Chapter 4. Oilseeds and oilseed products

This chapter describes the market situation and highlights the medium-term projections for world oilseed markets for the period 2019-28. Price, production, consumption and trade developments for soybean, other oilseeds, protein meal and vegetable oil are discussed. The chapter concludes with a discussion of important risks and uncertainties affecting world oilseed markets during the coming ten years.

4.1. Market situation

The downward trend in vegetable oil prices continued in 2018, with average prices reaching a ten-year low. For oil meals and seeds, however, prices peaked in the first half of 2018, but have since experienced a similar, although less dramatic, decline. The high levels of stocks among major exporters, coupled with market uncertainties related to trade talks between the United States and People's Republic of China (hereafter "China"), have influenced these price trends.

Global soybean production increased in 2018, with the United States and Brazil recording bumper crops, contributing to inventory build-ups. Demand for protein meals has tapered off given China's imposition of additional tariffs on US soybean exports and subsequent moves to lower the share of protein meal in feed rations. African swine fever continued to affect China's livestock sector, curbing feed demand. The government recently also supported to decrease the minimum share of protein in feed rations, which was first proposed by a major industry association.

The vegetable oil sector was characterised by a slowdown in global trade, largely reflecting a decrease in edible oil imports by India in 2018. This resulted from an expansion in domestic oilseeds production, combined with increased import tariffs. Several countries also expanded their crushing capacity, thus increasing their seed imports at the expense of oil and meal purchases. Accordingly, exports by the main suppliers of vegetable oil, such as Indonesia and Malaysia, expanded less than average, leading to rising stocks and lower prices. The combination of these factors led to the introduction of higher biodiesel mandates in Indonesia, which drove domestic take up of palm oil for biodiesel production from 3.5 million litres in 2017 to 5.1 million litres in 2018.

4.2. Projection highlights

During the outlook period, global soybean production is projected to continue to expand at 1.6% p.a., with the expansion of area harvested accounting for 53% of global output growth. With its domestic output reaching 144 Mt by 2028, Brazil will become the world's largest producer, overtaking the United States, for which output is projected to be 121 Mt by 2028. Production of other oilseeds will increase by 1.4% p.a. over the next decade, reflecting slower growth relative to the last ten years, due in part to curbed demand for rapeseed oil as a feedstock in European biodiesel production. Crushing of soybeans and other oilseeds into meal (cake) and oil will continue to dominate usage and increase faster than other uses, such as direct food/feed consumption of soybeans, groundnuts and sunflower seeds. Overall, 91% of world soybean output and 87% of world production of other oilseeds are projected to be crushed in 2028.

Vegetable oil includes oil obtained from the crushing of soybeans and other oilseeds (about 55% of world vegetable oil production), palm oil (35%), as well as palm kernel, coconut and cottonseed oils. Despite a slowdown in the expansion of the mature oil palm area, significant production growth is projected in Indonesia (4.6 Mt) and Malaysia (2.3 Mt). However, the rise in Indonesia's domestic biodiesel requirement will place pressure on vegetable oil supplies in the medium term. Global demand for vegetable oil will expand by +28 Mt by 2028, which is likely to draw down high inventories and support vegetable oil prices over the outlook period.

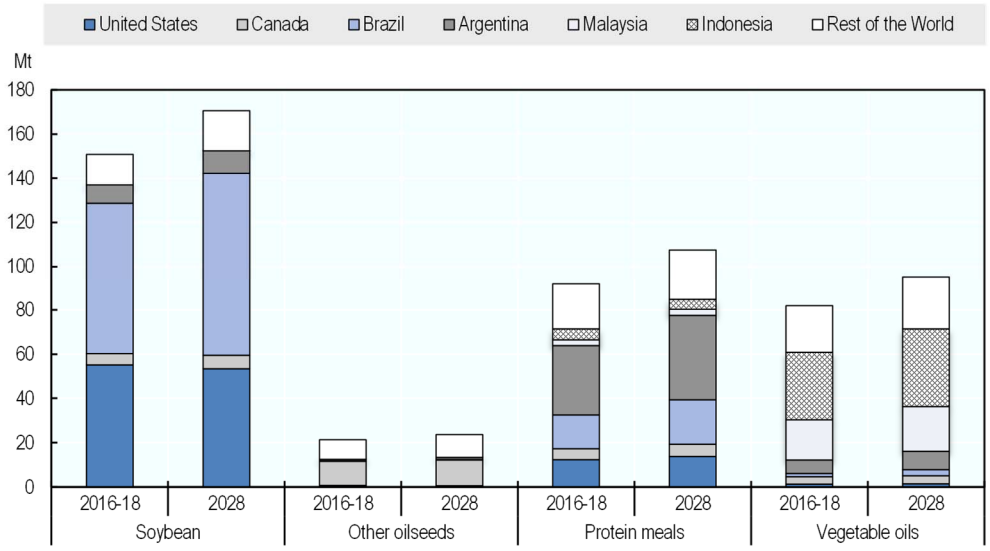
Soybean meal dominates protein meal production and consumption. Compared to the past decade, the expansion of protein meal utilisation (1.5% p.a. vs. 4.1% p.a.) will be

