

4 Oilseeds and oilseed products

This chapter describes market developments and medium-term projections for world oilseed markets for the period 2023-32. Projections cover consumption, production, trade and prices for soybean, other oilseeds, protein meal, and vegetable oil. The chapter concludes with a discussion of key risks and uncertainties which could have implications for world oilseed markets over the next decade.

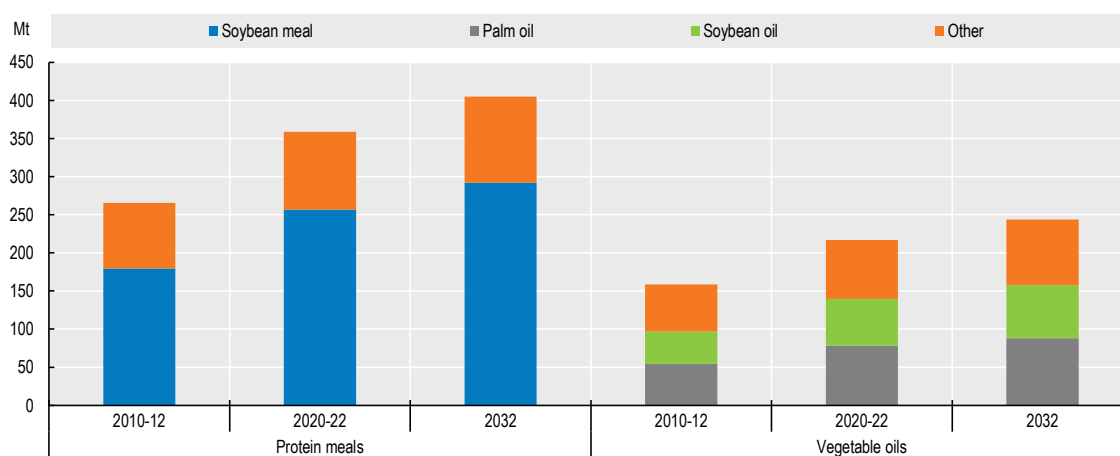
4.1. Projection highlights

Continued demand for vegetable oil will drive oilseed markets

Food use of *vegetable oils* should account for 57% of total consumption in 2032, driven by population growth and increased per capita use of vegetable oil in lower – and middle-income countries. The vegetable oil aggregate in this *Outlook* includes oil obtained from the crushing of oilseeds (about 55% of world vegetable oil production) and palm oil (36%), as well as palm kernel, coconut, and cottonseed oils. The use of vegetable oil for biodiesel, currently about 16% of global vegetable oil use, is projected to grow globally, especially in emerging markets like Indonesia and Brazil and in the United States, while declining use in the European Union, still the largest producer of biodiesel.

Protein meal utilisation will be constrained by slower growth in global poultry and livestock production, especially in high-income countries, as it is almost entirely used as animal feed. Soybean meal accounts for about three-quarters of the global protein meal sector (Figure 4.1). Demand growth in the People’s Republic of China (hereafter “China”) is expected to slow down considerably, driven by improved feed efficiency combined with efforts to achieve lower protein meal shares in livestock feed rations. In the European Union, the second-largest user of protein meal, consumption is expected to decline as growth in animal production slows and other protein sources are increasingly used in feed. By contrast, in Southeast Asia increasing animal production is projected to raise demand for imports of protein meal.

Figure 4.1. Protein meal and vegetable oil production by type



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/szk0yg>

In view of a slowdown in the expansion of the mature oil palm area, *palm oil* production growth in Indonesia and Malaysia is projected to be limited. Assuming increased replanting and increased mechanisation, a slight recovery in palm oil yields is expected over the outlook period. Palm oil production in other tropical countries is expected to expand more strongly, but Indonesia and Malaysia are still projected to account for 81% of global palm oil production.

Soybean production is expected to be dominated by yield improvements accounting for about three-quarters of the global growth while the expansion of harvested area, including increased double-cropping in Latin America, accounts for the remaining quarter. Soybean production is expected to reach 415 Mt by

2032, more than double the combined output of other oilseeds at 189 Mt. Brazil, the world largest producer and exporter, and the United States are expected to account for about two-thirds of world soybean production and more than 80% of global soybean exports.

Production of *other oilseeds* is projected to increase at a slower rate compared to the last decade, due to increasing competition by cereals for limited arable land in China and the European Union as well as stagnating demand for rapeseed oil as a feedstock in European biodiesel production. In general, the cultivation of other oilseeds such as rapeseed and sunflower seed is much less concentrated than that of soybeans. China, the European Union, Canada, and Ukraine each produce between 16 Mt to 36 Mt of these oilseeds. However, Russia's war against Ukraine is causing disruptions in sunflower seed production, processing and trade.

The world's leading suppliers of *palm oil*, Indonesia and Malaysia, will continue to dominate the vegetable oil trade, exporting more than 60% of their combined production and jointly accounting for nearly 60% of global vegetable oil exports. India, the world's biggest importer of vegetable oil, is projected to maintain its high import growth to satisfy growing domestic demand. Due to declining use for biodiesel production, imports of vegetable oil by the European Union are expected to decline strongly. Growth in world exports of soybeans, another product with a high trade share dominated by the Americas, is expected to slow considerably over the next decade due to the projected slower growth in soybean import demand by China.

While in the 2021 marketing year prices in the oilseed sector were at record highs, the current downward adjustment is expected to continue during the first years of the outlook period. Thereafter, prices are expected to increase slightly in nominal terms, while declining in real terms for oilseeds and protein meal following the long-term trend of agricultural commodity prices. Prices of vegetable oil could increase in real terms due to continued strong demand growth and limited potential for production expansion.

The use of vegetable oil as biodiesel feedstock is mostly determined by biofuel policies, which include countries' mandated blending ratios. In particular, the use by some countries of Sustainable Aviation Fuel (SAF) holds potential and could result in strong demand growth for vegetable oil. The future demand for protein meal in China depends on the balance between feed intensity and efficiency especially in rebuilding the pig meat sector, following African Swine Fever (ASF) as from 2018. The scope to increase palm oil output in Indonesia and Malaysia will increasingly depend on oil palm replanting activities and accompanying yield improvements (rather than area expansion), creating new challenges as yields of palm oil have been stagnant for several years. Sustainability concerns (i.e. deforestation and the use of sustainability certifications for vegetable oil) and concerns about the high saturated fat content of palm oil also influence the consumer acceptance and demand for palm oil.

4.2. Current market trends

Nominal prices are high but declining from record levels

International prices for oilseeds fell from record high levels observed in 2022 but remained above the average level of recent years in early 2023, mainly reflecting fluctuating prices for soybeans, sunflower seeds, and rapeseed. Meanwhile, world vegetable oil prices continued declining from record highs observed in early 2022, driven by lower world prices of palm, soy, sunflower seed and rapeseed oils. Concerning oil meals, international soymeal quotations rebounded in recent months, primarily underpinned by prospects of deteriorating production and crushing in Argentina.

Global soybean production in 2022/23 was lower than initially expected, largely tied to protracted dry conditions in Argentina, while harvest expectations in Brazil remain positive due to favourable weather conditions in most of the growing regions. In Indonesia, palm oil production is expected to increase in 2023, despite recent excessive rainfall in some areas that impeded the harvesting activities. In February, the

Indonesian Government imposed temporary exports limits on palm oil, in order to secure enough domestic cooking oil. In Malaysia, palm oil production is also growing, thanks to generally conducive weather as well as to the gradual improvement of lingering labour shortages issues.

There are many uncertainties that can influence the market in the coming months, such as adverse climatic conditions, changes in policies, and the evolution of the Russia's war against Ukraine.

4.3. Market projections

4.3.1. Vegetable oil consumption

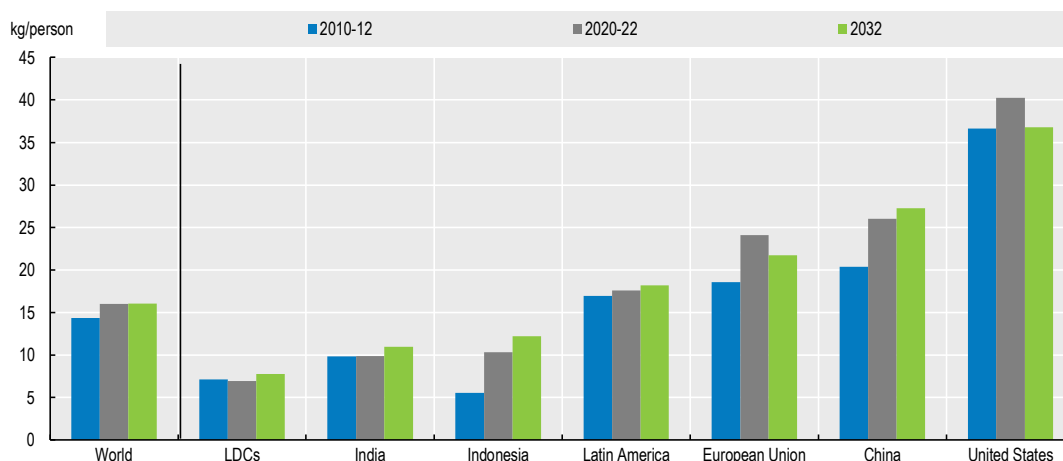
Demand for vegetable oil for food is slowing down

The two dominant uses of vegetable oil are for human consumption (57%) and a feedstock for the production of biodiesel (16%). In addition, vegetable oils are also used for cosmetics, varnishes, and increasingly in animal feed, especially for aquaculture.

Per capita consumption of vegetable oil for food is projected to grow by 0.1% p.a., considerably less than the 0.8% p.a. increase observed during 2013-22 due to declining food demand in high-income countries. In emerging markets such as China (27 kg/capita) and Brazil (23 kg/capita), the consumption of vegetable oil for food is set to reach levels comparable to those of wealthier economies (Figure 4.2).

India, the world's second largest consumer and main importer of vegetable oil, is projected to sustain a per capita consumption growth of 1% p.a., reaching almost 11 kg/capita by 2032. This substantial increase will be the result of both increases in its domestic production, crushing of increased domestic oilseed production, and imports of mainly palm oil from Indonesia and Malaysia. As urbanisation increases in low-income countries, dietary habits and traditional meal patterns are expected to shift towards processed foods that have a high content of vegetable oil. For least developed countries (LDCs), the per capita availability of vegetable oil is projected to increase by 1.2% p.a., to reach 8 kg per capita by 2032 due to higher incomes.

