</u> (60.0 million tonnes; note this figure also includes melons and strawberries), potatoes (48.1 million tonnes) and barley (47.4 million tonnes).





### **Developments of crop production**

Note: estimates made for the purpose of this publication. Data are shown for selected crops that have a relatively complete time series for the EU.

When making decisions on which annual crops to sow, farmers consider agronomic factors (for example, <u>crop rotations</u> and soil conditions), the availability of labour and machinery, input costs (for example, of seeds and fertilisers), anticipated returns, and policy incentives or restrictions. These decisions impact the production of specific crops from 1 year to the next.

This annual decision-making is less relevant for farmers of permanent crops, like olives, apples and grapes. However, production levels can fluctuate sharply from year to year, and not only because of Source: Eurostat (online data code: apro\_cpsh1)

weather conditions and disease. For example, olive trees and some fruit trees have a biennial bearing, with a heavy load generally followed by a lighter load.

Across the EU, the harvested production of rape and turnip rape seeds more than doubled during the last 2 decades. Common wheat and spelt, dry pulses, and rye and maslin were the only other crops (among those shown) where production was higher in 2023 than in 2003. By contrast, the level of harvested production was notably lower for oats, olives, potatoes and durum wheat.



### Developments of output price indices for crop products

(2015 = 100, EU, 2015-23)



Note: based on indices compiled with 2015 = 100; includes estimates made for the purpose of this publication for 2021-23 that are based on more recent information available for indices compiled with 2020 = 100 (excluding Italy and Sweden).

The important role of weather conditions on the quantity and quality of harvested production tends to have a knock-on impact on agricultural prices to balance supply and demand. During 2022, <u>output</u> (or producer) prices in the EU increased at a rapid pace for most crops. Various factors influenced this, among which were poor growing conditions. However, there were also increases in the cost of fertilisers, energy and other inputs, and disruptions to global trade that were linked, in part, to the effects of the Russian military aggression against Ukraine.

*Source*: Eurostat (online data codes: <u>apri\_pi15\_outa</u> and <u>apri\_pi20\_outa</u>)

In 2023, the trend of rising prices continued for a majority of crop products. Between 2022 and 2023, the most rapid development for EU output prices was for olive oil, where prices increased 69.3%. Potatoes (up 28.8%), fresh vegetables (up 15.7%), fruits (up 14.3%) and sugar beet (up 13.8%) also recorded relatively high increases. By contrast, output price developments peaked in 2022 for <u>oilseeds</u> and oleaginous fruits, for cereals and for wine, as their respective output prices fell in 2023.

All of the crops presented had higher output prices in 2023 than in 2015.



### Share of EU production of various crops

(% based on tonnes, 2023)



Note: estimates made for the purpose of this publication. Due to rounding, not all shares sum to 100.0%.

Source: Eurostat (online data code: apro\_cpsh1)

In 2023, the harvested area of cereals across the EU was 51.0 million hectares (or 510 000 km<sup>2</sup>), with an estimated 271.6 million tonnes of production. France accounted for close to a quarter (23.7%) of the EU's cereals production.

The harvested area of potatoes in the EU was 1.3 million hectares in 2023, with production of 48.1 million tonnes. Germany was the main producer (24.1% of the EU total).

Fresh vegetables were cultivated over 2.0 million hectares of land across the EU in 2023, with production of 60.0 million tonnes. Spain (23.1% of the EU total) was the leading producer.

In 2023, the EU harvested an estimated 24.7 million tonnes of fruit, berries and nuts (excluding citrus fruit, grapes and strawberries). The main producer was Italy (20.0% of the EU total).

In 2023, the production of citrus fruit in the EU was 10.6 million tonnes. Spain was the leading producer, accounting for more than half (54.6%) of the EU's production.

The EU's production of grapes amounted to 22.4 million tonnes in 2023. Italy was the leading producer (29.7% of the EU total).

Across the EU, the production of olives was 10.1 million tonnes in 2023. Spain accounted for just over half (50.6%) of the EU total.

More information: crop statistics.



### **Developments of livestock populations**

*Source*: Eurostat (online data codes: <u>apro\_mt\_lspig</u>, <u>apro\_mt\_lscatl</u>, <u>apro\_mt\_lssheep</u> and <u>apro\_mt\_lsgoat</u>)

The EU has a sizeable livestock population. At the end of 2023, there were 133 million head of pigs, 74 million head of bovine animals (such as cattle or buffalo), and an estimated 68 million head of sheep and goats on EU farms.

Between 2013 and 2023, livestock populations across the EU declined. The total of pigs, bovine animals, sheep and goats fell by an estimated 7.0%, from 296 million to 275 million. The largest overall decrease (in percentage terms) was for the number of goats (down 15.0%), while the smallest decrease was for the number of bovine animals (down 5.5%).

### Developments of output price indices for animals



Note: based on indices compiled with 2015 = 100; includes estimates made for the purpose of this publication for 2021-23 that are based on more recent information available for indices compiled with 2020 = 100 (excluding Italy and Sweden).

EU output price developments for pigs were quite volatile (in contrast to those for other types of livestock). There were particularly strong increases in 2022 and 2023, as output prices for pigs rose 26.2% and 23.1%, respectively. By contrast, prices for cattle, sheep and



goats, and poultry were relatively stable during the period 2015 to 2020. However, they (also) rose strongly in 2021 and 2022, before slowing somewhat. The latest annual price increases in 2023 were 6.3% for sheep and goats, 2.4% for poultry and 1.6% for cattle.



### **Meat production**

(1 000 tonnes, EU, 2023)



Note: estimates made for the purpose of this publication. Source: Eurostat (online data code: <a href="mailto:apro\_mt\_pann">apro\_mt\_pann</a>) Better animal welfare improves animal health and food quality. Under the *Farm to Fork Strategy*, the European Commission plans to revise legislation on the <u>slaughter of animals</u> so that it is aligned with scientific evidence, broadening its scope, making it easier to enforce, and ultimately ensuring a higher level of animal protection/welfare.

In 2023, the production of pigmeat within the EU was 20.6 million tonnes, just over half (50.6%) of the EU's meat production. The estimated production of poultrymeat was 13.3 million tonnes, almost twice as much as the quantity of bovine meat (6.4 million tonnes); the production quantities of sheepmeat and goatmeat were much smaller.

### Developments of the quantity of meat production



Note: estimates made for the purpose of this publication.

During the period 2008 to 2020, there was a rapid and relatively uniform increase in the production of poultrymeat, as EU output increased overall by an estimated 38.9%. This pattern reversed in 2021 (production down 2.9%), with the level of poultrymeat production continuing to fall in 2022 (down 1.5%), before partially rebounding in 2023 (up 2.3%).

Across the EU, pigmeat production grew most years from a relative low in 2009 through to 2021, rising overall by 6.4%; this growth occurred despite a falling *Source*: Eurostat (online data code: apro\_mt\_pann)

number of pigs. In 2022, pigmeat production in the EU fell 5.7%, followed by a further decrease of 6.5% in 2023.

The production of bovine meat, sheepmeat and goatmeat followed a generally downward path during the period from 2008 to 2023. EU production of sheepmeat and goatmeat fell at a particularly fast pace at the start of this period (down at least 35% between 2008 and 2014), although production was more stable in recent years.

Key figures on the European food chain – 2024 edition /eurostat

### Share of EU meat production

(% based on tonnes, 2023)



Note: estimates made for the purpose of this publication. Due to rounding, not all shares sum to 100.0%.

Source: Eurostat (online data code: <a href="mailto:apro\_mt\_pann">apro\_mt\_pann</a>)

In 2023, almost a quarter (23.6%, or 4.9 million tonnes) of the EU's pigmeat production came from Spain, while Germany contributed a slightly smaller proportion (20.4%); aside from France (10.0%), each of the remaining EU countries had single-digit shares.

In 2023, Poland recorded the highest level of poultrymeat production (20.6% of the EU total, or 2.7 million tonnes). There were 4 additional EU countries with double digit shares – Spain (12.8%), Germany (11.8%), France (11.5%) and Italy (10.0%).

Slightly more than a fifth of the EU's bovine meat production in 2023 originated from France (20.4%, or 1.3 million tonnes), while Germany (15.6%), Spain (10.9%), Italy (9.7%) and Ireland (9.4%) also had relatively high shares.

Spain had the largest share of the EU's sheepmeat production in 2023 (26.5%, or 105 000 tonnes), while most of the remaining production came from France (18.4%), Ireland (17.7%) and Greece (11.6%).

### More information: livestock and meat statistics.





### Production and use of milk

(million tonnes, EU, 2023)



Note: provisional data, estimates made for the purpose of this publication. Due to rounding, not all components sum to their total. Milk used on farms: in whole milk equivalent. Butter: includes other yellow fat dairy products; expressed in butter equivalent. Whey: in liquid whey equivalent.

In 2023, <u>milk production</u> on EU farms stood at an estimated 160.8 million tonnes of raw milk – a modest increase of 0.8 million tonnes (or 0.5%) compared with the previous year. The vast majority of raw milk production in the EU is delivered to dairies; farms used 11.6 million tonnes – consumed Source: Eurostat (online data codes: <a href="mailto:apro\_mk\_farm">apro\_mk\_farm</a>)

by the farmer's family, sold directly to consumers, used as feed or processed directly. Of the 149.3 million tonnes of milk delivered to dairies, 145.0 million tonnes were cows' milk, the rest coming from other livestock, such as ewes (sheep), goats and buffaloes.

### Share of EU dairy products

(% based on tonnes, 2023)



Note: estimates made for the purpose of this publication. Some shares do not sum to 100% due to rounding. *Source:* Eurostat (online data code: apro\_mk\_pobta)

Some of the principal <u>dairy products</u> that are produced in the EU include drinking milk, whey (a by-product in the manufacture of cheese), butter and cheese. Germany was the leading producer in the EU for each of these products in 2023: with 14.1 million tonnes of whey (about 27% of the EU total), 4.1 million tonnes of drinking milk (19%), 2.4 million tonnes of cheese (22%) and 400 000 tonnes of butter (20%).