constrained by slower growth in global production of pork and poultry, and by efforts in China to adopt a lower protein meal share in livestock feed rations. As a result, Chinese protein meal use is projected to grow slightly slower than animal production.

Vegetable oil has one of the highest trade shares (40%) of production of all agricultural commodities. Indonesia and Malaysia, the world's two main suppliers of palm oil – the greatest single component of vegetable oil – will continue to dominate vegetable oil trade (Figure 4.1), exporting over 70% of their combined production and jointly accounting for nearly 60% of global exports.

Growth in world trade of soybeans, dominated by the Americas, is expected to slow considerably in the next decade, a development directly linked to the projected slower growth in the crushing of imported soybeans in China. In parallel, Brazil will consolidate its position as the world's largest exporter of soybean.

Figure 4.1. Exports of oilseeds and oilseed products by region



Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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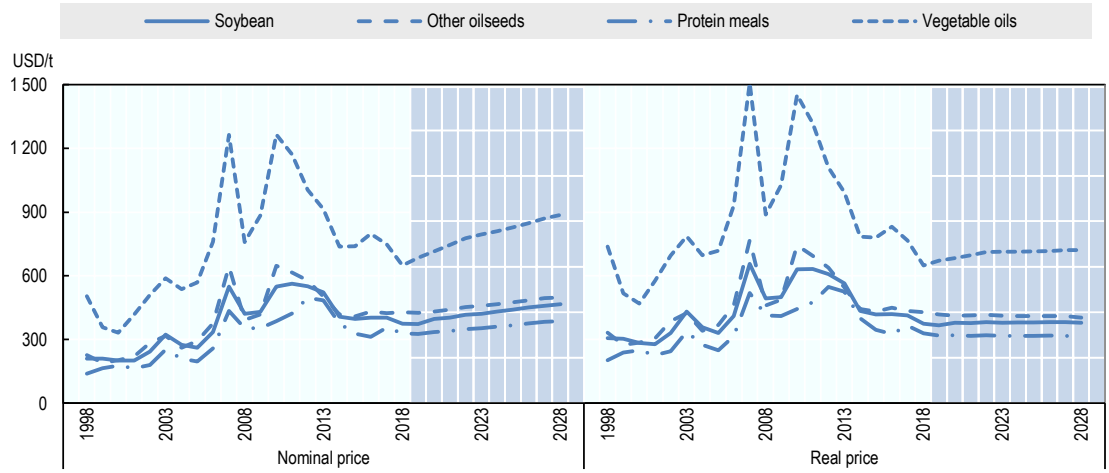
The expansion of soybean production and exports by the United States and Brazil will be subject to the outcome of the ongoing trade negotiations between China and the United States. The scope to increase palm oil output in Indonesia and Malaysia will increasingly depend on replanting activities and accompanying yield improvements (as opposed to area expansion), which in recent years have been sluggish given the low profitability of the sector, the limited scale of public replanting programmes in Indonesia, and rising labour costs in Malaysia. Sustainability concerns also influence the expansion of palm oil output as demand in developed countries favours oils not associated with deforestation and seeks sustainability certifications for vegetable oil used as biodiesel feedstock and, increasingly, for vegetable oils entering the food chain.