Figure 4.2. Per capita food consumption of vegetable oil in selected countries

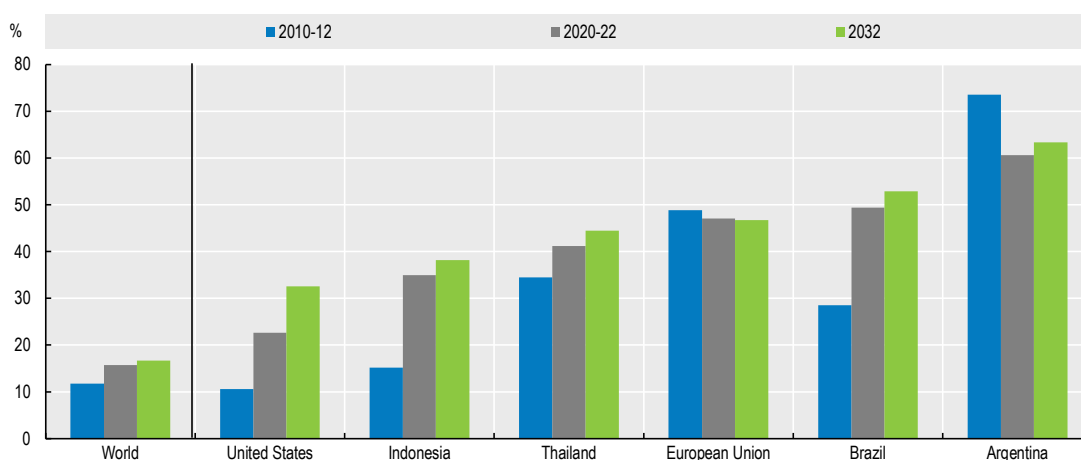


Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/18lp0u>

The uptake of vegetable oil as feedstock for biodiesel (about 16% of global vegetable oil use) is projected to increase slower over the next ten years, compared to the 6.5% p.a. increase recorded over the previous decade when biofuel support policies took effect (Figure 4.3). The use of vegetable oil as feedstock for biodiesel depends on the policy setting (Chapter 9) and the relative price development of vegetable oil and crude oil (see below). In general, national targets for mandatory biodiesel consumption are expected to increase less than in previous years. In addition, used oils, tallow, and other feedstocks are increasing their share in the production of biodiesel, especially in the European Union, largely due to specific policies. In the United States, Hydrotreated Vegetable Oil (HVO) or Renewable Diesel is considered an advanced biofuel and is expected to drive the considerable growth of biodiesel production. In Indonesia, the growth in the use of vegetable oil to produce biodiesel is projected to remain strong and reach 10.1 Mt by 2032 due to supportive domestic policies.

Figure 4.3. Share of vegetable oil used for biodiesel production



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

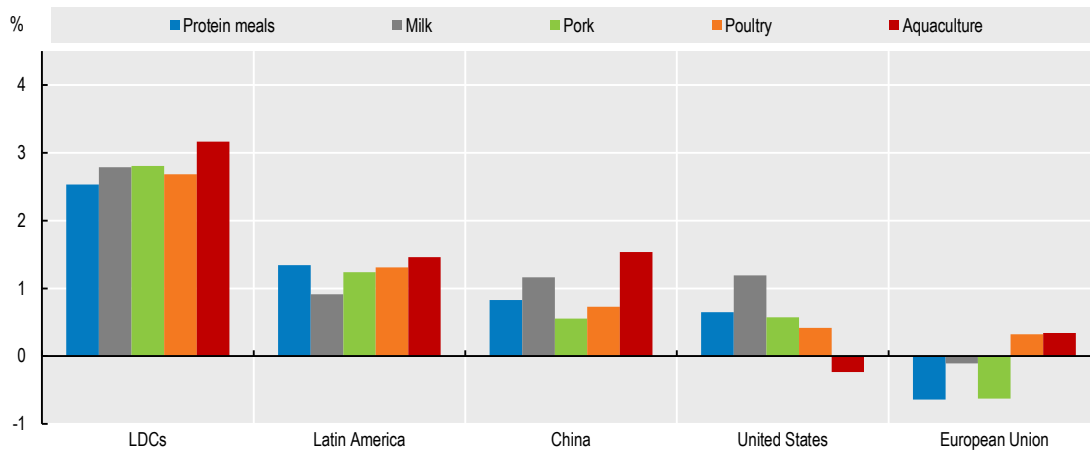
StatLink 2 <https://stat.link/la6h5j>

4.3.2. Protein meal consumption

Feed demand is slowing, shaped by developments in China

Protein meal is exclusively used as feed and its consumption is projected to continue to grow at 0.9% p.a., considerably below that of the last decade (2.9% p.a.). The link between feed use of protein meal and animal production is related to the intensification of animal production, which increases demand for protein meal, whereas feeding efficiencies lead to a reduction of protein feed per animal. Moreover, the composition of animal husbandry and herd sizes are additional factors. The link between animal production and protein meal consumption is associated with a country's level of economic development (Figure 4.4). Lower income countries, which rely on backyard production, consume less protein meal, whereas higher income economies which employ intensive production systems use higher amounts of protein meal. Because of a shift to more feed-intensive production systems in developing countries in response to rapid urbanisation and increasing demand for animal products, growth in protein meal consumption tends to exceed growth in animal production.

Figure 4.4. Average annual growth in protein meal consumption and animal production (2023-32)



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/0ipkmb>

In LDCs, where the use of protein meals is very low, intensification in livestock production with growing use of compound feed is expected to continue. Nevertheless, due to strong growth of animal production, average use of protein meal per animal output continues to decline.

China accounts for more than a quarter of global protein meal demand and is therefore shaping global demand. Growth in China's demand for compound feed is expected to be slower than in the previous decade due to declining growth rates for animal production and the existing large share of compound feed-based production. The protein meal content in China's compound feed is expected to remain stable after it surged in the last decade but continues to exceed current levels in the United States and European Union.

In the European Union, and the United States, protein meal consumption is expected to grow at a slower rate than animal production due to improving feeding efficiencies. In addition, animal products, primarily poultry and dairy, are increasingly marketed in the European Union as produced without feed use from genetically modified crops, driven by large retail chains that results in lower demand for soybean meal.

4.3.3. Oilseed crush and production of vegetable oils and protein meal

Slowing global oilseed crush and limited growth in palm oil production

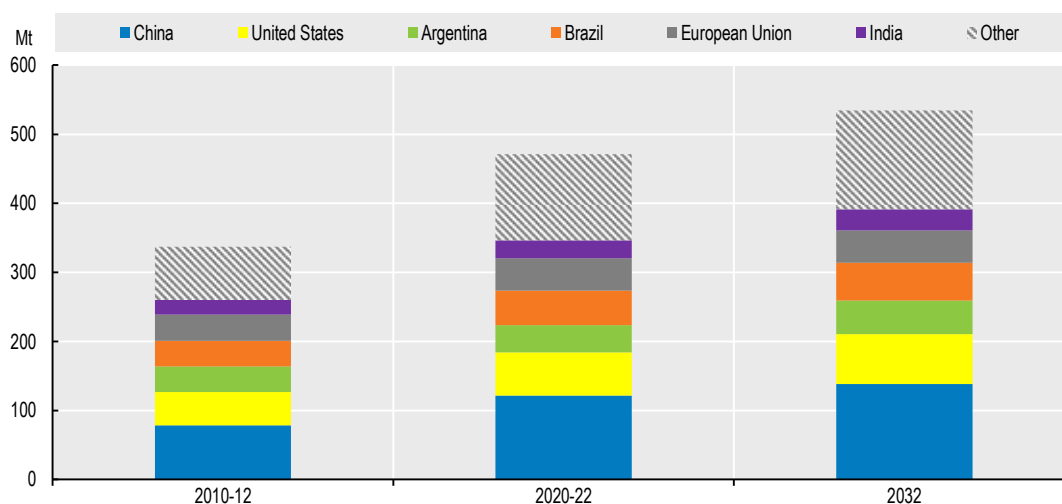
Globally, the crushing of soybeans and other oilseeds into meal (cake) and oil accounts for about 90% of total usage. The demand for crush will increase faster than demand for other uses, notably direct food consumption of soybeans (including for meat and dairy replacements), groundnuts and sunflower seeds, as well as direct feeding of soybeans. The crush location depends on transport costs, trade policies (e.g. different tariffs for oilseeds and products), acceptance of genetically modified crops, processing costs (e.g. labour and energy), and infrastructure (e.g. crushing facilities, ports and roads).

Soybean crush is projected to expand by 44 Mt over the *Outlook* period, significantly less than the 75 Mt in the previous decade. Chinese soybean crush is projected to increase by 9 Mt, accounting for about 21% of the world's additional crush, the bulk of which will utilise imported soybeans. The growth in China, although large, is projected to be considerably lower than in the previous decade. Global crush of other

oilseeds is expected to grow in line with production by 19 Mt over the *Outlook* period and to occur more often in the producing country.

Global protein meal output from oilseed crush is projected to increase by 0.9% p.a., reaching 405 Mt by 2032. World production of protein meals is dominated by soybean meal, which accounts for more than two-thirds of world protein meal production. Production is concentrated in a small group of countries (Figure 4.5). In China and the European Union, most protein meal production comes from the crushing of imported oilseeds, primarily soybeans from Brazil and the United States. In the other important producing countries – Argentina, Brazil, India, and the United States – domestically-produced soybeans and other oilseeds dominate.

Figure 4.5. Oilseed crush by country or region



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/10utq5>

Global *vegetable oil* production depends on both the crush of oilseeds and the production of perennial tropical oil plants, especially palm oil. Global palm oil output has outpaced the production of other vegetable oils over the past decade. However, growth in production is expected to weaken due to increasing sustainability concerns and the aging of oil palm trees in Indonesia and Malaysia, which account for almost one-third of the world's vegetable oil production and for more than 80% of global palm oil production.

At the global level, palm oil supplies are projected to expand at an annual rate of 0.8%. Increasingly stringent environmental policies from the major importers of palm oil and sustainable agricultural norms (e.g. in line with the 2030 UN Agenda for Sustainable Development) are expected to slow the expansion of the oil palm area in Indonesia and Malaysia. This implies that growth in production comes increasingly from productivity improvements, including an acceleration of replanting. Palm oil production in other countries is expected to expand more rapidly from a low base, mainly for domestic and regional markets. For example, Thailand is projected to produce 3.5 Mt by 2032, Colombia 2.6 Mt, and Nigeria 1.7 Mt. In several Central American countries, niche palm oil production is developing with global sustainability certifications in place from the outset, positioning the region to eventually reach broader export markets.

The vegetable oil complex includes palm kernel, coconut and cottonseed oil, as well as palm oil and oil extracted from the crush of oilseeds as noted above. Palm kernel oil is produced alongside palm oil and

follows the production trend of the latter. Coconut oil is mainly produced in the Philippines, Indonesia, and Oceanic islands. Palm kernel oil and coconut oil have important industrial uses, now dominated by palm kernel oil with a by-product of the growing production of palm oil. Cottonseed oil is a by-product of cotton ginning (Chapter 10), with global production concentrated largely in India, the United States, Pakistan, and China. Overall, vegetable oil production is projected to increase globally by 0.9% p.a., driven mainly by food demand in low- and middle-income countries resulting from population and income growth.