The other main cheese producing countries within the EU included France (1.9 million tonnes in 2023, about 18% of the EU total), Italy (1.3 million tonnes; 13%), the Netherlands (1.0 million tonnes; 10%) and Poland (980 000 tonnes; 9%). The Netherlands and Poland had the 2nd and 3rd highest levels of production in the EU for whey, with an estimated 8.8 million tonnes and 5.2 million tonnes, respectively. France and Ireland were the 2nd and 3rd largest butter producers in the EU, with 343 000 and 255 000 tonnes, respectively.

## Share of EU milk from animals other than cows

(% based on tonnes of deliveries to dairies, 2023)



Note: estimates made for the purpose of this publication. Source: Eurostat (online data code: apro\_mk\_pobta)

There are a few EU countries where livestock other than cows contribute substantially to overall milk production; this is the case in many arid regions, particularly within the Mediterranean basin. In 2023, Spain, Greece, France and Italy collectively accounted for more than four fifths of the non-cows' milk delivered to EU dairies.

In 2023, 732 000 tonnes of ewes' milk were delivered to dairies in Greece (about 32% of the EU total), with a relatively high level also recorded in Spain (622 000 tonnes; 27%).

The main producers of goats' milk included France (537 000 tonnes delivered to dairies in 2023; about 30% of the EU total), Spain (433 000 tonnes; 24%) and the Netherlands (422 000 tonnes; 23%).

In Italy, some 232 000 tonnes of milk delivered to dairies in 2023 came from buffaloes; this was approximately 98% of the EU total and was mainly used for making cheese.

More information: milk and milk product statistics.



# Agricultutral output value and economic performance

### Distribution of gross output for the agricultural industry

(€ billion, values at basic prices, EU, 2023)



Note: gross output is the production value.

### The term agricultural industry is used to describe all farms involved in agricultural production, groups of producers (cooperatives) that make wine and olive oil, and specialised agricultural contractors.

Among other objectives, the *Farm to Fork Strategy* aims to generate fairer economic returns and foster competitiveness within the EU's agricultural sector. The value of the gross output produced by the EU's agricultural industry was €537.1 <u>billion</u> in 2023. This

Source: Eurostat (online data code: aact\_eaa01)

included <u>crop output</u> ( $\in$ 273.6 billion; 51.0% of the total), <u>animal output</u> ( $\in$ 214.3 billion; 39.9%), agricultural services ( $\in$ 25.4 billion; 4.7%) and some inseparable non-agricultural goods and services ( $\in$ 23.8 billion; 4.4%).

At a more detailed level, the largest categories of the EU's agricultural output in 2023 were milk (€75.2 billion; 14.0%), vegetables and horticultural products (€71.0 billion; 13.2%), cereals (€57.4 billion; 10.7%), pigs (€48.4 billion; 9.0%) and cattle (€36.3 billion; 6.8%).

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### Developments of gross output for the agricultural industry

(2013 = 100, volume index of values at basic prices, EU, 2013–23)



Source: Eurostat (online data code: aact\_eaa05)

Changes in volume indices of output reflect a change in the value of output after removing any output price changes (inflation or deflation); this is broadly synonymous with a change in constant prices. With an overall increase of 33.0% in the value of output and a somewhat lower increase (27.8%) in output prices of agricultural goods and services, the volume index of output for the EU's agricultural industry rose overall by 4.0% between 2013 and 2023.

Between 2022 and 2023, the volume index for EU animal output fell 2.6%, while crop output fell 2.5% and agricultural services fell 1.3%. By contrast, the output of secondary activities rose 3.2%.

### Annual rate of change of input price indices for the agricultural industry



Note: based on indices compiled with 2015 = 100; includes estimates made for the purpose of this publication for 2021-23 that are based on more recent information available for indices compiled with 2020 = 100 (excluding Italy and Sweden).

Input price indices cover the <u>intermediate</u> <u>consumption</u> of goods and services (for example, fertilisers, pesticides, seed or energy) and gross fixed capital formation (for example, machinery and equipment). *Source*: Eurostat (online data codes: <u>apri\_pi15\_ina</u> and <u>apri\_pi20\_ina</u>)

Russian military aggression against Ukraine drove up global energy prices, impacting downstream prices in agriculture (such as those for <u>fertilisers</u>). After a rapid increase in the overall price of goods and services consumed in agriculture in 2022 (up 31.2%), there was a moderate decline in 2023 (down 4.7%). This was most evident in terms of lower prices for fertilisers and soil improvers (down 24.6%), and to a lesser degree, energy and lubricants (down 8.7%).



### Developments of output and consumption for the agricultural industry

(2008 = 100, values at current basic prices, 2023)

Note: indices originally compiled with 2015 = 100; rescaled to 2007 = 100. Ranked on the change in value added.

Source: Eurostat (online data code: aact\_eaa05)

### Inputs of products that are used up (consumed) in a production process, such as fertilisers, pesticides, seed, animal feed, energy and veterinary services, are referred to as intermediate consumption.

The cost of intermediate inputs for the EU's agricultural industry totalled  $\in$ 313.2 billion in 2023. The difference between the output value ( $\in$ 537.1 billion) and the cost of intermediate consumption is the value added at basic prices; in other words, the value that has been added through production (in this case, agricultural) processes. In 2023, gross value added for the EU's agricultural industry was  $\in$ 223.9 billion.

Gross value added in the EU's agricultural industry increased overall by 50.2% in current price terms between 2008 and 2023, reflecting a 47.2% increase in the value of output. This was to some extent offset by a 45.1% increase in expenditure on intermediate consumption.

In 3 EU countries – Ireland, Hungary and Poland – value added in the agricultural industry more than doubled between 2008 and 2023. There were 9 other EU countries where value added increased by more than the EU average. By contrast, Malta and Croatia had lower levels of value added in 2023 than in 2008.

Intermediate consumption costs and the value of output of the agricultural industry were higher in 2023 than in 2008 for all of the EU countries, except Croatia. Intermediate consumption costs more than doubled in Estonia, Hungary, Poland and Portugal, while the value of output more than doubled in Hungary and Poland.

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### Gross value added from agriculture

(% relative to GDP, 2008 and 2023)



Note: BE, break in series.

Source: Eurostat (online data codes: <a href="mailto:aact\_eaa01">aact\_eaa01</a> and <a href="mailto:nama\_10\_gdp">nama\_10\_gdp</a>)

In 2023, value added from the EU's agricultural industry was equivalent to 1.3% of <u>gross domestic</u> <u>product (GDP)</u>; as such, this ratio remained the same as in 2008.

The ratio of the agricultural industry's value added to GDP was notably higher in Romania (3.1%) and Greece (2.7%) than in other EU countries in 2023; Spain (2.2%) and Bulgaria (2.1%) were the only other EU countries with ratios of more than 2.0%. In 14 EU countries, value added from the agricultural industry was equivalent to less than 1.0% of GDP; the lowest ratios were recorded in Luxembourg and Malta (both 0.2%).

Between 2008 and 2023, the ratio of the value added of the agricultural industry to GDP increased in 12 EU countries. Greece (0.5 percentage points) and Spain (0.3 points) had the biggest increases. By contrast, the relative weight of the agricultural industry fell at a fast pace in Bulgaria (down 2.7 points), Romania (2.3 points), Croatia (0.8 points), Estonia and Lithuania (both 0.6 points). EU gross value added at basis pices in 2008

E19.1 billion

E23.9 billion

#### 1.11



### Share of EU gross value added for the agricultural industry

(% based on values at current prices, 2008 and 2023)



In 2023, Italy's agricultural industry had the highest value added among the EU countries, contributing 17.4% of the EU total. France (16.9%), Spain (15.2%) and Germany (13.7%) were the only other EU countries with double-digit shares.

Comparing 2008 with 2023, Italy saw its share of EU value added for the agricultural industry decrease by the biggest margin (down 1.8 percentage points). Germany (up 2.3 points) and the Netherlands (up 1.2 points) had the largest increases.

Source: Eurostat (online data code: aact\_eaa01)

### Agricultural labour input and income



Note: indices originally compiled with 2015 = 100; rescaled to 2008 = 100.

*Source*: Eurostat (online data codes: <u>aact\_eaa06</u> and <u>aact\_ali02</u>)

### Net value added at factor cost, so-called <u>factor income</u>, is a measure of the economic performance of the agricultural industry. As a ratio to employment, factor income is a partial labour productivity measure; however, care has to be taken with parttime, seasonal and unpaid (often family) labour input. The amount of work actually carried out in agriculture is described using a unit called the <u>annual work unit</u>, which is equivalent to the amount of work done by 1 person working full time for a whole

### year. The factor income per annual work unit shows the net value added by the equivalent of each full-time worker, with this value deflated and expressed as an index.

Between 2008 and 2023, agricultural labour input in the EU fell overall by 32.8%, equivalent to an annual average decline of 2.6%. Real factor income per annual work unit in the EU was 67.4% higher in 2023 than it was in 2008, equivalent to an annual average increase of 3.5%.

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### Real developments in agricultural factor income per annual work unit

(%, 2008–23 and 2022–23)

Note: IS, 2009–23 instead of 2008–23.

Between 2022 and 2023, the EU's agricultural factor income per annual work unit decreased 7.6%. This reflected, among other changes, considerable reductions for several of the EU's largest agricultural industries, including Romania (down 21.1%), Germany (down 17.1%), France (down 15.2%) and Poland (down 11.5%). At the other end of the range, 7 EU countries recorded increases in their index of agricultural factor income in 2023. The biggest gains were observed in Belgium and Spain, up 27.3% and 12.9%, respectively.

Looking at a longer time perspective – comparing 2023 with 2008 – 4 EU countries reported a real fall in agricultural factor income per annual work unit. The largest decrease was in Malta (down on average by 4.7% each year), with smaller decreases in Estonia, Austria and Luxembourg. Among the larger EU *Source:* Eurostat (online data code: aact\_eaa06)

economies, increases in agricultural factor income per annual work unit were often below the EU average of 3.5% per year; this was the case, for example, in France (up 2.0% per year), Germany (2.1%), Spain (2.7%) and Italy (3.1%). The main exception was Poland, with an average increase of 6.2% each year; this was the highest recorded across all EU countries. There were also relatively high increases in Denmark (5.9% per year), Slovakia (5.7%) and Bulgaria (4.8%).