4.3. Prices

Vegetable oil prices, which stand at a thirteen-year low in real terms, are expected to begin an upward trend. Prices are set to recover as the ongoing global expansion of food and oleochemical demand for vegetable oil coupled with new domestic demand for vegetable oil as a biodiesel feedstock in selected countries, notably Indonesia will bring down its stocks, which currently stand at a ten-year high level. At the same time, production constraints in major palm oil-producing countries will hamper any major expansion of supplies over the next decade, thus consolidating the upward trend of real vegetable oil prices.

Real prices for soybean, other oilseed and protein meals will decline slightly as demand growth is expected to expand slightly slower than global supplies. Real prices will nonetheless remain above historical troughs (Figure 4.2). In nominal terms, prices of oilseeds and oilseed products are expected to rise over the medium term, although they are not expected to attain previous highs.

Figure 4.2. Evolution of world oilseed prices



Note: Soybeans, United States, 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 (2018=1).
Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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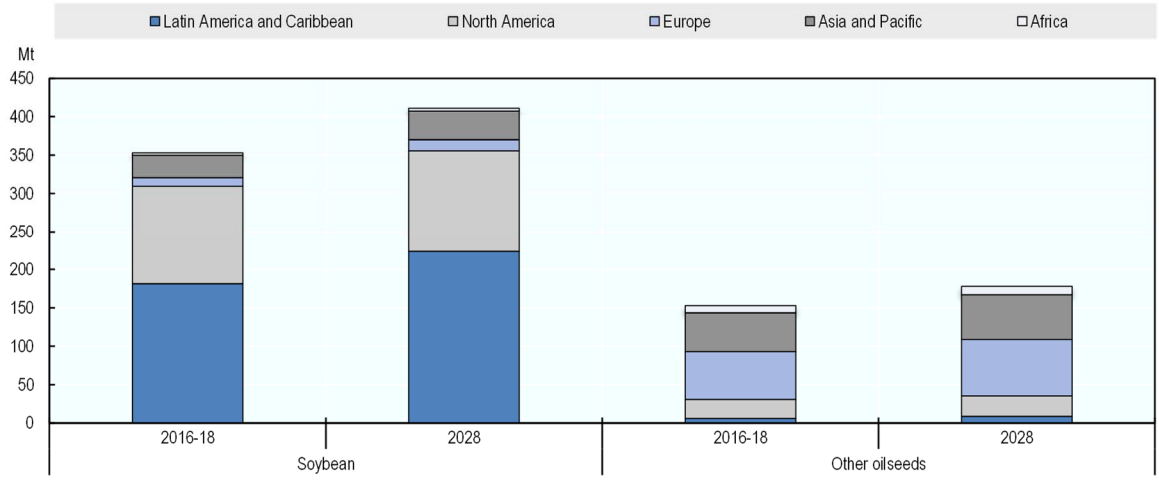
4.4. Oilseed production

The production of soybeans is projected to grow by 1.6% p.a., compared to 4.4% p.a. over the last decade. The production of other oilseeds (rapeseed, sunflower seed, and groundnuts) will grow slower than the production of soybeans, at 1.4% p.a. compared to 3.1% p.a. over the past ten years. Growth in other oilseeds is dominated by yield increases, which will account for 64% of production growth, compared to 46% of overall production growth derived from yields in the case of soybeans.

Brazil and the United States are currently producing similar amounts of soybeans (around 120 Mt in 2016-18), but over the next decade, the projected growth in Brazil (1.8% p.a.)

should be stronger than in the United States (1.2% p.a.), mainly due to the possibility to expand area planted, mainly through crop intensification by double cropping soybean with maize. In addition, assuming that the additional tariffs China recently introduced on United States soybeans remain in place, Brazilian soybeans will enjoy a competitive advantage in the world's largest import market. Overall, the production of soybeans will continue to grow strongly in Latin America, with Argentina and Paraguay producing 62 Mt and 13 Mt by 2028 (Figure 4.3). In China, soybean production is expected to resume growth after decreases over the past decade due partly to reduced policy support for the cultivation of cereals. Soybean production is also expected to grow in India, the Russian Federation, Ukraine, and Canada.