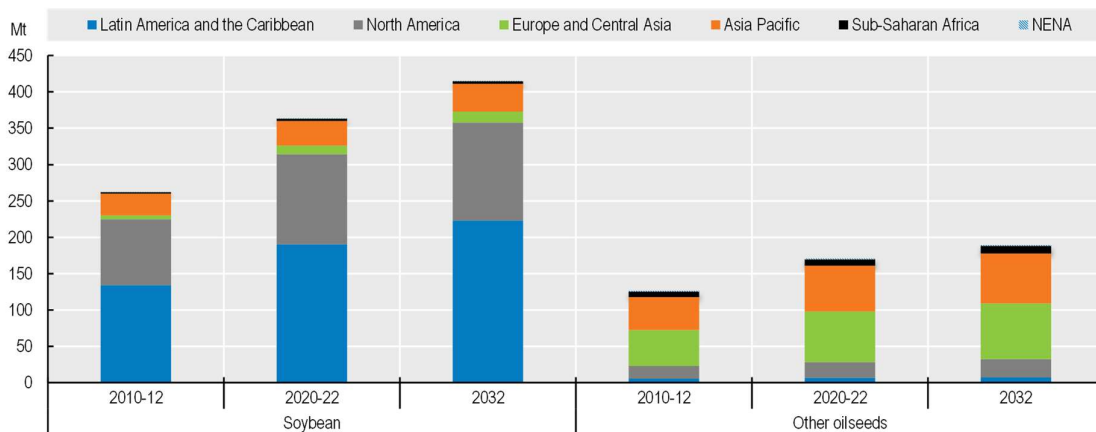
4.3.4. Oilseed production

Soybean production shifts to Latin America while palm oil and rapeseed yield growth is sluggish

The production of soybeans is projected to grow by 0.9% p.a., compared to 2.2% p.a. over the last decade. Growth will be dominated by yield increases, accounting for almost three-quarters of production growth. Soybeans benefit from their fast growth, which allows for double cropping, especially in Latin America. Consequently, a considerable share of additional harvested area increase will result from double-cropping soybeans following maize in Brazil and wheat in Argentina.

Brazil has in recent years been the largest producer of soybeans and is expected to grow at 0.8% p.a. over the next decade – slightly stronger than the United States, the second largest producer, at 0.6% p.a., due to double cropping with maize. The production of soybeans is projected to grow strongly elsewhere in Latin America, with Argentina and Paraguay producing 51 Mt and 12 Mt, respectively, by 2032 (Figure 4.6). In China, soybean production is expected to continue to increase in response to reduced policy support for the cultivation of cereals, but at slower pace than the previous decade. Soybean production is also expected to increase in India, the Russian Federation (hereafter “Russia”), Ukraine, and Canada.

Figure 4.6. Oilseed production by region



Note: NENA stands for Near East and North Africa, and is defined as in Chapter 2.

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/26ek0m>

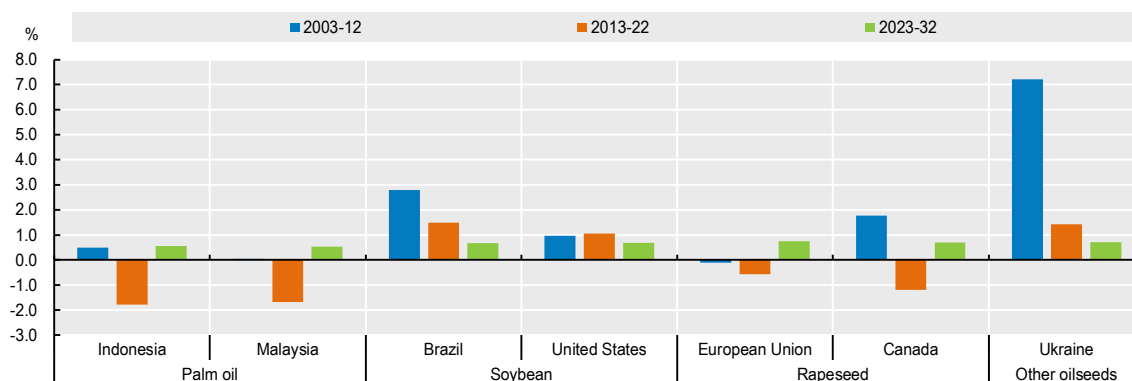
The production of other oilseeds (rapeseed, sunflower seed, and groundnuts) will also grow at a slower pace, at 0.9% p.a. compared to 2.6% p.a. over the previous ten years (2013-2022). China (a major producer of rapeseed and groundnuts) and the European Union (which mainly produces rapeseed and sunflower seeds) are the most important producers of other oilseeds, with a projected annual output of

40 Mt and 30 Mt, respectively, by 2032. However, limited growth in output is projected for both regions (0.8% p.a. for China and 1.0% p.a. for the European Union) as relatively higher prices for cereals are expected to generate strong competition for limited arable land. Canada, another major producer and the largest exporter of rapeseed, is projected to increase its production of other oilseeds by 1.2% p.a., to reach 20 Mt by 2032.

Decomposing production between the contribution of yield and area shows that yields for major producers of palm oil and for some major suppliers of rapeseed have fallen or grown slowly during the last decade (Figure 4.7). There are many reasons for this development; 1) a strong increase in production area so that less favourable land is used for production reducing average yields; 2) the ageing of oil palms as well as labour shortages has reduced yields; 3) restrictions in the use of pesticides adversely affected average rapeseed yields in the European Union; and 4) shifting weather patterns adversely affected yields. It remains uncertain how this will play out over the coming decade, but lower area expansion could result in a recovery in yields over the *Outlook* period. If this is not the case it will be a challenge to satisfy growing demand, especially for vegetable oil.

Soybean stocks are projected to reach a stock-to-use ratio of almost 12% by 2032, which remains low compared to the past two decades, so harvest failures could quickly lead to market shortages.

Figure 4.7. Average annual yield growth for palm oil and oilseeds



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/0528b7>

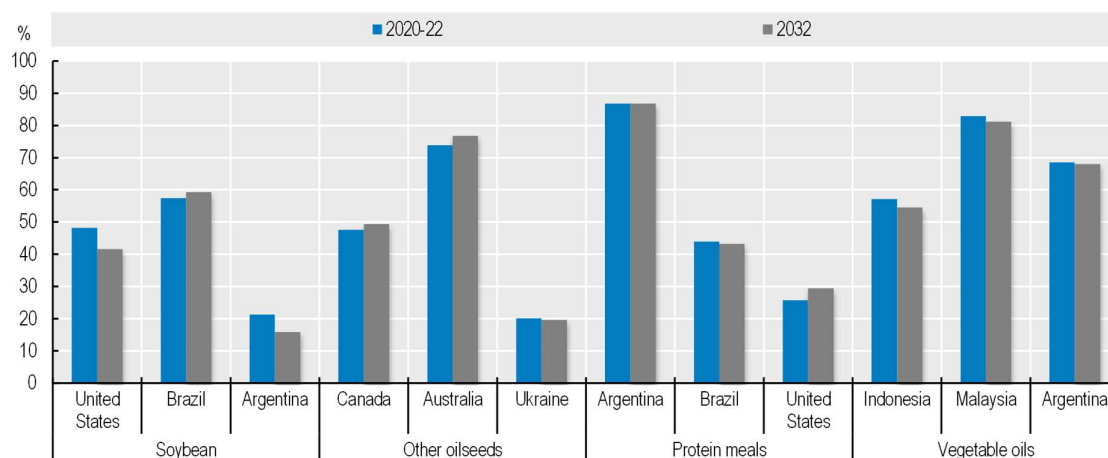
4.3.5. Trade

Trade is significant for oilseeds and products, but slowing down

Over 40% of world soybean production is traded internationally, a high share compared to other agricultural commodities. The expansion in world soybean trade is directly linked to projected slower growth of the soybean crush in China and Chinese imports are projected to grow by 0.7% p.a. to about 102 Mt by 2032 (down from 4.0% p.a. in 2013-2022), accounting for about 60% of world soybean imports. Exports of soybeans originate predominately from Brazil and the United States. Whereas the United States was historically the largest global exporter of soybeans, Brazil has now taken over with steady growth in its export capacity and is projected to account for 53% of total global exports of soybean by 2032.

For other oilseeds, the internationally traded share of global production remains much lower at about 14% of world production as the two largest producers, China and the European Union, are net-importers. The main exporters are Canada, Australia, and Ukraine, which are projected to account for 70% of world exports by 2032. In Canada and especially in Australia, more than half of the production of other oilseeds (primarily rapeseed) is exported (Figure 4.8). Additional oilseed production is crushed domestically and exported in the form of vegetable oil or protein meal.

Figure 4.8. Share of exports in total production of oilseeds and oilseed products for the top three exporting countries



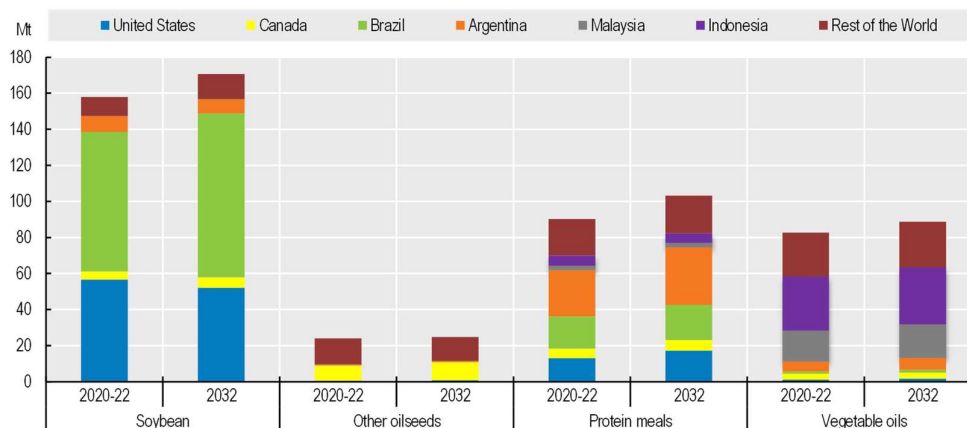
Note: The figure only shows the direct share of exports and does not include the export of further processed products, which would lead to higher export shares.

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/30hmk1>

Vegetable oil exports, which amount to 38% of global vegetable oil production, continue to be dominated by a few players. Indonesia and Malaysia are expected to continue to account for almost 60% of total vegetable oil exports during the *Outlook* period (Figure 4.9). However, the share of exports in production is projected to contract slightly in these countries as domestic demand for food, oleochemicals, and, especially, biodiesel uses is expected to grow. India is projected to continue its strong growth in imports at 1.5% p.a., reaching 18 Mt by 2032, to meet increasing demand driven by population growth, urbanisation, and rising disposable income.

The projected growth in world trade of protein meal is 0.9% p.a. over the *Outlook* period and Argentina is expected to remain by far the largest meal exporter with its clear export orientation. The largest importer is the European Union, with imports expected to decline due to reduced domestic demand for protein meal. More than three-quarters of the global import growth in protein meal is projected to occur in Asia, in particular in Southeast Asia with its increasing animal production. As the domestic crushing capacity in Asian countries is not expected to keep pace with protein meal demand, expansion of the livestock sector is expected to require imported feed.