More information: performance of the agricultural sector.



# **Fishing and aquaculture**



The EU's fishing fleet numbered 70 408 catching vessels in 2023, with a gross tonnage (a measure of the capacity for holding fish) of 1.3 million tonnes and a total engine power – an indicator of the power available for fishing gear – of 5.1 million kilowatts. The vast majority of boats within the EU's fishing fleet are no more than 10 metres long.



Source: Eurostat (online data code: fish\_fleet\_alt)

The EU's fishing fleet has declined steadily over the last decade, in terms of number, tonnage and engine power. The fleet had about 10 100 fewer vessels in 2023 than in 2013, down 12.6%. Its combined capacity was 13.3% smaller and its total engine power was 11.3% lower.

### Share of EU's fishing fleet

(% based on gross tonnage, 2023)

When measured by gross tonnage, Spain had, by far, the largest fishing fleet among EU countries (24.8% of the EU total in 2023), followed by France (12.4%) and Italy (11.5%).

However, when measured by engine power, Italy had the largest fleet (18.4% of the EU total in 2023), closely followed by France (17.9%).

In terms of the number of vessels, Italy again had the largest fleet (17.4% of the EU total in 2023), closely followed by Greece (17.2%).


Fish are a renewable and mobile natural resource. Within the EU, fish stocks are managed collectively under the <u>common fisheries policy</u>.

Although the EU's fishing fleet operates worldwide, official statistics on EU fishing activities cover 7 major

#### **Developments of catch**

tively fishing areas are defined by the <u>Food and Agriculture</u> Organization of the United Nations (FAO). Based on scientific advice, the EU sets annual quotas for most commercial fish species in each fishing area, detailing the total allowable catch for each EU country.



Note: estimates made for the purpose of this publication.

The EU's total estimated fish catch was 3.4 million tonnes of live weight equivalent in 2022, which was about 2% lower than its level in 2021 and some 21% lower than in 2007. The vast majority of the EU's catch is taken in the Atlantic, Northeast. In 2022, this area

Source: Eurostat (online data code:  $\underline{fish\_ca\_main}$ ) and the Food and Agriculture Organization of the United Nations (FAO) –  $\underline{Fisheries}$  and Aquaculture Division (NFI)

accounted for about 70% of the EU's total catch across the 7 major fishing areas. Around a tenth of the EU's total catch was in the Mediterranean and Black Sea, followed by the Indian Ocean, Western area (7%) and the Atlantic, Eastern Central area (6%).



#### Share of main species in catch

(% of total live weight caught in each marine fishing area, EU, 2022)

The EU's fishing fleet catches a wide variety of fish species. This reflects, among other factors, the characteristics of fishing grounds, different types of fishing techniques and gear, quotas, and patterns of consumer demand.

In 2022, herring (19% of the live weight caught in this area), sprat (14%), blue whiting (11%) and mackerel (10%) were the main species caught in the Northeast area of the Atlantic. The 2 main species caught in the Mediterranean and Black Sea were sardine (22%, mainly European pilchard) and anchovy (18%). The EU's fishing fleet in the Western area of the Indian Ocean almost exclusively caught tuna, in particular skipjack (59%), yellowfin (30%) and bigeye (9%). Mackerel (19%), horse mackerel (17%), skipjack (17%) and yellowfin tuna (12%) were the main species caught in the Eastern Central area of the Atlantic.



Note: estimates made for the purpose of this publication. Source: Eurostat (online data code: fish\_ca\_main)

#### Share of EU's catch

#### (% based on tonnes, 2022)

Spain, with 752 000 tonnes of live weight, had the largest fish catch among EU countries in 2022 (22% of the total), followed by France (517 000 tonnes; 15%) and Denmark (459 000 tonnes; 14%).



Note: estimates made for the purpose of this publication.

Iceland (2021 data) and Norway (2022 data) had a combined catch of 3.5 million tonnes of fish, slightly greater than the quantity of fish caught by the whole of the EU's fleet in 2022.



*Source:* Eurostat (online data code: <u>fish\_ca\_main</u>) and the Food and Agriculture Organization of the United Nations (FAO) – <u>Fisheries</u> and Aquaculture Division (NFI)

#### Catches by EU countries' fleets in marine fishing areas

(1 000 tonnes, 2022)







#### **Developments of aquaculture production**

Note: estimates made for the purpose of this publication. Crustaceans and aquatic plants: not significant.

#### Aquaculture is the production of fish and other aquatic organisms like molluscs and crustaceans under controlled conditions, both inland and in marine areas.

In 2022, the EU's estimated <u>output from aquaculture</u> for all fishery products – including the very limited, but highly-priced production of fish eggs for human consumption (<sup>3</sup>) – was 1.08 million tonnes of live weight equivalent.

Between 2008 and 2022, the output of total fishery products fluctuated between 0.98 and 1.13 million tonnes. The stagnation of EU aquaculture production in recent years is in stark contrast to global developments; the <u>FAO</u> estimates that the world's aquaculture production surpassed the world's total fish catch in 2022. *Source*: Eurostat (online data code: <u>fish\_aq2a</u>) and the <u>European</u> Market Observatory for Fisheries and Aquaculture (EUMOFA)

Molluscs – for example, mussels, oysters or clams – accounted for just under half (48.2%) of the EU's total aquaculture production in 2022, while marine fish accounted for just under a quarter (24.7%). Diadromous fish – species that migrate between seawater and freshwater, like salmon – had the next highest share of EU aquaculture production (18.2%) , followed by freshwater fish (8.6%).

Between 2008 and 2022, there was a decline in the EU's output of freshwater fish, molluscs and diadromous fish from aquaculture, with all 3 of these groups recording an 11% fall in live weight equivalents. By contrast, the output of marine fish from aquaculture increased 52% during the same period, with a peak of 268 000 tonnes of production in 2022.

More information: fisheries – catches and landings.

<sup>(3)</sup> Fish farmers in the EU cultivated 1 500 tonnes of fish eggs for human consumption, with an average price of  ${\rm e}72$  000 per tonne.

#### Main species of aquaculture production

(%, EU, 2022)



Note: estimates made for the purpose of this publication.

The EU produced about 396 000 tonnes of farmed mussels in 2022. This equated to almost two fifths (37%) of the EU's total aquaculture output. The next largest species in quantity terms were trout (16% of the EU total), gilthead seabream (10%), European seabass (8%) and oysters (also 8%).

The estimated value of production of trout was about €730 million in 2022, more than for any other

#### *Source*: Eurostat (online data code: <u>fish\_aq2a</u>)

farmed species and equivalent to 15% of the EU's aquaculture production value. Different species fetch different prices, and this explains why, for example, the relative share of mussels in value terms was considerably lower, at 9% of the EU total, than in quantity terms. By contrast, the relatively high price of bluefin tuna resulted in a share in value terms (7% of the EU total) that was 4.1 times as high as in quantity terms.

#### Share of EU aquaculture production

(% based on tonnes, 2022)



Source: Eurostat (online data code: fish\_aq2a)

Aquaculture plays an important role in most EU countries that border the Mediterranean and Black Sea and is relatively concentrated. In 2022, Spain (25.1%), France (17.0%), Greece (13.0%) and Italy (12.0%) together accounted, in quantity terms, for slightly more than two thirds of the EU's aquaculture output.

The quantity of aquaculture production in Norway (1.66 million tonnes in 2022) exceeded that for the whole of the EU (1.08 million tonnes) and was comprised almost exclusively of farmed salmon.

More information: aquaculture statistics.



## **Processing of food and beverages**

#### Size of food and beverage processing

(EU, 2022)



Note: the percentages show the share within manufacturing.

The food chain is much wider than primary agricultural production; it also covers food and drink processing, distribution and services. Under the *Farm to Fork Strategy*, food and beverage processors are encouraged to increase the availability and affordability of healthy, sustainable food, by changing the types and nutritional composition of the food they produce, their choice of suppliers, or their production methods. Source: Eurostat (online data code: <a href="mailto:sbs\_ovw\_act">sbs\_ovw\_act</a>)

In 2022, there were 309 000 food and beverage processing <u>enterprises</u> in the EU, equivalent to 14.4% of all <u>manufacturing</u> enterprises. Some 4.7 million people worked in food and beverage processing (15.7% of the total number of people employed within manufacturing). The <u>value added</u> of food and beverage processing enterprises was €266 billion, which was around a quarter higher than that of agriculture (€216 billion, at basic prices).



#### Key size class indicators

Note: includes estimates made for the purpose of this publication.

Most food and beverage processors within the EU serve local or national markets. By contrast, there are a few very large food and beverage processors characterised by global brands with considerable market reach.

In 2022, the vast majority (96.0%) of the EU's food and beverage processors were micro or small enterprises:

Source: Eurostat (online data code: <a href="mailto:sbs\_sc\_ovw">sbs\_sc\_ovw</a>)

in other words, they employed fewer than 50 people. By contrast, large enterprises – employing 250 or more people – accounted for 55.9% of the total value added in food processing, and for an even higher share (65.9%) of the added value in beverage processing.

#### Structure of food and beverage processing

(%, EU, 2022)



Note: ranked on the share for the number of people employed. Includes estimates made for the purpose of this publication.

In 2022, around a third (32.4%) of the EU's food and beverage processing workforce were employed in the manufacture of bakery and starch-based products (for example bread, cakes, biscuits, pasta and noodles). The next highest share was for the manufacture of meat and meat products (20.5%). Source: Eurostat (online data code: sbs\_ovw\_act)

The manufacture of bakery and starch-based products generated 17.8% of the value added by EU food and beverage processors in 2022. There were also high shares for the manufacture of beverages (17.6%; considerably above its 9.5% share of employment) and the manufacture of meat and meat products (16.4%).