Figure 4.3. Oilseed production by region



Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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China (which produces mainly rapeseed and groundnuts) and the European Union (a major producer of rapeseed and sunflower seed) are the most important producers of other oilseeds, with projected output of 32 Mt and 30 Mt in 2028. However, limited growth in output is projected for both regions (China 1.0% p.a. and European Union 0.6% p.a.) as competitive prices for cereals will generate strong competition for constant to declining arable land. Canada, another major producer and the largest exporter of rapeseed, is projected to increase its production by 1.2% p.a. By contrast, faster growth in other oilseed production is projected for Ukraine and the Russian Federation, in line with the ongoing expansion of the agricultural sector in the Black Sea region. In India, other oilseeds production will expand faster over the next ten years as the government continues to support production in order to respond to domestic demand for vegetable oils and protein meal.

Soybean stocks are expected to remain unchanged, which implies that the world stock-to-use ratio would decline from 12.3% in 2016-18 to 10.7% in 2028. Given the global trend to gradually concentrate oilseed production in a few major producing countries, the declining stock-to-use ratio could result in increased price volatility.

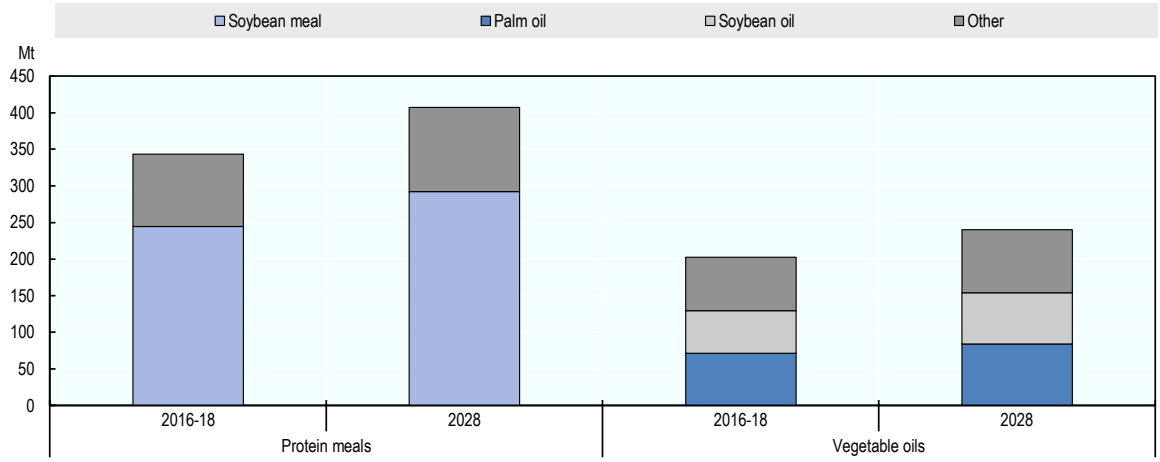
4.5. Oilseed crush and production of vegetable oils and protein meal

Globally, the crushing of soybeans and other oilseeds into meal (cake) and oil dominates total usage. The demand for crush will increase faster than other uses, notably direct food consumption of soybeans, groundnuts and sunflower seeds, as well as direct feeding of soybeans. Overall, 90% of world soybean production and 86% of world production of other oilseeds will be crushed in 2028. The crush location depends on many factors, including transport costs, trade policies, acceptance of genetically modified crops, processing costs (e.g. labour and energy), and infrastructure (e.g. ports and roads).

In absolute terms, soybean crush expands by 61 Mt over the outlook period, well below the 111 Mt expansion of the previous decade. Chinese soybean crush is expected to increase by 19 Mt, accounting for about 31% of the world's additional soybean 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. Crush of other oilseeds is expected to grow in line with production and its location closer to production compared to soybeans. This implies a much lower trade share for other oilseeds than for soybeans.

Global vegetable oil production depends on both the crush of oilseeds and the production of perennial tropical oil plants, especially oil palm. Global palm oil output has outpaced the production of other vegetable oils in the past decade. However, the position of palm oil is expected to weaken slightly over the projection period (Figure 4.4). Production of palm oil is concentrated in Indonesia and Malaysia, which together account for more than one third of world vegetable oil production.