Figure 4.9. Exports of oilseeds and oilseed products by region

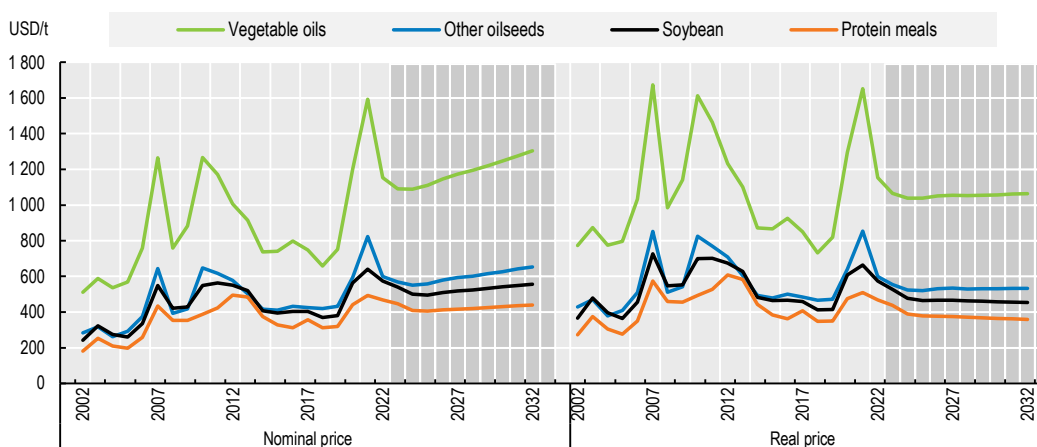
Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/9cpvm2>

4.3.6. Prices

Current high prices will weaken over the next decade

A downward adjustment is expected during the first years of the *Outlook* period, reflecting expectations of better production prospects, partly fueled by the incentive of current high prices. Thereafter, prices are expected to increase slightly in nominal terms, while declining in real terms following the long-term trend of agricultural commodity prices (Figure 4.10). Due to expected stronger demand for vegetable oil than protein meal, prices of vegetable oil are projected to rise compared to protein meal. This will also favour other oilseeds prices over soybeans as they contain higher shares of vegetable oil.

Figure 4.10. Evolution of world oilseed prices

Note: Soybeans, US, c.i.f. Rotterdam; Other oilseeds, Rapeseed, Europe, c.i.f. Hamburg; Protein meal, production weighted average price for soybean meal, sunflower meal and rapeseed meal, European port; Vegetable oil, production weighted average price for palm oil, soybean oil, sunflower oil and rapeseed oil, European port. Real prices are nominal world prices deflated by the US GDP deflator (2022=1).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/gwcz7q>

4.4. Risks and uncertainties

Environmental concerns will influence global oilseed supply chains

The scope for increasing palm oil output in Indonesia and especially in Malaysia will increasingly depend on replanting and yield improvements rather than new area expansion. In recent years, growth in production has been sluggish given the low profitability of the sector and rising labour costs in Malaysia. There has been some replanting progress by major palm oil companies in Indonesia. In addition to the slowdown in yields, sustainability concerns will also influence the expansion of palm oil output as demand in developed countries favours deforestation-free oils and seeks sustainability certification for vegetable oil used as biodiesel feedstock and, increasingly, for vegetable oils entering the food chain. However, there are concerns with competing certification schemes in Malaysia and Indonesia.

Other consumer concerns regarding soybeans stem from the high share of production derived from genetically modified seeds. In the European Union in particular, retailer certification schemes of animal products based on feed free of genetically modified products are gaining momentum and may shift feed demand to other protein sources than soybean meal. This may further reduce protein meal demand as the European Union accounted for 13% of global demand in 2020-22. Heightened environmental concerns are especially related to a potential link between deforestation and increasing soybean production in Brazil and Argentina. These concerns have motivated the private sector to incentivise the use of land already cleared for further area expansion to avoid further deforestation. If successful, these voluntary initiatives should discourage clearing of land by soybean producers.

Biofuel policies in the United States, the European Union, and Indonesia remain a major source of uncertainty in the vegetable oil sector given that about 16% of global vegetable oil supplies go to biodiesel production. In Indonesia, attaining the recently proposed 30% biodiesel mandate is questionable as – in addition to requiring government subsidies – they may impose medium-term supply constraints. In the United States Renewable Diesel or HVO receive considerable support in some states that show strong production growth rates. In the European Union, policy reforms and the emergence of second-generation biofuel technologies will likely prompt a shift away from crop-based feedstocks. Globally, Sustainable Aviation Fuels (SAF) are expected to be a substantial use of biofuels but the timing of introduction remains largely uncertain. The development of crude oil prices, which affects the competitiveness and profitability of biodiesel production, remains a major source of uncertainty.

China's import demand for soybean remains uncertain and many factors influence it. Overall, the development of the meat demand is shaped by declining population, slower but still substantial economic growth which will be the main determinant of feed and especially protein meal demand. The pig meat industry recovery from ASF combined with its restructuring will have a large influence on feed demand, especially for protein meal for feeding. Protein meals compete in part with other feed components in the production of compound feed and are thus reacting to any change in cereal prices. Any adjustment of feed mixtures will influence protein meal use.

Russia's war against Ukraine poses large uncertainty around the sunflower complex as both countries are the largest producers of sunflower seed (each accounting for more than a quarter of global production) and exporters of sunflower products. Especially, Ukraine is also an important regional exporter of rapeseed and soybeans. Thus, any production shortfall reduces available oilseeds and products on the global market while also leading to a shortfall of vegetable oil and protein meal for feed in Ukraine.

ANNEX C

Table C.2. World oilseed projections

Marketing year

		Average 2020-22est	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SOYBEAN												
World												
Production	Mt	363.3	384.0	388.0	392.2	395.1	399.2	402.7	405.8	408.8	411.7	414.8
Area	Mha	131.8	134.8	135.4	135.7	135.9	136.5	136.7	136.9	137.0	137.1	137.3
Yield	t/ha	2.76	2.85	2.87	2.89	2.91	2.93	2.95	2.97	2.98	3.00	3.02
Consumption	Mt	365.1	382.2	386.4	391.1	394.7	398.5	401.9	405.0	408.1	411.4	414.4
Crush	Mt	327.7	344.1	347.6	351.5	354.8	358.3	361.4	364.3	367.1	370.2	372.9
Closing stocks	Mt	41.6	43.6	45.2	46.4	46.8	47.5	48.4	49.1	49.9	50.2	50.7
Price ¹	USD/t	592.5	539.3	501.1	495.7	508.8	518.2	524.1	532.7	540.3	548.7	556.3
Developed countries												
Production	Mt	137.9	141.0	142.6	144.0	145.0	146.4	147.6	148.7	149.8	150.7	151.7
Consumption	Mt	99.1	104.0	104.9	106.3	107.1	107.9	108.7	109.5	110.2	110.9	111.4
Crush	Mt	90.4	94.7	95.6	96.8	97.7	98.4	99.2	100.0	100.7	101.2	101.7
Closing stocks	Mt	9.7	12.1	12.7	12.9	13.0	13.1	13.3	13.4	13.6	13.7	13.8
Developing countries												
Production	Mt	225.4	243.0	245.4	248.2	250.1	252.8	255.1	257.1	259.0	261.0	263.1
Consumption	Mt	266.0	278.2	281.5	284.8	287.5	290.6	293.1	295.5	297.8	300.5	303.0
Crush	Mt	237.3	249.4	252.0	254.7	257.1	259.9	262.2	264.4	266.5	268.9	271.2
Closing stocks	Mt	31.9	31.5	32.5	33.4	33.8	34.4	35.1	35.7	36.3	36.6	36.9
OECD²												
Production	Mt	127.4	129.6	131.0	132.3	133.2	134.4	135.5	136.5	137.4	138.3	139.1
Consumption	Mt	99.9	103.5	104.2	105.5	106.4	107.2	108.0	108.9	109.5	110.2	110.7
Crush	Mt	92.0	95.2	95.9	97.1	98.0	98.7	99.5	100.3	101.0	101.6	102.1
Closing stocks	Mt	8.8	10.4	11.0	11.3	11.4	11.5	11.7	11.8	12.0	12.1	12.2
OTHER OILSEEDS												
World												
Production	Mt	170.8	175.0	176.4	178.5	179.6	181.2	183.0	184.5	186.0	187.5	189.1
Area	Mha	94.1	94.1	94.2	94.8	94.9	95.0	95.2	95.3	95.5	95.6	95.8
Yield	t/ha	1.82	1.86	1.87	1.88	1.89	1.91	1.92	1.93	1.95	1.96	1.97
Consumption	Mt	170.1	174.5	175.8	178.3	179.5	181.1	182.9	184.4	185.9	187.5	189.1
Crush	Mt	143.1	147.6	148.9	151.2	152.5	154.1	155.8	157.3	158.8	160.2	161.8
Closing stocks	Mt	9.0	9.6	10.2	10.5	10.6	10.7	10.8	10.9	10.9	10.9	11.0
Price ³	USD/t	672.0	568.3	550.5	556.9	579.0	593.7	601.3	614.9	627.2	641.0	652.8
Developed countries												
Production	Mt	96.9	98.3	99.1	100.3	100.7	101.5	102.5	103.3	104.1	104.8	105.7
Consumption	Mt	89.2	89.1	89.4	90.9	91.3	92.1	92.9	93.5	94.2	94.8	95.5
Crush	Mt	82.0	82.1	82.5	83.8	84.3	85.0	85.8	86.4	87.0	87.7	88.3
Closing stocks	Mt	6.6	6.8	7.4	7.7	7.8	7.9	8.0	8.1	8.1	8.1	8.1
Developing countries												
Production	Mt	74.0	76.7	77.3	78.3	78.9	79.8	80.5	81.2	81.9	82.6	83.3
Consumption	Mt	81.0	85.4	86.4	87.4	88.2	89.0	90.0	90.9	91.8	92.7	93.6
Crush	Mt	61.1	65.5	66.4	67.4	68.2	69.1	70.0	70.9	71.7	72.6	73.5
Closing stocks	Mt	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
OECD²												
Production	Mt	59.7	61.9	62.4	63.0	63.1	63.3	63.9	64.3	64.7	65.1	65.5
Consumption	Mt	60.4	60.0	60.2	61.3	61.6	62.0	62.4	62.7	63.0	63.3	63.6
Crush	Mt	54.8	54.6	54.8	55.9	56.1	56.5	57.0	57.2	57.5	57.8	58.1
Closing stocks	Mt	3.9	4.0	4.7	4.9	5.0	5.1	5.2	5.2	5.3	5.3	5.3
PROTEIN MEALS												
World												
Production	Mt	358.9	372.8	376.5	381.3	384.8	388.6	392.2	395.5	398.7	402.1	405.2
Consumption	Mt	360.5	371.6	376.3	381.2	384.8	388.6	392.2	395.4	398.7	402.0	405.2
Closing stocks	Mt	14.5	16.2	16.4	16.6	16.6	16.6	16.6	16.7	16.8	16.9	17.0
Price ⁴	USD/t	466.8	447.7	408.9	404.7	411.0	416.4	420.8	425.7	430.0	434.6	439.4
Developed countries												
Production	Mt	114.6	117.4	118.3	120.1	121.0	122.0	123.0	124.0	124.9	125.7	126.5
Consumption	Mt	124.0	126.8	127.6	128.5	128.7	128.8	129.1	129.2	129.4	129.5	129.6
Closing stocks	Mt	2.9	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Developing countries												
Production	Mt	244.2	255.4	258.2	261.2	263.7	266.6	269.2	271.5	273.8	276.4	278.8
Consumption	Mt	236.5	244.8	248.7	252.6	256.1	259.8	263.1	266.2	269.3	272.6	275.6
Closing stocks	Mt	11.6	13.1	13.3	13.4	13.4	13.4	13.5	13.5	13.6	13.7	13.8
OECD²												
Production	Mt	105.8	108.0	108.8	110.4	111.4	112.2	113.2	114.1	114.9	115.5	116.1
Consumption	Mt	130.9	133.4	134.3	135.2	135.6	135.8	136.2	136.4	136.7	136.8	137.0
Closing stocks	Mt	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1

ANNEX C

Table C.2. World oilseed projections (cont.)