#### Volume index of production



Note: index originally compiled with 2021 = 100; rescaled to 2008 = 100. Source: Eurostat (online data code:  $sts_inpr_a$ ) Between 2008 and 2023, real changes in the output of EU food manufacturing followed a more uniform development than for manufacturing as a whole or for beverage manufacturing. A downturn in economic activity often has a greater impact on purchases of nonessential items (such as alcoholic beverages), whereas demand for essentials – such as staple food products – is more likely to be maintained.

In 2020, the <u>production index</u> of beverage manufacturing across the EU fell 9.5%. This reflected a reduction in demand linked, at least in part, to the closure of downstream food and beverage serving businesses (like bars and restaurants) during the initial stages of the COVID-19 pandemic. The output of EU food manufacturing fell 1.7% in 2020 – a modest reduction compared with the fall for the whole of manufacturing (down 7.8%). By 2021, the level of output for food manufacturing was higher than it had been before the COVID-19 pandemic, which was also the case by 2022 for beverage manufacturing. However, the output of food and beverage manufacturing fell in 2023, down 1.2% and 3.2%, respectively, reflecting, at least in part, changes to consumer behaviour during the cost-of-living crisis.



#### Share of EU food and beverage processing

(%, 2022)





Note: includes estimates made for the purpose of this publication.

In 2022, food and beverage processors employed 4.7 million people across the EU. Of these, Germany had the highest share (21.0%), followed by France (15.9%), while Spain, Italy and Poland each accounted for about a tenth of the EU's employment. Food and Source: Eurostat (online data code: <u>sbs\_ovw\_act</u>)

beverage processing enterprises in the EU added €266 billion of value in 2022. As for employment, Germany had the highest share of the EU's value added, accounting for slightly more than a fifth of the EU total (21.2%).

#### Share of food and beverage processing within manufacturing

(%, 2022)



Note: includes estimates made for the purpose of this publication. Data are presented for the EU average and EU countries with employment shares of more than 20.0%.

Source: Eurostat (online data code: <a href="mailto:sbs\_ovw\_act">sbs\_ovw\_act</a>)

Although food and beverage processing employed 15.7% of the EU's manufacturing workforce in 2022 and accounted for an 11.0% share of the EU's manufacturing value added, several EU countries recorded much higher degrees of specialisation. This was most notably the case in Cyprus and Greece, where close to two fifths of the manufacturing workforce was employed within food and beverage processing (40.3% and 37.5%, respectively).

In each of the EU countries, the contribution of food and beverage processors to manufacturing employment in 2022 was consistently higher than their contribution to manufacturing value added. In other words, food and beverage processors had lower levels of labour productivity than the manufacturing average. A number of factors including relatively low average wages and salaries and/or high seasonal and part-time employment influence productivity. Ireland and Greece registered the largest disparities, as the employment share of food and beverage processors exceeded their value added share by 16.3 and 14.4 percentage points, respectively. The very low share of food and beverage processors in Ireland's manufacturing value added also reflects, at least in part, exceptionally high levels of added value for a number of capital-intensive, high-technology industries (such as pharmaceuticals and electronics).



## Share of foreign controlled enterprises in food, beverage and tobacco processing

(%, EU, 2021)

i

Note: ranked on value added. Includes estimates made for the purpose of this publication. United States: value added, not available (included in the rest of the world).

#### For statistical purposes, <u>foreign affiliates</u> are considered to be enterprises resident in 1 country and controlled by a unit resident in another.

The globalised economy is increasingly characterised by intricate business networks. Statistics on foreign affiliates are compiled according to the ultimate controlling institutional unit (UCI) – determined by proceeding up a foreign affiliate's chain of control until there is no further controlling interest; by doing so, potential doublecounting of the same affiliates (by several countries) can be avoided. In this context, control refers to the ownership of a controlling share of the shareholders' voting power and the ability to determine the general policy of an enterprise, for example by choosing appropriate directors. In this way, an enterprise is said to be controlled by an institutional unit when the latter (a single investor or a group of investors acting together) owns, directly or indirectly, more than half of the voting shares in the enterprise.

Source: Eurostat (online data code: fats\_activ)

Foreign-controlled enterprises play an important role in food and beverage processing. In 2021, they contributed over a quarter (26.5%) of the added value generated within EU food and beverage processing; their share of employment was significantly lower, at 15.9%. Among foreign-controlled enterprises, there was a quite even split by origin: those from outside the EU (extra-EU partners) accounted for 14.0% of the total value added within food and beverage processing, while enterprises controlled from other EU countries contributed 12.5%.

Foreign-controlled enterprises ultimately controlled by a unit from the Netherlands accounted for 3.2% of the total value added in EU food and beverage processing in 2021; relatively high shares were also recorded for control from the United Kingdom (2.7%) and Switzerland (2.2%). In employment terms, 2.0% of the EU's food and beverage processing workforce were employed by a foreign-controlled enterprise that was ultimately controlled by a unit from the United States; relatively high shares were also recorded for control from Switzerland (1.9%) and the Netherlands (1.6%).



#### Principal producers of selected manufactured food and beverage products

(% based on production value, 2023)



Note: the chart shows the top 3 EU producers for each product and the contribution from the remaining EU countries. Fresh bread: EL, ES and SE, not available. Non-processed cheese: ES, HU, NL and AT, not available. Beer: NL, PL, SI and SE, not available. Cakes and pastries: BG and SK, not available. Soft drinks: BE, BG, NL, SI and SE, not available. Sausages: DK, LV, AT and SE, not available. *Source*: Eurostat (online data code: DS-056120)

Food and beverage processors manufacture a vast array of products that range from staple food products to luxury, sometimes high-value, items. Based on the EU's list of manufactured products (Prodcom list), fresh bread was the manufactured food and beverage product with the highest value ( $\leq$ 40.0 billion) of EU production in 2023. This product is important for cereal producers, in particular those growing wheat and rye for bread. Enterprises from Germany ( $\leq$ 13.0 billion), Italy ( $\leq$ 3.7 billion) and Poland ( $\leq$ 2.5 billion) collectively manufactured close to half of the fresh bread produced in the EU.

Non-processed cheese – including for example, Brie, Edam, Feta or Gorgonzola – and beer recorded the 2nd and 3rd highest values of production in 2023, with EU output valued at  $\in$  39.0 billion and  $\in$  32.3 billion, respectively. Italy was the principal producer of nonprocessed cheese in the EU ( $\in$  8.0 billion; 20.5% of the EU total). Germany was the leading producer of beer in the EU, accounting for approximately a fifth ( $\in$ 6.4 billion; 19.8%) of EU production.

There were 4 other products where the value of EU production in 2023 was above €25 billion: cakes and pastries (€30.0 billion), soft drinks (€28.3 billion), sausages (€27.3 billion) and fresh or chilled pigmeat (€25.2 billion).



### Distribution





# Trade in agricultural, fishery, food and beverage products

#### Trade data for individual EU countries covers both <u>intra-EU</u> (trade between EU countries) and <u>extra-EU</u> flows (trade with countries outside the EU).

The EU aims to ensure there is a sustainability chapter in its international trade agreements. In doing so, it seeks to develop bilateral commitments, for example in areas such as animal welfare, food safety, cooperation and aid for developing countries, or fair access to markets for trade. In 2023, the value of the EU's <u>exports</u> to non-EU countries (extra-EU trade) of agricultural and fisheries products combined with food and beverage products was €220 billion. Having widened for 6 consecutive years up to 2021, the EU's <u>trade</u> <u>surplus</u> for these products narrowed by €13 billion in 2022. In 2023, it rebounded (up €12 billion), as extra-EU exports were €42 billion higher than extra-EU imports. Agricultural, fisheries and food and beverage products accounted for 8.6% of all exported goods that left the EU in 2023 and for 7.1% of all goods imported into the EU.

## Extra-EU trade developments for agricultural, fisheries, and food and beverage products



(€ billion, EU, 2013–23)

Key figures on the European food chain – 2024 edition / eurostat



### Trade balance for agricultural, fisheries, and food and beverage products (€ billion, 2023)

Source: Eurostat (online data code: DS-045409)

In 2023, extra-EU trade accounted for 29.3% of the EU's total trade in agricultural, fisheries and food and beverage products. Trade between EU countries accounted for the remaining 70.7%; in part, this high share reflects the perishable nature of some products.

Among the EU countries, the biggest net exporter (extra- and intra-EU combined) of agricultural, fisheries and food and beverage products in 2023 was the Netherlands. It had a trade surplus of €39.5 billion. and was followed by Spain (€16.6 billion), Poland (€15.0 billion) and Belgium (€10.2 billion). The large surplus for the Netherlands reflects the fact that many goods imported into the Netherlands (for example, into the freight hub of Rotterdam) from all over the world are re-exported to other EU countries. By contrast, Germany had the largest trade deficit (€22.3 billion) for agricultural, fisheries and food and beverage products by a considerable margin.



## Intra- and extra-EU trade in agricultural, fisheries, and food and beverage products

(€ billion, EU, 2023)



Note: due to quasi-transit trade, the addition of intra-EU trade and extra-EU trade may lead to double counting. An example of this would be goods imported from China via the Netherlands where they are cleared by customs for free circulation before being dispatched to Germany. This would lead to the same goods being counted as imports by both the Netherlands and Germany. More precisely, they would appear in the Netherlands' extra-EU imports from China and intra-EU exports to Germany and in Germany's intra-EU imports from the Netherlands.

Source: Eurostat (online data code: DS-045409)

The EU generally imports raw, unprocessed agricultural and fishery products, while its principal exports are processed food and beverage products. For example, a number of crops and crop products, including varieties of fruit and nuts or coffee beans, only grow in climates outside the EU. This helps explain why the EU imported crops and crop products from non-EU countries in 2023 valued at €71.3 billion, some €26.6 billion more than its exports of these products. The EU also recorded a trade deficit for vegetable or animal oils and fats (€4.3 billion).

By contrast, the value of EU exports of processed food and beverage products to non-EU countries was €118.8 billion in 2023, which was more than twice as high as the value of its imports (€56.9 billion) of these products. The EU also recorded a trade surplus for animals and animal products (€11.1 billion).