Figure 4.4. Protein meal and vegetable oil production by type



Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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Palm oil production in Indonesia is expected to grow by 1.8% p.a. over the projection period compared with 6.9% p.a. in the previous decade. Increasingly stringent environmental policies from the major importers of palm oil and sustainable agricultural norms (e.g. in the context of the 2030 Agenda for Sustainable Development) are expected to slow the expansion of the oil palm area in Malaysia and Indonesia. This implies that growth in production will be increasingly sourced from productivity improvements,

including an acceleration in replanting activities. 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 2.9 Mt by 2028, Colombia 2.0 Mt, and Nigeria 1.2 Mt. In certain countries of Central America, niche palm oil production is developing from the outset with global sustainability certifications in place, positioning the region for eventually reaching broader export markets. At the global level, palm oil supplies are projected to expand at an annual rate of 1.8%.

In addition to palm oil and oil extracted from the crush of oilseeds analysed above, palm kernel, coconut and cottonseed oil complete the vegetable oil aggregate. Palm kernel oil is produced alongside palm oil and follows the 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, and dominance has shifted towards palm kernel oil along the growing production of palm oil. Cottonseed oil is a by-product of cotton, with global production concentrated largely in India, the United States, Pakistan, and China. Overall, vegetable oil production is expected to increase globally by 1.7% p.a., a higher rate than most agricultural commodities covered in this *Outlook*.

Global protein meal output is projected to expand by 1.6% p.a., reaching 400 Mt by 2028. World production of protein meals is dominated by soybean meal which accounts for more than two-thirds of world protein meal production (Figure 4.4). Production is concentrated in a small group of countries. Argentina, Brazil, China, the European Union, India, and the United States are projected to account for 75% of global production by 2028. In China and the European Union, most protein meal production comes from crushing of imported oilseeds, primarily soybeans from Brazil and the United States.

4.6. Vegetable oil consumption

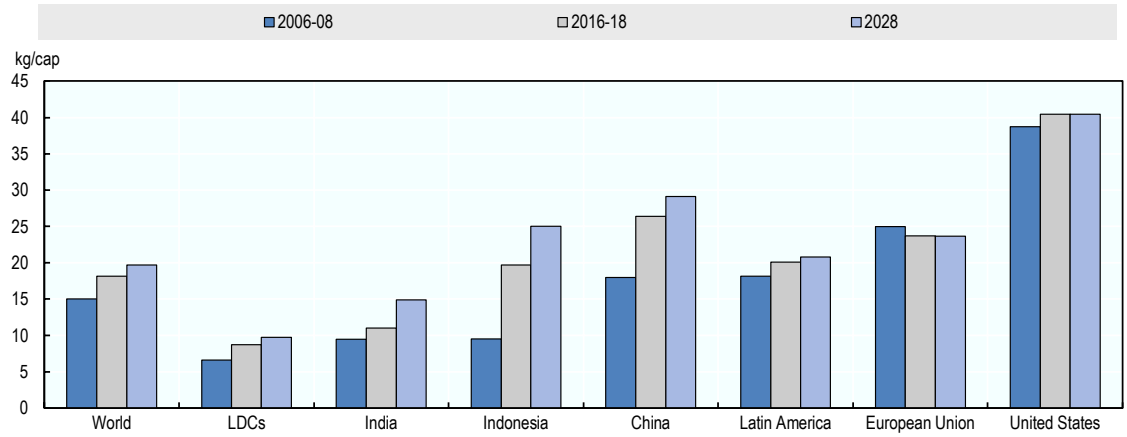
Per capita consumption of vegetable oil for food is projected to grow by 0.9% p.a., which is considerably less than the 2.0% p.a. increase observed during 2009-18. In China (30 kg per capita) and Brazil (24 kg per capita), the per capita level of vegetable oil food availability is set to reach levels comparable to those of developed countries, for which growth in vegetable oil food consumption will level off at 27 kg per capita, growing at 0.4% p.a. (Figure 4.5).

India, the second largest consumer and number one importer of vegetable oil in the world, is projected to maintain a high per capita consumption growth of 3.1% p.a. and to reach 15 kg per capita in 2028. This substantial growth will be the result of both expansion of its domestic production, sourced in the intensification of oilseed cultivation, and a further increase in imports of mainly palm oil from Indonesia and Malaysia. For LDCs, the per capita availability of vegetable oil is projected to increase by 1.2% p.a. to reach 10 kg per capita in 2028.