Marketing year

		Average 2020-22est	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
VEGETABLE OILS												
World												
Production	Mt	217.3	224.9	226.9	229.7	231.6	233.9	236.0	238.0	239.9	241.9	243.9
of which palm oil	Mt	78.4	81.7	82.4	83.3	83.9	84.7	85.4	86.0	86.7	87.3	88.0
Consumption	Mt	216.9	224.6	227.0	229.5	231.5	233.6	235.8	237.8	239.8	241.8	243.7
Food	Mt	125.0	126.6	127.3	129.0	130.2	131.6	132.8	134.1	135.4	136.7	137.8
Biofuel	Mt	34.1	36.8	37.8	38.2	38.6	38.8	39.2	39.5	39.8	40.1	40.5
Exports	Mt	82.7	84.4	84.8	85.3	85.8	86.3	86.8	87.3	87.8	88.3	88.7
Closing stocks	Mt	19.2	20.6	20.5	20.6	20.7	20.9	21.2	21.4	21.5	21.7	21.8
Price ⁵	USD/t	1 314.7	1 091.2	1 087.8	1 109.8	1 146.2	1 173.2	1 194.2	1 220.2	1 246.6	1 275.8	1 304.4
Developed countries												
Production	Mt	53.5	53.9	54.2	55.0	55.4	55.9	56.4	56.8	57.3	57.7	58.1
Consumption	Mt	56.5	57.2	57.1	57.2	57.2	57.2	57.2	57.3	57.3	57.4	57.5
Closing stocks	Mt	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Developing countries												
Production	Mt	163.8	171.0	172.7	174.6	176.2	178.0	179.6	181.2	182.7	184.3	185.8
Consumption	Mt	160.4	167.4	169.9	172.4	174.4	176.4	178.6	180.5	182.5	184.4	186.2
Closing stocks	Mt	14.7	16.2	16.2	16.3	16.4	16.6	16.9	17.0	17.2	17.4	17.5
OECD²												
Production	Mt	44.9	45.5	45.9	46.7	47.1	47.5	48.0	48.4	48.7	49.1	49.4
Consumption	Mt	59.6	60.2	60.2	60.4	60.4	60.4	60.5	60.5	60.5	60.6	60.7
Closing stocks	Mt	4.4	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2

Note: Average 2020-22est: Data for 2022 are estimated. Prices are in nominal terms.

1. Soybean, U.S., CIF Rotterdam (October/September).
2. Excludes Iceland and Costa Rica but includes all EU member countries.
3. Rapeseed, Europe, CIF Hamburg (October/September).
4. Weighted average protein meal, European port (October/September).
5. Weighted average price of oilseed oils and palm oil, European port (October/September).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.18.1. Soybean projections: Production and trade

Marketing year

	PRODUCTION (kt)		Growth (%) ⁴		IMPORTS (kt)		Growth (%) ⁴		EXPORTS (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	363 337	414 821	2.17	0.86	160 631	170 674	4.38	0.55	157 936	170 674	3.13	0.55
NORTH AMERICA	123 941	134 496	1.71	0.74	928	889	-7.23	1.19	61 118	57 845	1.55	0.38
Canada	6 395	9 258	1.06	2.91	466	477	3.28	2.17	4 452	5 760	1.92	2.15
United States	117 546	125 237	1.75	0.60	463	412	-12.59	0.14	56 666	52 085	1.52	0.21
LATIN AMERICA	190 288	223 254	1.90	0.85	10 999	10 952	8.59	0.55	93 564	109 107	4.26	0.63
Argentina	42 067	50 713	-4.24	0.85	3 001	3 022	461.42	0.09	8 945	8 017	-4.77	-0.69
Brazil	134 524	153 496	5.18	0.76	410	412	-0.86	0.04	77 303	90 955	6.77	0.66
Chile	0	0	..	..	177	182	-4.13	0.65	2	2	0.00	-0.64
Colombia	75	84	0.97	0.92	537	633	-1.83	0.90	0	0	-49.13	..
Mexico	274	515	-2.79	4.95	5 619	5 511	5.86	0.98	7	6	58.06	0.00
Paraguay	7 933	11 958	-2.42	1.80	33	0	-37.24	1.12	4 867	7 270	-1.29	1.90
Peru	5	5	0.00	1.28	367	375	-0.15	0.82	0	0	..	..
EUROPE	11 659	14 645	5.99	1.55	17 805	16 092	1.50	-1.17	2 730	3 326	3.13	0.88
European Union ¹	2 592	3 441	6.24	2.24	14 579	12 720	1.57	-1.42	236	284	9.17	1.69
United Kingdom	0	0	..	..	760	784	0.54	0.30	0	0	..	..
Russia	5 020	6 632	12.09	1.81	1 815	1 874	0.91	-0.58	1 026	1 033	31.96	0.00
Ukraine	3 226	3 669	-0.33	0.70	7	6	18.06	0.21	1 458	1 999	-3.19	1.26
AFRICA	3 397	3 789	5.33	0.76	5 624	6 727	12.05	1.10	179	158	5.52	-0.81
Egypt	33	33	-0.52	0.58	4 383	5 164	15.14	0.82	0	0	-62.95	..
Ethiopia	120	130	7.92	0.76	0	0	-50.36	..	78	78	11.18	0.04
Nigeria	700	802	1.88	1.49	70	113	77.05	3.51	10	9	13.38	-0.82
South Africa	1 765	1 931	10.32	0.21	46	36	-14.15	-1.20	28	17	10.78	-2.32
ASIA	34 004	38 557	3.99	1.03	125 270	136 006	4.41	0.74	342	235	-10.81	-0.40
China ²	18 762	21 103	5.88	1.01	95 977	101 847	4.01	0.66	167	100	-9.20	0.00
India	12 832	14 659	2.44	1.11	640	1 014	86.14	2.02	55	42	-16.99	-0.32
Indonesia	707	872	-2.55	0.27	2 600	2 989	3.03	1.36	5	5	-4.70	-0.18
Iran	220	201	2.76	-0.22	2 150	2 542	13.48	1.38	27	36	1.39	-1.36
Japan	240	260	0.97	0.23	3 238	3 092	1.39	-0.57	0	0	..	..
Kazakhstan	267	303	3.41	1.17	45	39	14.41	-1.61	0	0	47.98	..
Korea	110	112	-1.88	0.21	1 297	1 332	0.26	0.03	0	0	..	..
Malaysia	0	0	..	..	933	1 214	6.03	1.25	10	8	-15.13	-1.23
Pakistan	2	2	-11.93	0.17	2 383	2 800	21.47	1.60	0	0	..	..
Philippines	1	1	0.00	-0.58	217	276	13.55	1.59	0	0	..	..
Saudi Arabia	0	0	..	..	770	956	6.72	1.30	0	0	..	..
Thailand	43	45	-3.17	0.59	3 833	4 820	8.05	1.13	3	3	-19.92	-1.07
Türkiye	141	150	-2.22	0.53	2 917	3 472	5.83	0.87	5	5	-25.03	-0.58
Viet Nam	61	59	-12.88	0.33	1 977	2 426	4.47	1.58	35	2	36.40	-1.56
OCEANIA	48	80	2.92	1.31	5	6	16.17	0.26	3	4	-8.94	0.48
Australia	48	80	2.92	1.31	4	5	25.56	0.31	3	4	-8.95	0.48
New Zealand	0	0	..	..	1	1	-0.01	0.00	0	0	..	..
DEVELOPED COUNTRIES	137 935	151 731	2.12	0.81	22 768	21 003	0.96	-0.90	63 879	61 192	1.62	0.41
DEVELOPING COUNTRIES	225 402	263 090	2.19	0.88	137 863	149 670	5.06	0.77	94 058	109 482	4.16	0.63
LEAST DEVELOPED COUNTRIES (LDC)	899	1 012	1.75	1.18	1 679	2 349	14.57	2.32	18	16	-3.79	-0.92
OECD³	127 426	139 143	1.77	0.79	31 120	29 859	1.95	-0.32	61 371	58 146	1.56	0.39
BRICS	172 902	197 822	5.22	0.84	98 889	105 184	3.98	0.64	78 578	92 146	6.81	0.66

.. Not available

Note: Marketing year: See Glossary of Terms for definitions. Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.18.2. Soybean projections: Consumption, domestic crush

Marketing year

	CONSUMPTION (kt)		Growth (%) ⁴		DOMESTIC CRUSH (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	365 134	414 372	2.83	0.89	327 744	372 933	2.90	0.89
NORTH AMERICA	66 246	77 412	2.42	1.15	61 664	72 206	2.72	1.21
Canada	2 500	3 966	0.91	4.12	1 798	3 248	0.81	4.66
United States	63 747	73 447	2.49	1.01	59 866	68 958	2.78	1.07
LATIN AMERICA	107 243	125 034	0.88	1.02	98 505	114 720	0.80	0.98
Argentina	36 456	45 717	-2.29	1.21	35 430	44 631	-2.39	1.23
Brazil	56 797	62 898	3.26	0.81	49 892	54 525	3.45	0.69
Chile	185	180	-3.87	0.66	184	180	-3.90	0.66
Colombia	612	717	-1.13	0.90	604	709	-1.13	0.91
Mexico	5 900	6 019	6.04	1.38	5 564	5 717	6.29	1.42
Paraguay	3 100	4 680	-3.19	1.65	2 995	4 540	-3.10	1.67
Peru	372	380	0.50	0.82	371	378	0.49	0.83
EUROPE	26 561	27 401	3.12	-0.09	23 526	24 209	2.95	-0.13
European Union ¹	17 035	15 877	2.37	-0.87	15 009	13 854	2.20	-1.00
United Kingdom	760	784	0.54	0.30	709	691	0.92	-0.02
Russia	5 840	7 474	6.34	1.41	5 429	6 947	6.11	1.43
Ukraine	1 460	1 665	0.59	0.72	1 315	1 509	0.59	0.82
AFRICA	8 790	10 354	9.03	1.02	8 130	9 527	10.54	0.92
Egypt	4 433	5 194	14.67	0.84	4 423	5 194	14.71	0.84
Ethiopia	43	52	3.66	2.03	21	25	3.40	1.61
Nigeria	760	906	2.98	1.75	656	786	11.03	1.57
South Africa	1 704	1 951	9.03	0.21	1 538	1 740	8.91	0.10
ASIA	156 243	174 088	4.23	0.84	135 875	152 197	4.38	0.85
China ²	111 705	122 638	4.15	0.74	95 076	104 669	4.07	0.75
India	13 513	15 629	3.06	1.17	11 857	13 890	4.16	1.21
Indonesia	3 228	3 854	1.50	1.16	2 600	3 155	3.03	1.21
Iran	2 323	2 704	11.90	1.33	2 306	2 694	12.04	1.34
Japan	3 534	3 351	1.59	-0.52	2 771	2 452	2.14	-1.14
Kazakhstan	302	342	3.47	0.81	173	192	4.17	0.80
Korea	1 410	1 445	0.02	0.04	1 369	1 404	0.08	0.04
Malaysia	950	1 205	7.05	1.27	948	1 205	7.03	1.27
Pakistan	2 392	2 797	21.50	1.65	2 387	2 797	21.49	1.65
Philippines	218	276	13.34	1.75	214	276	13.51	1.75
Saudi Arabia	773	956	6.75	1.30	768	951	6.67	1.30
Thailand	3 857	4 860	7.94	1.22	3 817	4 860	7.94	1.22
Türkiye	3 089	3 612	6.40	1.01	3 003	3 575	6.21	1.02
Viet Nam	1 995	2 478	3.82	1.64	1 976	2 446	4.22	1.66
OCEANIA	50	82	5.66	1.26	45	74	5.97	1.29
Australia	49	81	5.82	1.28	45	74	5.97	1.29
New Zealand	1	1	-0.01	0.00	0	0	0.00	0.00
DEVELOPED COUNTRIES	99 123	111 403	2.68	0.77	90 432	101 730	2.86	0.80
DEVELOPING COUNTRIES	266 011	302 969	2.89	0.94	237 312	271 203	2.92	0.93
LEAST DEVELOPED COUNTRIES (LDC)	2 572	3 343	8.30	2.00	2 125	2 818	10.28	1.95
OECD³	99 899	110 723	2.58	0.77	91 987	102 099	2.79	0.80
BRICS	189 559	210 590	3.86	0.81	163 791	181 771	3.95	0.78