The EU is largely self-sufficient (4) for a range of agricultural commodities, in particular dairy products and most meats. For example, the EU's production of skimmed milk powder in 2023 was more than twice as high as its level of consumption (a self-sufficiency rate of 215%), while it also had a relatively high self-sufficiency rate for whole milk powder, whey, processed peaches and nectarines, olive oil and soft wheat. By contrast, to meet demand within the internal market, the EU is, to some degree, dependent on imports of sugar, fresh tomatoes, sheep and goatmeat, fresh and processed oranges, vegetable oils, some cereals and oilseeds

<sup>(\*)</sup> The self-sufficiency rate is the ratio between domestic agricultural production and consumption, expressed as a percentage.

#### Share of extra-EU trade

(% share of EU total, based on value, 2023)



In value terms, the Netherlands imported and exported the highest levels of agricultural, fisheries and food and beverage products from/to non-EU countries in 2023, some  $\in$  37.8 billion and  $\in$  35.0 billion, respectively. This was equivalent to more than a fifth (21.3%) of the EU's imports and approximately a sixth (15.9%) of its exports of these products.

In 2023, the Netherlands recorded the highest share of extra-EU exports for crops and crop products (21.0% of the EU total) and for animals and animal products (17.0%), while Spain had the highest share of exports for vegetable or animal oils and fats (28.1%), and France for food and beverage products (18.9%).

The Netherlands recorded the highest share of extra-EU imports for 3 of the 4 main product groups within agricultural, fisheries and food and beverage products in 2023. Its highest share was for vegetable or animal oils and fats (27.9% of the EU total), followed by crops and crop products (22.4%), and food and beverage products (21.7%). The only exception was for animals and animal products, where Sweden (15.8% of the EU total) had a slightly higher share than the Netherlands (15.6%).

Source: Eurostat (online data code: DS-045409)



#### Extra-EU trade in agricultural, fisheries, food and beverage products

(€ billion, EU, 2023)



A more detailed view of extra-EU trade in 2023 shows that the EU's principal exports included beverages, spirits and vinegar (€37.9 billion), preparations of cereals, flour, starch or milk (€21.8 billion) and dairy produce (including cheese, milk and yoghurts), birds' eggs and natural honey (€19.0 billion). The EU's principal imports included fish, crustaceans and aquatic invertebrates (€24.6 billion), edible fruit and nuts (€21.0 billion), and oilseeds and oleaginous fruits (€15.5 billion).

The EU recorded a sizeable trade deficit in 2023 for several crop and crop products, including edible fruit and nuts (€15.1 billion), oilseeds and oleaginous fruits (€10.4 billion), and coffee, tea, mate and spices (€9.1 billion).

Among animals and animal products, dairy produce, birds' eggs and natural honey (€16.4 billion) and meat and edible meat offal (€11.2 billion) recorded the EU's largest trade surpluses in 2023. By contrast, the EU had a trade deficit of €19.3 billion for fish, crustaceans and aquatic invertebrates (the biggest deficit among any of the product categories covered).

Among food and beverage products, the EU's largest trade surpluses in 2023 were for beverages, spirits and vinegar (€27.8 billion; the biggest surplus among any of the product categories covered) and for preparations of cereals, flour, starch or milk (€17.9 billion).

## Extra-EU trade partners for agricultural, fisheries, food and beverage products

(%, EU, 2023)



*Source:* Eurostat (online data code: <u>DS-045409</u>)

In 2023, EU exports of agricultural, fisheries and food and beverage products to the United Kingdom were valued at €50.6 billion. This represented almost a quarter (23.0%) of the EU's total exports of these products, with the next highest shares recorded by the United States (12.2%) and China (6.2%). The United Kingdom was the EU's main export destination for food and beverage products (24.7% of the EU total), animals and animal products (22.7%), and crops and crop products (20.4%), while the United States was the principal destination for EU exports of vegetable or animal oils and fats (18.5%).

In 2023, the EU imported €16.5 billion of agricultural, fisheries and food and beverage products from the United Kingdom (9.3% of the EU total); Brazil (9.2%) and Ukraine (6.6%) recorded the next highest shares. Brazil was the main origin for EU imports of crops and crop products (11.4% of the EU total), while Norway was the main origin for animals and animal products (24.6%), Indonesia for vegetable or animal oils and fats (19.7%), and the United Kingdom for food and beverage products (16.7%).

More information: extra-EU trade in agricultural goods.

## Transport

Heavy goods vehicles registered in the EU transported some 1.3 billion tonnes of agriculture, forestry and fishery products in 2023, alongside 1.6 billion tonnes of food, beverage and tobacco products.

Between 2008 and 2023, the quantity of agriculture, forestry and fishery products transported by heavy goods vehicles registered in the EU increased on average by 1.4% per year; for food, beverage and tobacco products, the average increase was 0.7% per year. When taking account of not only the quantity but also the distance transported (in tonne-kilometres, the payload distance), the average annual increases were 1.3% for agriculture, forestry and fishery products and 1.1% for food, beverage and tobacco products.

The data in this section concern goods transported on roads in the EU by heavy goods vehicles registered within EU countries. Therefore, the figures don't include products transported by vehicles registered in other countries, nor by vehicles below a certain size threshold.



#### **Road transport developments**

(EU, 2008-23)



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2018

Note: goods transported by heavy goods vehicles registered in EU Source: Eurostat (online data code: road\_go\_ta\_tg) countries.

2023

2013

50 0

2008

## Distance of road transport for agriculture, forestry, fishery, food, beverage and tobacco products



(% based on tonnes, EU-registered vehicles, 2023)

Note: goods transported by heavy goods vehicles registered in EU countries.

Source: Eurostat (online data code: <a href="mailto:road\_go\_ta\_dctg">road\_go\_ta\_dctg</a>)

In 2023, the transportation of agriculture, forestry and fishery products (85.8%) and food, beverage and tobacco products (78.9%) by heavy goods vehicles registered in the EU was mainly over distances of less than 300 km. Nevertheless, the shares of these goods transported over distances of fewer than 50 km were relatively small for agriculture, forestry and fishery products (34.2%) and for food, beverage and tobacco products (26.3%), when compared with all products (48.0%).

## Type of road transport for agriculture, forestry, fishery, food, beverage and tobacco products

(EU, % based on tonnes, 2023)



Note: the data show the type of operations for vehicles registered in EU countries. Excluding MT. Due to rounding, shares don't sum to 100.0%.

Source: Eurostat (online data codes: <u>road\_go\_ta\_tg</u>, <u>road\_go\_</u> na\_tgtt, road\_go\_ia\_lgtt and <u>road\_go\_ia\_ugtt</u>) In 2023, national transport accounted for the vast majority (90.1%) of the road freight transport of agriculture, forestry, fishery, food, beverage and tobacco products by heavy goods vehicles registered in the EU. In other words, these goods were transported within individual EU countries by vehicles registered in the same country.

On average, the loading of goods for international transport accounted for 3.9% of the total quantity of agriculture, forestry, fishery, food, beverage and tobacco products transported in 2023 by heavy goods vehicles registered in the EU, while unloading after international transport accounted for 2.8%. Other transport – <u>cross-trade</u> and <u>cabotage</u> – accounted for the remaining 3.3%.



## Wholesale, retail and services provision of food and beverages

#### Wholesaling, retailing and serving of food and beverages

(EU, 2012 and 2022)



Note: for wholesaling and retailing, food and beverages also covers tobacco. These trade and service activities include NACE codes: 46.17, 46.3, 47.11, 47.2, 47.81 and 56. Includes estimates made for the purpose of this publication. Different scales are used for each indicator.

Enterprises trading or serving food and beverages include wholesalers and retailers (who also trade tobacco) as well as serving businesses such as restaurants, bars, cafés and caterers. As part of the *Farm to Fork Strategy*, the European Commission is seeking commitments from these businesses on a range of health and sustainability issues, for example, reformulating food products in line with guidelines for healthy diets, providing information about calories and ingredients on menus, reducing their environmental footprint, or cutting packaging.

In 2022, there were 2.70 million enterprises wholesaling, retailing or serving food and beverages across the EU. Of these, 263 000 were wholesalers, 881 000 were retailers and 1.6 million were enterprises serving food and beverages. Together they employed a total of 16.9 million people, generating €3.0 trillion of turnover and adding €507 billion of value.



Source: Eurostat (online data codes: <u>sbs\_ovw\_act</u>, <u>sbs\_na\_dt\_r2</u> and <u>sbs\_na\_1a\_se\_r2</u>)

Although the economic performance of enterprises wholesaling, retailing or serving food and beverages generally followed an upward path during the most recent decade for which data are available, there was a marked contraction for some specific activities in 2020, as governments imposed a range of restrictions at the onset of the COVID-19 pandemic (for example, closing outlets for food and beverages). In 2021, enterprises wholesaling, retailing or serving food and beverages in the EU experienced a rebound in activity. There was further growth in 2022 for enterprises serving food and beverages, while the performance of wholesale and retail activities was mixed.

Between 2021 and 2022, the number of people employed increased at a relatively fast pace for enterprises serving food and beverages (up 8.3%), while the workforce for the wholesale of food, beverages and tobacco also grew (up 1.3%). There was no change in the size of the workforce for the retail sale of food, beverages and tobacco in non-specialised stores. Employment contracted for each of the remaining wholesale and retail activities.



### **Structure of wholesaling, retailing and serving of food and beverages** (%, EU, 2022)

Source: Eurostat (online data code: sbs\_ovw\_act)

As is common for wholesaling in general, most food and beverage wholesalers across the EU in 2022 were resellers, buying and selling products (205 000 enterprises; equivalent to 7.6% of all enterprises wholesaling, retailing or serving food and beverages). Wholesale resellers accounted for a larger share of the workforce (11.0% of all enterprises wholesaling, retailing or serving food and beverages; 1.8 million) and value added (22.7%; €115 billion) than food and beverage wholesale agents (trading on commissions).