The uptake of vegetable oil as feedstock for biodiesel will remain unchanged over the next ten years, as compared to the 8.5% p.a. increase recorded over the previous decade when biofuel support policies were taking effect. 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 largely due to specific policies (see Chapter 9 for more details on biofuels). Argentina is expected to maintain an export-oriented biodiesel industry (more than half of produced biodiesel is exported). Vegetable oil uptake by Argentina's biodiesel industry is projected to be 3.2 Mt by 2028, equivalent to 75% of domestic vegetable oil consumption

(Figure 4.6). Indonesia, Brazil, and Thailand recorded strong growth in biodiesel production over the last decade, but this is expected to taper off in the coming decade but expected to exceed overall food demand growth for vegetable oil, in part underpinned by support measures to stimulate domestic biodiesel consumption.

Figure 4.5. Per capita food availability of vegetable oil in selected countries



Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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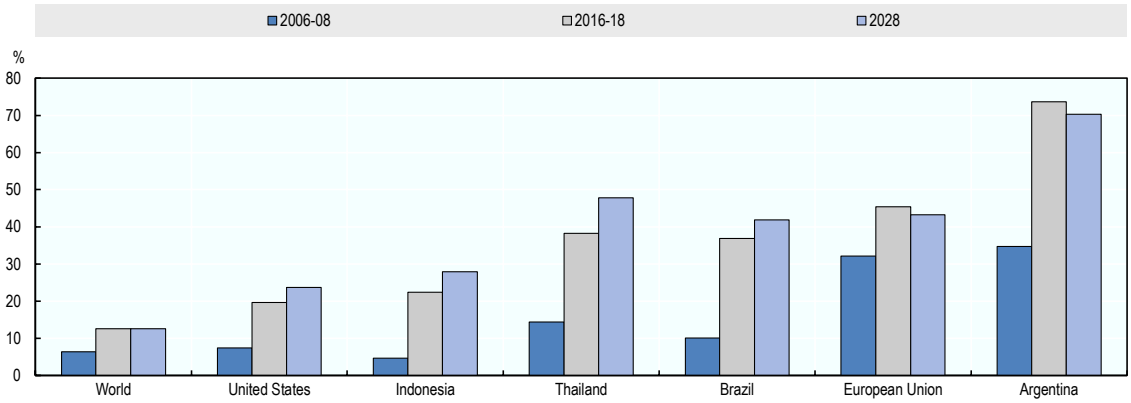
Figure 4.6. Share of vegetable oil used for biodiesel production



Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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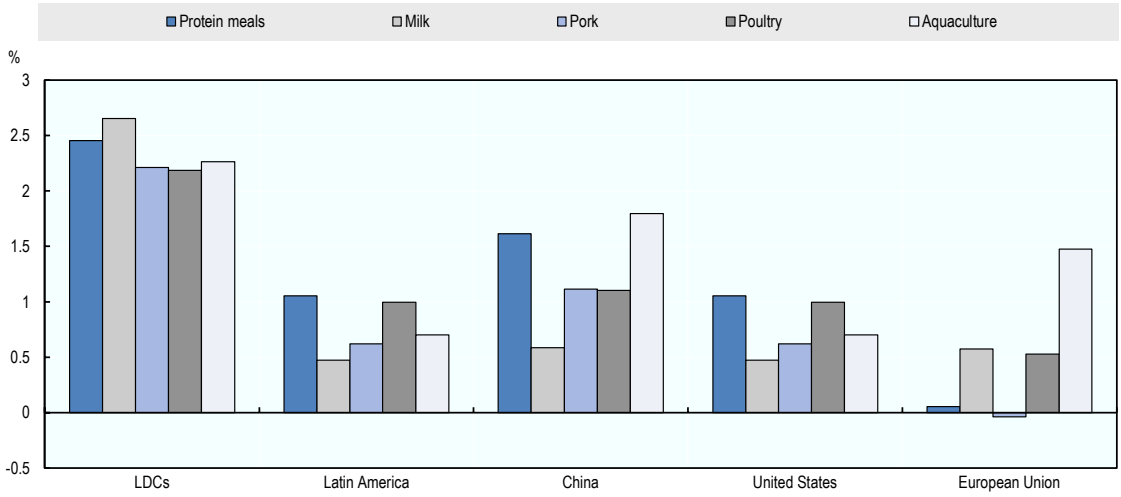
4.7. Protein meal consumption

Protein meal consumption is expected to continue to grow at 1.6% p.a., considerably below the last decade's growth rate of 4.2% p.a. The growth in protein meal consumption is closely linked to the development of feed demand, as protein meal is exclusively used as feed. The link between animal production and protein meal consumption is associated with a country's degree of economic development, with backyard production characterising

lower income producers and industrial production the norm in higher income economies (Figure 4.7).