Note: Marketing year: See Glossary of Terms for definitions. Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.19.1. Other oilseed projections: Production and trade

Marketing year

	PRODUCTION (kt)		Growth (%) ⁴		IMPORTS (kt)		Growth (%) ⁴		EXPORTS (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	170 836	189 088	2.56	0.86	22 536	24 799	2.11	0.39	23 982	24 799	2.64	0.39
NORTH AMERICA	21 874	25 423	-0.08	1.07	989	952	-1.39	0.07	8 836	10 716	-2.59	1.91
Canada	17 237	20 342	-0.64	1.18	244	260	1.16	0.55	8 200	10 048	-2.78	1.94
United States	4 637	5 080	2.33	0.65	745	692	-2.07	-0.10	637	668	-0.12	1.53
LATIN AMERICA	6 626	7 072	3.57	0.74	1 829	2 360	1.42	0.83	1 102	1 255	6.54	1.47
Argentina	4 623	4 644	3.45	0.37	1	1	0.00	0.00	594	596	2.47	0.77
Brazil	585	778	4.11	2.65	4	2	-9.50	0.00	172	210	15.47	2.95
Chile	200	201	1.15	0.41	34	39	13.81	-0.49	9	8	5.53	0.42
Colombia	2	2	0.01	0.09	7	7	0.02	0.02	0	0	..	..
Mexico	112	115	-0.79	0.56	1 756	2 286	1.33	0.89	2	3	-1.36	0.00
Paraguay	218	233	-1.35	0.72	0	0	..	..	27	30	-1.63	2.09
Peru	6	7	0.00	0.71	1	1	0.00	0.75	0	0	..	..
EUROPE	66 177	72 077	2.10	1.06	8 362	7 636	8.16	-0.90	6 677	6 316	7.21	1.34
European Union ¹	27 561	29 943	-0.58	0.99	6 922	6 306	7.07	-0.97	790	824	-4.49	0.31
United Kingdom	1 239	1 670	-7.61	0.19	801	743	18.11	-0.26	58	23	-26.67	-2.52
Russia	18 288	21 681	7.42	1.41	247	220	5.35	-0.88	1 744	1 447	35.46	-0.90
Ukraine	16 736	16 159	3.00	0.89	29	26	1.32	-0.50	3 363	3 176	9.01	2.96
AFRICA	9 542	10 994	0.95	1.41	403	578	-2.30	1.98	568	415	16.14	-0.48
Egypt	118	111	0.24	0.51	87	197	4.18	2.59	22	17	4.67	-2.52
Ethiopia	120	144	1.70	1.45	0	0	..	55.00	27	34	111.37	0.77
Nigeria	2 163	2 592	-0.12	2.05	0	0	..	..	14	11	-9.29	-1.70
South Africa	1 047	1 154	3.58	0.04	14	10	-23.14	0.41	6	11	-1.41	-0.34
ASIA	60 180	68 188	3.91	0.87	10 925	13 247	-0.63	1.09	2 052	2 015	3.37	0.39
China ²	35 888	39 915	3.66	0.77	3 694	5 389	-3.46	2.47	680	670	3.00	0.00
India	16 385	18 913	5.18	0.94	220	238	-4.47	-0.78	756	574	7.88	0.08
Indonesia	465	519	-6.43	1.21	262	288	4.08	0.26	1	1	0.30	-0.02
Iran	399	410	6.46	0.30	142	154	6.18	-0.13	1	1	0.02	0.01
Japan	23	25	0.93	0.67	2 399	2 514	-0.59	-0.03	0	0	..	..
Kazakhstan	1 152	1 547	6.21	1.28	13	7	-0.12	0.01	423	596	9.14	1.38
Korea	14	14	-2.77	-0.06	30	31	2.86	-0.08	0	0	..	..
Malaysia	5	5	0.00	0.21	44	47	0.80	0.53	3	3	0.01	-0.53
Pakistan	983	1 128	3.18	1.33	1 030	1 469	-1.51	1.18	0	0	-60.24	..
Philippines	20	22	0.00	1.56	95	105	6.82	0.72	0	0	..	..
Saudi Arabia	3	3	0.00	0.98	4	4	0.01	0.52	0	0	..	..
Thailand	90	95	-0.03	0.64	58	60	1.39	0.25	4	3	-0.31	-0.18
Türkiye	2 046	2 653	3.40	1.36	846	701	0.18	-0.95	12	12	-8.56	0.12
Viet Nam	311	343	0.77	1.34	189	202	2.62	0.35	35	33	4.06	-0.35
OCEANIA	6 437	5 334	6.80	-3.14	27	26	3.47	-0.03	4 747	4 083	6.80	-4.04
Australia	6 424	5 321	6.81	-3.15	23	22	4.55	0.00	4 746	4 083	6.80	-4.04
New Zealand	10	10	0.00	-0.14	4	4	0.01	0.06	0	0	..	..
DEVELOPED COUNTRIES	96 872	105 743	1.93	0.80	12 132	11 512	4.76	-0.59	20 719	21 749	2.29	0.37
DEVELOPING COUNTRIES	73 964	83 345	3.43	0.93	10 404	13 287	-0.52	1.32	3 264	3 050	5.20	0.51
LEAST DEVELOPED COUNTRIES (LDC)	6 855	7 799	1.68	1.39	306	305	3.85	0.73	478	333	22.25	-0.20
OECD³	59 668	65 536	0.18	0.61	13 953	13 752	3.75	-0.38	14 471	15 685	-0.36	-0.04
BRICS	72 193	82 440	4.87	0.98	4 179	5 859	-3.29	2.16	3 359	2 911	14.43	-0.27

.. Not available

Note: Marketing year: See Glossary of Terms for definitions. Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.19.2. Other oilseed projections: Consumption, domestic crush

Marketing year

	CONSUMPTION (kt)		Growth (%) ⁴		DOMESTIC CRUSH (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	170 110	189 061	2.66	0.89	143 117	161 787	2.51	1.03
NORTH AMERICA	14 903	15 658	2.89	0.67	12 666	13 277	3.00	0.79
Canada	10 161	10 554	3.57	0.78	9 810	10 244	3.74	0.87
United States	4 742	5 104	1.53	0.44	2 856	3 034	0.73	0.52
LATIN AMERICA	7 443	8 177	3.08	0.66	6 960	7 610	3.62	0.60
Argentina	4 125	4 049	4.52	0.31	3 978	3 863	5.40	0.26
Brazil	408	570	1.11	2.53	335	461	0.87	2.34
Chile	225	232	2.39	0.25	206	212	2.51	0.25
Colombia	9	10	0.02	0.03	8	8	0.02	-0.05
Mexico	1 869	2 399	1.24	0.87	1 758	2 298	1.49	0.89
Paraguay	191	203	-2.32	0.54	158	166	-2.49	0.45
Peru	7	7	0.00	0.71	3	3	0.00	0.53
EUROPE	68 010	73 387	2.39	0.85	63 881	69 128	2.59	0.88
European Union ¹	34 070	35 425	0.96	0.70	31 585	32 865	0.93	0.75
United Kingdom	1 982	2 390	-0.53	0.07	1 982	2 390	-0.53	0.07
Russia	16 571	20 442	6.19	1.57	15 808	19 507	6.55	1.56
Ukraine	13 369	13 012	2.11	0.43	12 728	12 486	2.77	0.45
AFRICA	9 337	11 156	0.28	1.52	5 620	6 215	0.39	0.72
Egypt	182	291	1.58	2.13	131	234	2.83	2.27
Ethiopia	93	111	-2.00	1.66	60	69	-1.95	1.24
Nigeria	2 149	2 582	-0.03	2.07	752	643	-0.04	-0.36
South Africa	1 021	1 153	2.01	0.07	915	1 022	1.87	-0.04
ASIA	68 777	79 406	3.10	0.93	52 795	64 396	2.38	1.34
China ²	38 675	44 632	2.81	0.97	26 331	33 771	1.14	1.78
India	15 822	18 573	4.88	0.97	14 064	16 533	5.08	0.99
Indonesia	727	806	-3.59	0.86	295	334	2.34	0.84
Iran	540	563	6.26	0.19	499	517	6.25	0.14
Japan	2 402	2 539	-0.58	-0.03	2 384	2 521	-0.58	-0.03
Kazakhstan	716	955	4.72	1.29	563	771	4.74	1.42
Korea	44	44	0.67	-0.07	40	40	0.85	-0.08
Malaysia	46	49	0.76	0.56	45	47	0.79	0.55
Pakistan	1 985	2 594	0.62	1.25	1 833	2 422	0.50	1.23
Philippines	115	127	5.50	0.87	102	113	6.38	0.83
Saudi Arabia	7	7	0.00	0.72	5	5	0.00	0.58
Thailand	144	152	0.49	0.51	88	95	0.86	0.82
Türkiye	2 926	3 341	2.73	0.87	2 701	3 088	2.74	0.89
Viet Nam	465	512	1.53	1.05	355	396	1.73	1.19
OCEANIA	1 640	1 277	6.61	0.37	1 194	1 161	3.67	0.40
Australia	1 623	1 260	6.70	0.37	1 182	1 149	3.71	0.40
New Zealand	14	14	-0.01	-0.08	11	11	-0.01	0.00
DEVELOPED COUNTRIES	89 153	95 492	2.48	0.79	82 001	88 325	2.58	0.83
DEVELOPING COUNTRIES	80 958	93 568	2.85	1.01	61 116	73 462	2.41	1.28
LEAST DEVELOPED COUNTRIES (LDC)	6 675	7 769	1.10	1.44	4 607	5 120	1.08	1.03
OECD³	60 355	63 601	1.52	0.64	54 787	58 123	1.41	0.70
BRICS	72 497	85 370	3.94	1.11	57 453	71 294	3.39	1.51