Specialised in-store retailers, such as greengrocers, butchers, fishmongers, bakers and tobacconists were the most common type of food and beverage retailer across the EU in 2022 (422 000 enterprises; equivalent to 15.6% of all food and beverages trade and serving enterprises). These specialists outnumbered enterprises that were non-specialised in-store retailers with food and beverages predominating (362 000 enterprises; 13.4%), such as general grocers and supermarkets. However, non-specialised in-store food and beverage retailers were considerably larger than their specialised competitors in terms of value added (€170 billion; equivalent to 33.5% of the total for food and beverages trade and serving) and employment (5.0 million people; 29.7%).

Enterprises serving food and beverages accounted for a majority (57.6%) of the total number of enterprises wholesaling, retailing or serving food and beverages across the EU in 2022, whereas their contributions to employment and value added were lower, at 49.6% and 35.6%, respectively.



## Key size class indicators for wholesaling, specialised retailing and serving of food and beverages

(%, EU, 2022)



Note: includes estimates made for the purpose of this publication.

Classifying enterprises according to their size in terms of the number of people employed

- micro enterprises have fewer than 10 people employed
- small enterprises have 10 to 49 people employed
- medium-sized enterprises have 50 to 249 people employed
- large enterprises have 250 or more people employed.

As is true for many market services, micro enterprises dominated the count of enterprises wholesaling, retailing or serving food and beverages. Among the 3 activities shown, wholesale resellers recorded the lowest share of micro enterprises (85.8% in 2022) across the EU and the highest share for each of the 3 larger size classes. *Source*: Eurostat (online data code: <u>sbs\_sc\_ovw</u>)

In 2022, micro enterprises in the EU contributed a smaller share of employment and value added (20.5% and 14.7%, respectively) among wholesale resellers of food and beverages than was the case for the other 2 food and beverage activities. By contrast, large enterprises provided 35.8% of total value added and 30.7% of total employment.

Across the EU, micro enterprises contributed almost two thirds (66.0%) of total employment and close to three fifths (59.1%) of total value added in 2022 among specialised in-store food and beverages retailers.

The combined shares of micro and small enterprises accounted for more than three quarters (77.5%) of total employment and close to three quarters (71.8%) of total value added among enterprises serving food and beverages within the EU; these shares were considerably higher than the averages for all market services (51.5% and 39.8%, respectively).

#### Turnover index for wholesaling, retailing and serving of food and beverages



Note: index originally compiled with 2021 = 100; rescaled to 2008 = 100.

Source: Eurostat (online data codes: <a href="sts\_trtu\_a">sts\_sts\_trtu\_a</a> and <a href="sts\_sts\_trtu\_a">sts\_sts\_trtu\_a</a> and <a href="sts\_sts\_trtu\_a">sts\_sts\_trtu\_a</a> and <a href="sts\_sts\_trtu\_a">sts\_sts\_trtu\_a</a> and <a href="sts\_sts\_trtua">sts\_sts\_trtua</a> and <a href="sts\_sts\_trtua">sts\_sts\_trtua</a> and <a href="sts\_sts\_trtua">sts\_sts\_sts\_trtua</a> and <a href="sts\_sts\_trtua">sts\_sts\_sts\_sts\_trtua</a> and <a href="sts\_sts\_trtua">sts\_sts\_sts\_trtua</a> and <a href="sts\_sts\_trtua">sts\_sts\_sts\_sts\_trtua</a> and <a href="sts\_sts\_trtu

In current price terms, the <u>turnover</u> of EU enterprises serving food and beverages increased by more than a third (35.2%) between 2008 and 2019, an average annual increase of 2.8%. As noted above, the COVID-19 pandemic hit this activity particularly hard in 2020; its turnover fell 33.9% in 2020, partially rebounding in 2021 (up 15.2%), before accelerating at a rapid pace in 2022 (up 41.5%) and continuing to grow in 2023 (up 11.3%). The turnover of food and beverage wholesaler resellers also fell in 2020 (down 3.4%) but increases over the next 3 years (4.8%, 14.8% and 6.3%, respectively), more than recovered this loss. By contrast, the turnover of specialised and nonspecialised food and beverage in-store retailers rose throughout the period from 2020 to 2023, influenced during the 1st couple of years in part by people eating more often at home (due to COVID-related restrictions).

#### Volume index of sales for retailing of food and beverages



Note: index originally compiled with 2021 = 100; rescaled to 2008 = 100.

For retail trade, a <u>volume index of sales</u> is available. After taking account of this adjustment for changes in prices, sales across the EU from non-specialised in-store food and beverage retailing were 6.0% higher in 2023 than they had been in 2008. By contrast, sales were 12.4% lower for specialised in-store food and beverage retailing, suggesting a switch in consumer behaviour away from specialist retailers towards general grocers and supermarkets. *Source*: Eurostat (online data code: sts\_trtu\_a)

In the last couple of years, the cost-of-living crisis has also impacted consumer behaviour and spending patterns on food and beverages. Sales from specialised in-store food and beverages retailing were 6.9% lower within the EU in 2023 than they had been in 2021, while sales from non-specialised in-store food and beverages retailing were 4.5% lower, as people cut back on the volume (in terms of the quantity and/or the quality) of food and beverages that they purchased.



#### Share of EU wholesaling, retailing and serving of food and beverages

(%, 2022)



Note: includes estimates made for the purpose of this publication. *Source*: Eurostat (online data code: <u>sbs\_ovw\_act</u>)

Within the EU's wholesaling, retailing and serving of food and beverages activity, the relative size of each EU country reflects a number of factors. While the size of each population clearly influences the overall level of sales, so do cultural factors related to the consumption of food and beverage products and differences in price levels.

Germany had the highest level of value added and the highest number of people employed among enterprises that were wholesaling, retailing and serving food and beverages in 2022; it accounted for 23.7% and 19.3%, respectively of the EU total. France had the 2nd highest share of value added (18.6%) and the 3rd highest share of employment (13.7%); this was principally due to a relatively low number of people employed serving food and beverages. Spain and Italy accounted for relatively high shares of the total number of people employed in EU enterprises wholesaling, retailing and serving food and beverages (14.1% and 13.2%, respectively) when compared with their shares of value added; this was principally due to a relatively high number of people employed in enterprises serving food and beverages.





## Share of wholesaling, retailing and serving of food and beverages within market services

Note: ranked on value added. Includes estimates made for the purpose of this publication. CZ, DK and LU: underestimates (due to one or more missing activities).

Enterprises wholesaling, retailing and serving food and beverages contributed 14.9% of the total number of people employed within the EU's market services sector in 2022, whereas their share of value added was considerably lower (7.8%). The difference in these shares indicates that labour productivity within enterprises wholesaling, retailing and serving food and beverages was relatively low. Note however that some of these enterprises have a high share of parttime or seasonal workers and that employment figures are based on a simple headcount.

Enterprises wholesaling, retailing and serving food and beverages contributed considerably to market services in several (generally southern) EU countries Source: Eurostat (online data code: <a href="mailto:sbs\_ovw\_act">sbs\_ovw\_act</a>)

that are known as tourist destinations. In 2022, these activities accounted for more than a sixth of the total number of people employed in the market services sectors of Greece, Spain, Croatia, Italy, Cyprus, Bulgaria and Portugal. Greece (27.9%) recorded the highest employment share, followed at some distance by Spain (20.0%) and Croatia (19.4%).

Croatia, Spain and Greece also recorded the highest shares for value added. In 2022, enterprises wholesaling, retailing and serving food and beverages accounted for 12.0%, 11.7% and 11.4%, respectively, of the total value added in the Croatian, Spanish and Greek market services sectors. Portugal was the only other EU country with a double-digit share.



#### Annual change in turnover index for serving of food and beverages

Note: IE and NL, not available. Source: Eurostat (online data code: sts\_setu\_a)

From March 2020, the COVID-19 pandemic and related restrictions had a particular impact on enterprises serving food and beverages (such as restaurants, bars and cafés). Activity contracted at a rapid pace as many EU countries put in place restrictions on socialising indoors. Across the EU, there was a partial recovery in 2021 that accelerated in 2022 (sales growth of 41.5%) and continued into 2023 (growth of 11.3%).

Most EU countries experienced a similar pattern of development, as sales within food and beverage serving activities increased in 2021, accelerated in 2022, and continued to grow in 2023. The rapid growth of turnover reflected, among other factors, the post-pandemic recovery, postponed consumer demand, a recovery in tourism (both nationally and internationally), supply chain disruptions, the rising cost of ingredients and energy, labour shortages (impacting wages) in some hospitality activities and subsequent elevated levels of inflation. Turnover grew rapidly in 2022 across all EU countries (in the range of 25.5% to 83.9%). Although sales growth slowed in 2023 it remained relatively high, with positive rates of change in every EU country. Annual rates of change for sales of food and beverage serving activities in 2023 ranged from 5.9% in Denmark up to 29.3% in Slovakia.



## Consumption and environment



# Human consumption of food and beverages

## Annual household expenditure on food, beverages and catering services (EU, 2022)



Source: Eurostat (online data code: <u>nama\_10\_co3</u>)

Food and beverages are recurrent <u>expenditure</u> items. Purchases often reflect local, regional and national cuisine and may play a role in cultural identity.

For the EU as a whole, final consumption expenditure of households on food, beverages and catering

services was €1.79 trillion in 2022, equivalent to €3 980 per person. These latest figures marked a 15.3% increase in household expenditure on food, beverages and catering services (serving of food and/or alcoholic or non-alcoholic beverages) compared with 2021, indicating the significant impact of rising food prices during the cost-of-living crisis.

Food, beverages and catering services accounted for 21.8% of EU household consumption expenditure in 2022 (12.2% on food, 6.7% on catering services, 1.6% on alcoholic beverages and 1.3% on non-alcoholic beverages).

Between 2021 and 2022, the share of catering services in total household consumption expenditure increased in every EU country. The relative share of spending on these services rose by 2.0 to 2.7 percentage points in Spain, Ireland, Austria and Portugal, with the largest increase recorded in Malta (up 3.1 percentage points). By contrast, the share of alcoholic beverages in total household consumption expenditure fell in the vast majority of EU countries (20 out of 27), with no change for the 7 others. The largest decrease was recorded in Ireland, where the share of spending on alcoholic beverages was down 0.6 percentage points from 2.9% to 2.3%.