Note: Marketing year: See Glossary of Terms for definitions. Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.20.1. Protein meal projections: Production and trade

Marketing year

	PRODUCTION (kt)		Growth (%) ⁴		IMPORTS (kt)		Growth (%) ⁴		EXPORTS (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	358 869	405 248	2.49	0.93	92 250	103 222	1.63	0.89	90 293	103 222	0.17	0.89
NORTH AMERICA	57 703	66 769	2.45	1.22	5 113	4 777	1.10	-0.88	18 333	23 041	2.89	1.91
Canada	6 979	8 358	3.10	1.89	1 320	1 006	5.78	-3.79	5 267	5 847	4.26	1.05
United States	50 723	58 412	2.37	1.13	3 793	3 771	-0.24	0.06	13 065	17 194	2.40	2.22
LATIN AMERICA	82 830	96 754	0.85	1.03	10 383	12 199	2.14	1.39	47 426	56 034	-1.29	0.94
Argentina	29 562	36 737	-2.19	1.18	0	0	..	..	25 657	31 878	-2.82	1.37
Brazil	40 707	45 201	3.38	0.85	5	5	6.84	0.00	17 886	19 545	1.43	0.40
Chile	262	262	-1.59	0.47	1 143	1 326	-0.05	1.36	1	1	0.00	-0.13
Colombia	681	832	-0.11	1.34	1 814	2 328	6.25	2.08	160	131	7.07	-2.04
Mexico	5 635	6 012	5.00	1.16	1 828	2 034	-0.57	0.72	22	22	0.63	0.00
Paraguay	2 413	3 607	-3.29	1.64	2	2	-0.18	0.42	1 749	2 550	-5.14	1.24
Peru	315	320	0.10	0.84	1 503	2 100	5.47	3.42	5	5	0.00	-0.84
EUROPE	48 812	51 476	2.37	0.49	26 480	24 986	-0.93	-1.11	10 299	11 596	3.06	1.28
European Union ¹	29 045	28 845	1.19	0.05	21 449	20 099	-0.93	-1.32	2 192	2 285	1.49	1.74
United Kingdom	1 691	1 882	0.93	0.87	2 857	2 651	-0.64	-0.74	521	640	17.19	1.79
Russia	9 568	12 022	6.30	1.51	367	307	-5.82	0.25	2 759	3 938	4.32	2.27
Ukraine	6 720	6 771	2.47	0.52	27	25	-6.71	-0.17	4 417	4 311	1.91	0.31
AFRICA	10 997	12 443	6.04	0.95	4 179	5 980	-3.88	3.67	709	510	2.46	-3.08
Egypt	3 612	4 275	13.87	0.88	307	731	-18.76	11.55	5	5	10.79	-0.96
Ethiopia	107	129	1.56	2.63	20	26	22.34	-0.40	0	0	..	..
Nigeria	1 052	1 155	4.98	1.01	700	815	16.26	1.23	189	162	1.10	-1.22
South Africa	1 659	1 868	6.74	0.07	619	941	-4.87	5.16	52	48	6.91	-3.07
ASIA	157 390	176 651	3.27	0.90	42 874	51 392	4.18	1.74	13 452	11 964	0.31	-1.12
China ²	92 127	102 158	3.27	0.76	5 132	6 444	27.64	1.77	852	798	-10.68	-0.44
India	22 886	26 504	2.91	1.43	628	754	14.81	3.66	2 537	1 614	1.55	-3.53
Indonesia	8 227	9 281	3.90	0.82	5 585	6 164	4.28	0.71	5 566	5 321	4.14	-0.71
Iran	2 174	2 495	10.42	1.18	2 155	2 266	0.63	0.91	7	5	-29.44	-0.09
Japan	3 573	3 396	1.02	-0.68	2 011	1 933	0.41	0.00	4	0	-27.29	0.00
Kazakhstan	461	568	4.50	1.24	78	81	48.25	0.02	202	194	11.62	-0.02
Korea	1 183	1 211	-0.04	0.04	3 325	3 435	-0.90	0.24	23	30	-22.06	0.00
Malaysia	3 297	3 766	0.71	0.87	1 426	1 505	0.79	0.36	2 541	2 479	-0.11	-0.36
Pakistan	3 828	4 483	2.15	1.51	467	1 241	-7.77	11.68	66	50	-12.38	-3.30
Philippines	1 195	1 341	3.94	0.66	3 242	4 009	4.02	1.49	396	365	0.40	-1.47
Saudi Arabia	609	754	6.64	1.30	1 630	2 009	8.29	2.19	14	24	33.66	-0.80
Thailand	3 558	4 467	8.12	1.22	3 368	4 018	0.81	1.82	12	12	8.12	-0.17
Türkiye	4 540	5 321	4.44	1.08	2 240	2 909	3.27	2.87	203	144	7.50	-2.48
Viet Nam	1 797	2 192	4.00	1.60	6 076	7 754	4.28	2.42	70	51	-2.69	-1.84
OCEANIA	1 137	1 154	1.19	0.41	3 221	3 888	2.71	1.47	75	77	-4.90	-0.61
Australia	1 005	1 007	1.18	0.34	956	1 294	4.94	2.92	21	25	-12.24	0.00
New Zealand	8	8	-0.01	0.00	2 255	2 584	1.84	0.81	0	0	..	..
DEVELOPED COUNTRIES	114 619	126 461	2.39	0.83	38 520	38 057	-0.24	-0.53	28 924	34 908	2.96	1.68
DEVELOPING COUNTRIES	244 250	278 787	2.54	0.97	53 730	65 165	3.17	1.83	61 369	68 314	-0.97	0.51
LEAST DEVELOPED COUNTRIES (LDC)	5 097	5 879	3.75	1.45	1 503	2 415	11.62	4.56	361	216	2.73	-4.46
OECD³	105 827	116 118	2.14	0.82	46 706	47 332	0.15	-0.24	21 586	26 423	2.86	1.83
BRICS	166 947	187 753	3.42	0.91	6 751	8 451	14.45	2.19	24 085	25 943	0.77	0.32

.. Not available

Note: Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.20.2. Protein meal projections: Consumption

Marketing year

	CONSUMPTION (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32
WORLD	360 530	405 164	2.90	0.95
NORTH AMERICA	44 470	48 503	2.13	0.69
Canada	3 008	3 515	2.16	1.21
United States	41 462	44 988	2.13	0.65
LATIN AMERICA	46 118	52 899	3.82	1.34
Argentina	4 206	4 859	1.88	1.21
Brazil	22 826	25 661	5.33	1.21
Chile	1 401	1 587	-0.58	1.25
Colombia	2 329	3 026	4.15	2.14
Mexico	7 439	8 024	3.36	1.05
Paraguay	712	1 050	3.10	2.95
Peru	1 806	2 412	4.40	3.10
EUROPE	64 832	64 859	0.81	-0.28
European Union ¹	48 301	46 660	0.19	-0.64
United Kingdom	4 027	3 892	-1.32	-0.38
Russia	7 002	8 391	6.15	1.13
Ukraine	2 341	2 479	3.41	0.89
AFRICA	14 502	17 907	2.44	1.94
Egypt	3 922	4 999	4.95	1.95
Ethiopia	127	156	3.33	2.04
Nigeria	1 562	1 807	9.53	1.35
South Africa	2 216	2 759	1.89	1.62
ASIA	186 337	216 030	3.73	1.22
China ²	96 072	107 802	4.19	0.83
India	20 834	25 633	3.55	1.91
Indonesia	8 211	10 120	3.71	1.65
Iran	4 318	4 755	4.36	1.05
Japan	5 583	5 329	0.84	-0.44
Kazakhstan	333	454	4.24	1.64
Korea	4 488	4 616	-0.31	0.19
Malaysia	2 197	2 790	1.77	1.79
Pakistan	4 234	5 670	1.12	3.14
Philippines	4 015	4 983	4.43	1.51
Saudi Arabia	2 254	2 739	8.04	1.97
Thailand	6 911	8 471	3.70	1.52
Türkiye	6 602	8 074	3.99	1.78
Viet Nam	7 816	9 892	4.26	2.27
OCEANIA	4 272	4 966	2.43	1.31
Australia	1 928	2 276	3.38	1.88
New Zealand	2 263	2 592	1.72	0.81
DEVELOPED COUNTRIES	124 021	129 599	1.38	0.21
DEVELOPING COUNTRIES	236 509	275 565	3.78	1.31
LEAST DEVELOPED COUNTRIES (LDC)	6 226	8 074	5.28	2.53
OECD³	130 942	137 009	1.29	0.27
BRICS	148 950	170 246	4.30	1.07

Note: Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.21.1. Vegetable oil projections: Production and trade