#### Share of total household consumption expenditure

Source: Eurostat (online data code: nama\_10\_co3)



#### Share of total household consumption expenditure

(%, 2022)

Note: NO, 2021. Source: Eurostat (online data code: nama\_10\_co3)

The share of household expenditure used for food, beverages and catering services varies considerably between EU countries. The lowest shares in 2022 were in Germany (17.1%) and Luxembourg (17.4%), while the highest were in Portugal (29.3%), Latvia (29.6%), Greece (29.8%) and Romania (30.3%).

In all EU countries except for Poland, food and catering services were the largest items of food, beverages and catering services expenditure in 2022; among these 2 items, food was generally the larger, although in Ireland, Spain, Malta and Austria the share of expenditure on catering services was higher. In Poland, food accounted for the highest share of expenditure, while the 2nd largest expenditure item was alcoholic beverages (ahead of catering services). Bulgaria, Italy and Malta were the only EU countries where expenditure on non-alcoholic beverages was higher than expenditure on alcoholic beverages.

In 2022, Germany had a 17.9% share of the EU's total household consumption expenditure on food, beverages and catering services. France (16.3%), Italy (14.6%) and Spain (12.0%) were the only other EU countries to record double-digit shares; Poland (5.3%) followed at some distance.

## Share of consumption expenditure on food, beverages and tobacco, by socioeconomic characteristics

(%, EU, 2020)





 Ist quintile
 Ist quintile

 2nd quintile
 Ist quintile

 3rd quintile
 Ist quintile

 4th quintile
 Ist quintile

 5th quintile
 Ist quintile

 0
 5
 10
 15
 20
 25

 Food and non-alcoholic beverages
 Alcoholic beverages, tobacco and narcotics

Note: the fieldwork for the 2020 survey took place between 2018 and 2022 for the majority of EU countries; data for FR, CY and MT were collected between 2015 and 2017. EU estimates excluding IE, PT, FI and SE. Household consumption expenditure data presented by age and activity status concern the status of the reference person (people aged 16 years or over, who are designated as the main income earner).

Source: Eurostat (online data codes:  $\underline{hbs\_str\_t221}, \underline{hbs\_str\_t223}$  and  $\underline{hbs\_str\_t225})$ 

The share of household consumption expenditure on food, beverage and tobacco products differs according to various socioeconomic characteristics. For example, households in which the reference person was 60 years of age or over spent just over a fifth (20.1%) of their household budget on food, beverage and tobacco products in 2020, which was 2.4 percentage points higher than the corresponding share recorded for households where the reference person was less than 30 years of age.

In a similar vein, people without work often spent a higher proportion of their total budget on food, beverage and tobacco products. For example, EU households where the reference person was unemployed spent, on average, 23.3% of their total budget on food, beverage and tobacco products in 2020, while the corresponding share for households where the reference person was a non-manual employee was 5.8 percentage points lower, at 17.5%.

Likewise, people with low incomes tend to spend a higher proportion of their household budget on food, beverage and tobacco products. For example, households in the 1st income quintile (the 20% of EU households with the lowest incomes) spent, on average, 21.4% of their total budget on food, beverage and tobacco products in 2020. This was 4.7 percentage points higher than the corresponding share recorded for households in the 5th income quintile (the 20% of EU households with the highest incomes).

#### Daily consumption of fruit and vegetables

(%, EU, persons aged 16 years and over, 2022)



Fruit and vegetables are considered important elements of a healthy, balanced diet; among other benefits, they provide vitamins, minerals and fibre. Studies have shown that a high intake of fruit and vegetables ('5 a day') is associated with a lower risk of chronic disease, such as certain cancers or cardiovascular disease.

Across the EU, 19.1% of all males (aged 16 years or over) ate fruit at least twice a day in 2022; the share for vegetables was somewhat lower, at 16.0%. Among females (of the same age) higher shares were recorded, with 24.4% eating fruit at least twice a day and 21.1% eating vegetables at least twice a day. At the other end of the range, 2.5% of all males didn't eat any fruit; the share for vegetables was lower at 1.0%. Among females, 1.6% didn't eat any fruit, while 0.7% didn't eat any vegetables.

Source: Eurostat (online data code: ilc\_hch11)

#### Share of the adult population, by body mass index and sex

(%, EU, people aged 18 years or over, 2022)



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The <u>body mass index (BMI)</u> is defined as someone's weight (in kilograms) divided by their height (in metres) squared. The BMI for adults (aged 18 years or over) provides an estimation of a person's body fat.

Underweight people are at greater risk, among other conditions, of malnutrition, decreased muscle strength or osteoporosis. Overweight people have an increased risk, among other conditions, of high blood pressure, coronary heart disease or type 2 diabetes.

In 2022, a higher share of women (2.5%) than men (0.7%) were underweight across the EU (with a BMI that was less than 18.5). At the other end of the scale, more than two fifths (43.6%) of all women were overweight (either pre-obese or obese; a BMI that was at least 25), compared with close to three fifths (59.6%) of all men. Among obese people (with a BMI of 30 or higher) the gender gap was relatively small, with shares of 14.0% for women and 15.7% for men.



#### Annual rate of change of consumer prices

Source: Eurostat (online data code: prc\_hicp\_aind)

Prices are a key consideration for many consumers when deciding what to eat and drink; they can also impact on the choice made in relation to more sustainable and healthy diets. There was a rapid increase in food and beverage prices across the EU during 2022 and 2023, which contributed towards a cost-of-living crisis.

Between 2013 and 2023, inflation (a rise in prices as measured by the all-items <u>consumer price index</u>) was 27.0% within the EU. Price increases for food, beverage and catering services were around this level or higher; during the same period, they were up 26.7% for alcoholic beverages, 30.5% for non-alcoholic beverages, 34.3% for catering services and 41.2% for food.



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#### Long-term and recent changes in consumer prices

(%, 2013-23 and 2022-23)



Note: ranked on the annual average rate of change for 2013–23.

EU consumer prices for alcoholic beverages rose, on average, 2.4% per year between 2013 and 2023. The price of food and non-alcoholic beverages and the price of catering services rose at a somewhat faster pace, averaging 3.4% and 3.0% per year, respectively.

In 2023, consumer prices for catering services, alcoholic beverages, and food and non-alcoholic beverages increased sharply; they jumped 8.1%, 9.1% and 12.6%,

Source: Eurostat (online data code: prc\_hicp\_aind)

respectively; these latest rates were considerably higher than their long-term averages.

Hungary and Slovakia recorded the highest annual price increases for food and non-alcoholic beverages in 2023, at 23.8% and 17.3%, respectively. At the other end of the range, there were only 4 EU countries where the price of food and non-alcoholic beverages increased by less than 10.0% – Cyprus, Denmark, Finland and Ireland.

## Annual change in consumer prices of selected food and beverage products

(%, EU, September 2023 and September 2024)



Note: other edible oils includes edible oils other than olive oil. *Source*: Eurostat (online data code: prc\_fsc\_idx) In recent years, several issues impacted global food prices, including

- pressure on supply chains (influenced by the COVID-19 crisis)
- the rising cost of energy and fertilisers

   major components of intermediate consumption for some farmers
- the rising cost of energy for food processors, transporters and distributors
- labour shortages.

While food prices increased at a rapid rate in 2022 and the 1st half of 2023, they abated thereafter. Food price inflation fell from 9.2% in September 2023 to 2.0% a year later; as such, the rate was 7.2 percentage points lower in August 2024 than a year before, although price levels for many food items remained at historic highs.

There was considerable variation in the annual price increases for selected food products across the EU. Olive oil recorded, by far, the highest price increases during the 12 months to September 2024, its price having risen by more than a fifth (up 21.8%). There were also relatively large price increases for a several other food and beverage products, such as butter and fruit and vegetable juices. By contrast, the price of eggs, other edible oils and sugar fell across the EU during the 12 months to September 2024.



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#### Price level comparisons

(EU = 100, 2023)



Source: Eurostat (online data code: prc\_ppp\_ind)

Despite considerable differences in the development of consumer prices over the last decade, a geographic pattern endures in relation to <u>price levels</u> for food. Several eastern EU countries had price levels below the EU average, as did the Netherlands, Spain, Lithuania and Portugal. The Nordic and most western EU countries tended to have above average food prices as did Malta and Estonia. In Romania, food prices were 72.7% of the EU average, whereas in Luxembourg they were 120.3% of the EU average; these were the lowest and highest food price levels in 2023. For non-alcoholic beverages, only 5 EU countries had price levels below the EU average in 2023. They included 5 of the 6 most populous EU countries – Italy, Romania, Poland, France and Germany. Price levels for non-alcoholic beverages ranged from 82.2% of the EU average in Italy to 142.0% in Latvia.

A similar situation was observed for alcoholic beverages, with all 6 of the most populous EU countries among the 10 that reported price levels below the EU average in 2023. Price levels for alcoholic beverages ranged from 83.3% of the EU average in Austria to 201.5% in Ireland and 202.3% in Finland. This large range may, in part, reflect differences in the taxation of alcoholic beverages.

## Share of people unable to afford a meal with meat, chicken, fish or a vegetarian equivalent every second day, by type of household

(%, EU, 2023)



Almost 1 in 10 (9.5%) people in the EU were unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day in 2023. The issue of food affordability was particularly severe among people living in households composed of a single person with dependent children where 17.5% were unable to afford such a meal every second day. This share was 2.8 times higher than the share recorded for people living in households composed of 2 adults with 2 dependent children, where 6.2% faced the same difficulty.