Marketing year

	PRODUCTION (kt)		Growth (%) ⁴		IMPORTS (kt)		Growth (%) ⁴		EXPORTS (kt)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	217 271	243 867	2.80	0.91	83 184	88 728	1.66	0.57	82 676	88 728	1.45	0.57
NORTH AMERICA	18 407	20 842	2.74	1.15	5 360	5 665	3.20	0.53	4 368	5 116	1.59	2.59
Canada	4 571	4 995	3.17	1.25	377	297	4.01	-2.86	3 326	3 513	3.32	0.89
United States	13 836	15 847	2.60	1.12	4 982	5 367	3.15	0.75	1 042	1 603	-3.62	7.55
LATIN AMERICA	27 837	32 955	1.91	1.21	4 806	4 940	0.83	0.23	10 537	12 483	0.13	1.11
Argentina	8 177	9 775	-1.14	1.06	17	17	0.00	-0.02	5 600	6 646	-0.72	1.18
Brazil	10 835	12 366	3.81	1.09	675	713	4.07	0.74	1 304	1 487	-2.94	1.41
Chile	112	114	0.27	0.37	475	511	2.54	0.46	1	1	0.00	-0.07
Colombia	2 074	2 911	4.95	2.62	549	401	-0.60	-2.64	748	1 101	8.05	2.71
Mexico	2 206	2 530	3.96	1.24	1 001	1 077	1.96	0.53	79	92	6.21	0.00
Paraguay	605	886	-2.99	1.58	13	10	0.00	-1.48	510	761	-3.36	1.50
Peru	290	318	2.76	1.05	648	772	5.12	1.50	1	0	0.06	-0.12
EUROPE	31 183	33 204	2.75	0.73	13 753	11 110	1.04	-2.10	13 820	14 876	5.66	0.77
European Union ¹	16 314	16 618	1.35	0.44	10 123	7 459	0.63	-3.12	2 454	2 372	0.59	-0.01
United Kingdom	1 105	1 274	0.80	1.09	1 129	1 042	0.74	0.09	256	294	-0.31	2.08
Russia	6 910	8 474	6.75	1.50	1 238	1 291	3.67	0.44	5 318	6 532	14.00	1.47
Ukraine	5 934	5 851	2.64	0.47	276	281	-0.13	-0.30	5 260	5 135	2.70	0.30
AFRICA	9 054	10 210	3.46	1.03	10 979	14 952	0.70	2.67	1 558	1 257	1.78	-2.28
Egypt	883	1 071	12.48	0.97	1 708	2 129	-1.52	1.56	131	112	-8.35	-1.54
Ethiopia	58	70	0.93	2.56	494	702	1.42	3.02	0	0	..	..
Nigeria	2 060	2 356	4.82	1.14	1 169	2 087	-3.29	4.46	39	56	-11.07	-1.43
South Africa	623	696	4.36	0.04	797	1 005	0.05	1.86	18	17	-16.49	-1.09
ASIA	129 240	144 997	2.98	0.84	47 927	51 677	2.00	0.71	51 428	53 955	0.74	0.30
China ²	28 273	32 296	2.75	0.91	9 911	7 497	2.20	-1.56	167	175	-5.73	0.00
India	10 948	12 675	2.70	1.43	14 278	17 500	0.83	1.50	215	197	10.09	-0.69
Indonesia	52 473	58 154	4.85	0.68	134	130	6.75	-0.01	29 955	31 717	1.50	0.43
Iran	647	726	8.89	0.97	1 776	1 867	3.60	0.66	93	53	-15.34	-0.66
Japan	1 515	1 518	0.21	-0.36	820	743	0.46	-0.49	6	5	13.15	0.00
Kazakhstan	314	402	4.53	1.36	111	99	3.84	-0.98	109	83	16.19	0.99
Korea	293	299	-0.04	0.03	1 292	1 267	5.18	-0.54	3	3	-0.75	0.00
Malaysia	20 577	22 688	-0.54	0.74	2 038	1 884	5.50	-0.50	17 065	18 411	-0.76	0.50
Pakistan	1 621	1 942	-1.09	1.43	3 269	3 527	2.24	0.29	33	20	-17.02	-0.13
Philippines	2 010	2 206	2.85	0.47	1 392	1 594	6.86	1.82	986	854	2.59	-1.79
Saudi Arabia	140	173	6.54	1.29	810	986	5.02	1.52	36	30	-4.57	-1.50
Thailand	4 128	4 884	6.42	1.23	301	487	2.43	4.76	815	525	13.95	-4.54
Türkiye	2 087	2 416	3.63	1.07	1 748	1 834	1.67	0.30	629	660	-0.13	-0.30
Viet Nam	713	832	3.52	1.41	1 178	1 408	5.03	1.29	141	112	1.50	-1.27
OCEANIA	1 550	1 658	3.42	0.63	359	384	2.20	0.81	965	1 041	2.62	0.49
Australia	569	561	2.09	0.36	246	265	2.75	0.92	204	191	3.03	0.00
New Zealand	5	5	-0.01	0.00	85	93	1.82	0.92	0	0	..	..
DEVELOPED COUNTRIES	53 454	58 060	2.64	0.84	21 746	19 752	1.61	-0.97	18 553	20 306	4.52	1.19
DEVELOPING COUNTRIES	163 817	185 807	2.86	0.93	61 438	68 976	1.67	1.05	64 123	68 422	0.68	0.39
LEAST DEVELOPED COUNTRIES (LDC)	4 005	4 457	1.85	1.18	6 945	9 513	1.81	2.90	565	383	5.66	-3.67
OECD³	44 932	49 364	2.21	0.92	23 691	21 281	1.72	-1.06	8 891	9 985	1.64	1.60
BRICS	57 589	66 507	3.37	1.10	26 899	28 005	1.47	0.54	7 023	8 408	7.68	1.37

.. Not available

Note: Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.21.2. Vegetable oil projections: Consumption, food

Marketing year

	CONSUMPTION (kt)		Growth (%) ⁴		FOOD (kg/cap)		Growth (%) ⁴	
	Average 2020-22est	2032	2013-22	2023-32	Average 2020-22est	2032	2013-22	2023-32
WORLD	216 937	243 701	2.90	0.90	16.0	16.1	0.80	0.14
NORTH AMERICA	19 331	21 397	3.24	0.66	39.8	36.6	1.22	-0.40
Canada	1 564	1 786	4.14	0.94	35.5	35.6	2.86	-0.32
United States	17 766	19 611	3.16	0.63	40.3	36.8	1.08	-0.41
LATIN AMERICA	22 120	25 406	2.44	1.07	17.6	18.2	-0.09	0.26
Argentina	2 595	3 145	-2.18	0.80	19.0	20.5	0.75	0.67
Brazil	10 223	11 591	4.73	1.02	22.6	22.6	-0.91	-0.09
Chile	588	624	2.14	0.45	8.6	8.9	1.04	0.38
Colombia	1 858	2 209	2.15	1.41	13.1	14.7	-0.05	0.90
Mexico	3 128	3 515	3.30	1.05	23.4	24.6	2.30	0.40
Paraguay	103	134	-3.94	1.84	12.2	14.8	-4.96	0.94
Peru	941	1 089	4.39	1.37	10.1	10.8	1.92	0.83
EUROPE	31 074	29 437	0.99	-0.45	21.9	21.4	0.94	-0.05
European Union ¹	24 000	21 704	1.23	-0.89	24.1	21.7	1.59	-0.69
United Kingdom	1 978	2 022	0.94	0.43	28.9	28.6	0.85	0.14
Russia	2 777	3 232	-1.96	1.13	18.5	22.3	-2.07	1.43
Ukraine	938	996	2.00	1.20	9.2	10.5	3.20	1.94
AFRICA	18 509	23 897	1.89	2.26	7.7	8.3	-1.94	0.79
Egypt	2 465	3 086	2.60	1.48	5.6	6.6	-1.68	0.91
Ethiopia	552	773	1.38	2.98	2.6	3.1	-2.63	1.72
Nigeria	3 185	4 385	1.51	2.64	9.4	10.4	-1.77	0.61
South Africa	1 404	1 684	2.31	1.10	14.5	16.1	-3.50	0.60
ASIA	124 994	142 565	3.62	1.00	15.3	16.1	1.59	0.47
China ²	38 236	39 593	2.75	0.39	26.0	27.2	2.38	0.52
India	24 954	29 968	1.59	1.48	9.9	11.0	0.90	1.01
Indonesia	22 058	26 488	10.90	0.97	10.3	12.2	5.19	1.09
Iran	2 295	2 538	5.03	0.79	13.6	14.1	5.35	0.30
Japan	2 304	2 256	0.34	-0.40	18.2	19.0	0.67	0.17
Kazakhstan	322	418	2.61	0.86	14.1	16.6	2.16	0.12
Korea	1 592	1 563	4.26	-0.40	17.9	18.4	4.34	0.21
Malaysia	5 298	6 138	2.30	1.06	9.6	9.9	0.88	0.12
Pakistan	4 875	5 448	1.26	0.69	4.2	4.2	-7.17	0.24
Philippines	2 330	2 940	4.75	2.05	13.7	15.5	4.05	1.19
Saudi Arabia	911	1 128	5.94	1.61	19.7	22.1	3.62	0.81
Thailand	3 713	4 845	5.70	2.47	11.0	12.1	4.77	1.06
Türkiye	3 175	3 588	3.22	0.93	16.5	17.9	0.02	0.85
Viet Nam	1 763	2 127	4.84	1.50	5.0	6.2	4.35	1.81
OCEANIA	911	1 000	3.41	0.92	17.0	16.6	0.29	-0.11
Australia	603	636	2.01	0.77	22.8	22.2	0.55	-0.13
New Zealand	90	98	1.72	0.87	16.8	16.8	-0.06	0.19
DEVELOPED COUNTRIES	56 516	57 509	1.77	0.07	25.3	24.5	0.94	-0.10
DEVELOPING COUNTRIES	160 422	186 192	3.32	1.18	13.9	14.3	0.88	0.33
LEAST DEVELOPED COUNTRIES (LDC)	10 385	13 584	1.75	2.55	7.0	7.8	-1.30	1.24
OECD³	59 616	60 663	2.19	0.07	26.6	25.4	1.41	-0.18
BRICS	77 594	86 067	2.39	0.89	18.3	19.1	1.27	0.46

Note: Average 2020-22est: Data for 2022 are estimated.

1. Refers to all current European Union member States.
2. Refers to mainland only. The economies of Chinese Taipei, Hong Kong (China) and Macau (China) are included in the Asia aggregate.
3. Excludes Iceland and Costa Rica but includes all EU member countries.
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en

ANNEX C

Table C.22. Main policy assumptions for oilseed markets

Marketing year

		Average 2020-22est	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
ARGENTINA												
Export tax												
Soybean	%	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Other oilseeds	%	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Soybean meal	%	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Soybean oil	%	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
CANADA												
Tariffs												
Palm oil	%	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
EUROPEAN UNION^{1,2}												
Voluntary coupled support												
Soybean	mIn EUR	37	36	36	36	37	38	39	40	41	41	41
Tariffs												
Soybean oil	%	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Rapeseed oil	%	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
KOREA												
Soybean tariff-quota	kt	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200
In-quota tariff	%	3	3	3	3	3	3	3	3	3	3	3
Out-of-quota tariff	%	487	487	487	487	487	487	487	487	487	487	487
Soybean (for food) mark up	'000 KRW/t	131	131	131	131	131	131	131	131	131	131	132
MEXICO												
Tariffs												
Soybean	%	33	33	33	33	33	33	33	33	33	33	33
Soybean meal	%	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
Soybean oil	%	45	45	45	45	45	45	45	45	45	45	45
UNITED STATES												
ARC participation rate												
Soybean	%	51.1	50.5	50.5	50.8	51.2	51.2	50.8	50.5	50.5	50.5	50.5
Soybean loan rate	USD/t	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8	229.8
Tariffs												
Rapeseed	%	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Soybean meal	%	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Soybean oil	%	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
Rapeseed oil	%	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
CHINA												
Tariffs												
Soybean	%	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Soybean meal	%	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Soybean oil in-quota tariff	%	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Vegetable oil tariff-quota	kt	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1	7 998.1
INDIA												
Soybean tariff	%	40.1	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Rapeseed tariff	%	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Soybean meal tariff	%	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Soybean oil tariff	%	24.5	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
INDONESIA												
Protein meal tariff	%	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PAKISTAN												
Protein meal tariff	%	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
VIET NAM												
Protein meal tariff	%	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Note: Marketing year: See Glossary of Terms for definitions. Average 2020-22est: Data for 2022 are estimated. The sources for tariffs and Tariff Rate Quotas are the national questionnaire reply, UNCTAD and WTO.

1. Since 2015 the Basic payment scheme (BPS) holds, which shall account for 68% maximum of the national direct payment envelopes. On top of this, compulsory policy instruments have been introduced: the Green Payment (30%) and young farmer scheme (2%).
2. Refers to all current European Union member States.

Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database). dx.doi.org/10.1787/agr-outl-data-en