## Share of people unable to afford a meal with meat, chicken, fish or a vegetarian equivalent every second day



Source: Eurostat (online data code: ilc\_mdes03)

The share of people in the EU unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day increased from 8.3% to 9.5% between 2022 and 2023, reflecting, in part, the accelerating price of food and the on-going cost-ofliving crisis. In Romania, this share was 23.3% in 2023, which was the highest share recorded among EU countries. By contrast, fewer than 2.0% of people in Cyprus and Ireland faced this difficulty. In France, the share of people in the EU unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day rose 2.7 percentage points between 2022 and 2023, up from 9.5% to 12.2%; this was the highest absolute increase among EU countries, with relatively large increases also observed in Czechia, Slovakia and Malta (up 2.4, 2.0 and 1.9 percentage points, respectively).
# Consumption and environmen **Agriculture and food:**

# Share of EU consumption of inorganic fertilisers

#### (% based on tonnes, 2022)

120

environment

Inorganic and organic fertilisers are widely used in agriculture to optimise production. Excessive use of inorganic fertilisers may lead to environmental pollution. Based on the latest available information, the quantity of nitrogen-based fertilisers applied to agricultural land in the EU was almost 9 million tonnes in 2022, while the consumption of phosphorous-based fertilisers was almost 1 million tonnes. Unsurprisingly, the EU countries that used the most fertilisers included some of the biggest agricultural producers with considerable areas given over to agriculture. In 2022, France had the highest consumption of nitrogen-based fertilisers (22.3% of the EU total) and phosphorousbased fertilisers (19.1%).

Note: EU total (used to calculate the shares) includes earlier reference periods for some EU countries. PL: 2021. CY and MT: 2019. Source: Eurostat (online data code: aei fm usefert)

# Consumption of inorganic fertilisers

Note: EU total for inorganic fertilisers includes earlier reference periods for some EU countries. PL and CH: 2021 instead of 2022. CY and MT: 2022, not available.

Combining the extent of fertiliser use and the utilised agricultural area provides a standardised measure. In 2022, the average amount of inorganic fertilisers used on each hectare of agricultural land across the EU was 61.0 kilograms. The Netherlands had the highest rate of consumption, at 110.3 kilograms per hectare, while Czechia and Belgium used 90 to 100 kilograms per hectare. In Portugal, Spain and Greece, inorganic fertiliser consumption was below 40.0 kilograms per hectare.

Source: Eurostat (online data codes: aei\_fm\_usefert and apro\_cpnh1)

Between 2012 and 2022, the use of inorganic fertilisers relative to the utilised agricultural area in the EU decreased 7.0%. In 15 out of the 25 FU countries for which data are available, there was a decrease in this ratio, with falls of more than 30.0% in Luxembourg, Portugal and Germany. By contrast, consumption per hectare increased at a rapid pace in Romania (up 74,2%) and Bulgaria (up 49.4%).

(kg per hectare of utilised agricultural area, 2012 and 2022)







## Overall change in the risk from pesticide use

(%, 2022 compared with average for 2011–2013)

Note: this indicator covers all sectors of the economy, not just sales to agriculture. More information on harmonised risk indicators is available from the European Commission's website. Source: Eurostat (online data code: aei\_hri)

The types of active substances used in <u>pesticides</u> are changing, so the quantity of sales alone isn't indicative of the potential hazards associated with the use of pesticides. <u>Harmonised Risk Indicator 1</u> includes estimates of the risk from pesticide use based on the active substances content.

The risk from pesticide use in the EU was 50% lower in 2022 compared with the average for 2011 to 2013. During this period, the risk from pesticide use declined in the vast majority of EU countries. The largest decreases (more than 60%) were observed in Romania, Luxembourg, Spain and Greece. The risk from pesticide use rose in the 3 Baltic countries and Austria (which had the highest increase, up 19%). Note that such increases may occur for countries starting from a baseline that was much lower than the EU average.

### Share of EU pesticide sales

(% based on kilograms, 2022)

IT 8.5

13.8

FR



Insecticides and

acaricides

21.1

ES





Note: EU totals (used to calculate the shares) include 2021 data for EE for fungicides and bactericides and ES, MT and SE for plant growth regulators and exclude LU for fungicides and bactericides as well as EE and LU for insecticides and acaricides. Due to rounding, not all shares sum to 100.0%.

The quantity of pesticides sold across the EU in 2022 was around 322 000 tonnes; this figure was 9.7% lower than the level of sales a year before.

The EU countries making the greatest use of pesticides varied depending on the type. In 2022, Germany used the most insecticides and acaricides (37.4% of the EU total) and plant growth regulators (20.3%), Spain the

Source: Eurostat (online data code: aei\_fm\_salpest09)

most fungicides and bactericides (23.3%), and France the most herbicides, haulm destructors and moss killers (26.5%).

More information: consumption of pesticides.

## Share of agriculture in greenhouse gas emissions

(% based on tonnes of CO<sub>2</sub> equivalents, EU, 1990 and 2022)



Source: Eurostat (online data code: env\_air\_gge)

In 2022, agricultural processes in the EU produced 366 million tonnes of  $CO_2$ -equivalents of greenhouse gases. Although emissions from agriculture fell by almost a quarter (down 24.3% between 1990 and 2022), agriculture's share of all greenhouse gas emissions increased from 9.8% in 1990 to 10.5% in 2022.

The primary greenhouse gases emitted from agriculture are methane, which is 25 times more potent as a greenhouse gas than carbon dioxide, and nitrous oxide. Agriculture is the largest source of emissions for both. In 2022, it accounted for 58.4% of all methane emissions and 76.2% of all nitrous oxide emissions in the EU; both of these shares increased during the last 3 decades.

There are 3 main greenhouse gases emitted in relation to agricultural processes: carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ) and nitrous oxide ( $N_2O$ ). Expressing each gas in tonnes of <u> $CO_2$ -equivalents</u> based on their <u>global warming potential</u> relative to that of carbon dioxide, facilitates the comparison and combination of their emissions.

# Share of EU emissions from agriculture

(% based on tonnes of CO<sub>2</sub> equivalents, 2022)



Note: due to rounding, not all shares sum to 100.0%. Source: Eurostat (online data code: env\_air\_gge) Agricultural greenhouse gas emissions are a function, among other factors, of the interplay between agricultural area, practices and intensification, fertiliser use, climate and soil conditions, as well as policy decisions, technological adoption and economic conditions. EU countries with intensive livestock and crop farming systems generally produce the most emissions. In 2022, France had the highest level of methane and nitrous oxide emissions from agriculture (17.9% and 16.3%, respectively, of the EU total), followed by Germany (14.8% and 13.2%, respectively).



# Structure of agricultural greenhouse gas emissions

(% based on tonnes of CO<sub>2</sub> equivalents, EU, 2022)



Source: Eurostat (online data code: env\_air\_gge)

Enteric fermentation - the fermentation of feed during the digestive processes of animals - is a principal source of methane emissions. Agricultural soils are a leading source of emissions of carbon dioxide, methane and nitrous oxide; they can also be a sink, storing greenhouse gases. Around two thirds of emissions from manure management are of methane and the rest are of nitrous oxide.

Emissions from enteric fermentation made up almost half (49.4%) of all the EU's greenhouse gas emissions from agriculture in 2022, followed by managed agricultural soils (29.6%) and manure management (17.0%).

# **Developments in greenhouse gas emissions**

 $(1990 = 100, based on tonnes of CO_2 equivalents, EU, 1990-2022)$ 



Greenhouse gas emissions from agriculture fell rapidly between 1990 and 1992 and subsequently continued to decline through to 2012. Thereafter, they increased at a modest pace (up 3.3% between 2012 and 2017), before resuming a downward trend (falling 5.3% between 2017 and 2022).

0.9

Between 1990 and 2022, there was a fall in EU greenhouse gas emissions from agriculture (down overall by 24.3%). Such emissions from managed agricultural soils fell by 26.1%, from enteric fermentation by 23.8% and from manure management by 22.4%. For comparison, greenhouse gas emissions from all sources decreased 29.2% across the whole of the EU economy during the same period.

# greenhouse gas emissions by source sector.

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# Developments of waste generation from productive activities



(million tonnes, EU, 2012–22)

Reducing food loss and <u>waste</u> is an integral part of the *Farm to Fork Strategy action plan*. The figures presented in this section cover all types of waste generated in productive activities (including, among others, waste from food, feed, by-products and other plant or animal products). Agriculture, forestry and fishing and the processing of food, beverage and tobacco generated a combined 55.1 million tonnes of waste across the EU in 2022. Together these activities accounted for 2.7% of all waste from productive activities.

Across the EU, waste generated by food, beverage and tobacco processing fell overall by 15.7% between 2012 and 2022; with decreases each 2 years except in 2018. By contrast, the level of waste from agriculture, forestry and fishing increased each 2 years, other than a contraction in 2014; this waste stream increased 10.6% overall during the period under consideration.



(kg per inhabitant, 2022)

**Food** waste

Note: estimates made for the purpose of this publication, based on rounded data. EL and LT: 2021. ES: 2020. *Source*: Eurostat (online data code: <u>env\_wasfw</u>)

In 2022, the collection of food waste in the EU averaged 132 kilograms of fresh mass per person; just over half (54%) of this quantity was from households. Close to a fifth (19%) of all food waste was collected from the processing and manufacturing of food and beverages.

Portugal (123 kilograms per inhabitant) and Italy (100 kilograms per inhabitant) had the highest ratios of food waste collected from households in 2022. By contrast, Slovenia had the lowest ratio (33 kilograms per inhabitant). The highest ratios of food waste collected from food and beverage serving activities were recorded in Malta and Cyprus, where the quantity of waste was likely inflated by relatively high numbers of international tourists, as well as in Ireland. Note that Ireland and Malta were among the 4 EU countries where household expenditure on catering services was higher than expenditure on food; the other 2 countries were Spain and Austria.

More information: food waste statistics.

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# **KEY FIGURES ON**

# THE EUROPEAN FOOD CHAIN

2024 EDITION

*Key figures on the European food chain* chain provides a selection of indicators on the food chain, from primary production in agriculture and fisheries through to consumption. Data are presented for the European Union (EU), EU countries and European Free Trade Agreement (EFTA) countries.

For some readers, this publication may offer an introduction to agriculture, fisheries and food chain statistics, while others can use it as a starting point to explore further a wide range of data and information. These are freely available on Eurostat's website and in *Statistics Explained*.

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