Figure 4.7. Average annual growth in protein meal consumption and animal production (2019-28)



Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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Because of a shift to more feed-intensive production systems in developing countries, growth in protein meal consumption tends to exceed growth in animal production. In LDCs, where the use of protein meals is very low, intensification in livestock production with more widespread use of commercial feed is expected to continue. The use of protein meal per unit of livestock production should increase considerably leading to fast growth in total demand in these countries. In countries such as the United States and in the European Union, where most animal production is compound feed-based, protein meal consumption are expected to grow at similar rates as for animal production.

Protein meal consumption growth in China is projected to decline from 6.3% p.a. in the last decade to 1.6% p.a. Growth in China's compound feed demand is expected to shrink due to declining growth rates for animal production and the existing large share of compound feed-based production. Furthermore, the protein meal content in China's compound feed surged in the last decade and considerably exceeds at present the levels found in the United States and European Union. To address this issue, the government of China recently supported a downward revision to the recommended protein content in feed rations which was originally proposed by a major industry association.

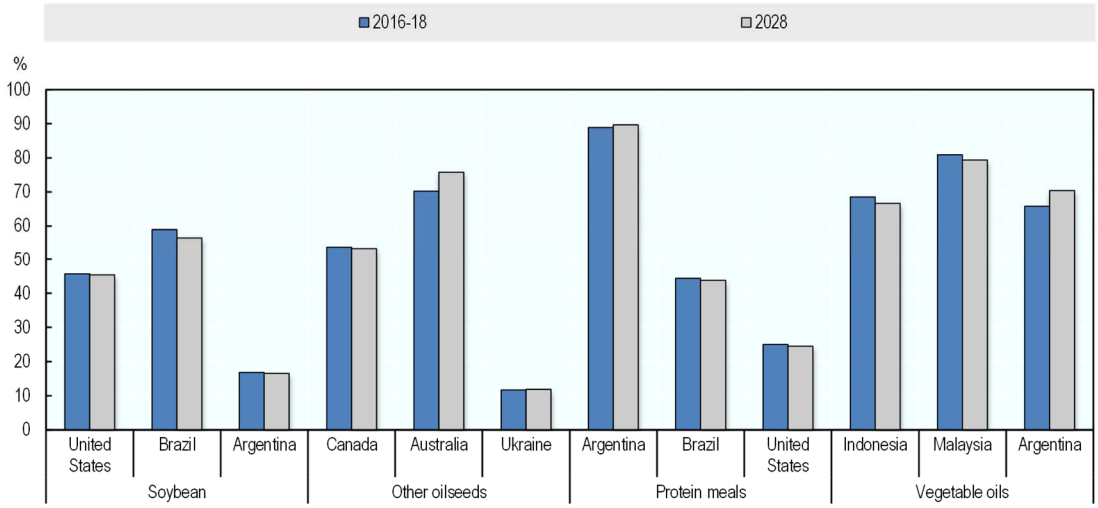
4.8. Trade

Over 40% of world soybean production is traded internationally, a high share compared to other agricultural commodities. Compared to the previous decade, the expansion in world soybean trade is expected to decelerate considerably during the outlook period. This development is directly linked to projected slower growth of the soybean crush in China.

Chinese soybean imports are expected to grow by 1.5% p.a. to about 113 Mt in 2028, accounting for about two-thirds of world soybean imports. Exports of soybeans originate predominately from the Americas; the United States, Brazil and Argentina are projected to account for 87% of world soybean exports in 2028. Whereas the United States was historically the largest global exporter of soybeans, Brazil has taken that role with steady growth in its export capacity. By 2028, it is projected that Brazil will account for 42% of total global exports of soybean. This development is favoured by the additional 25% tariffs applied by China on soybean imported from the United States. It is assumed these tariffs will remain in place throughout the outlook period.

For other oilseeds, its share of global production trade is much lower than that for soybeans, at about 14% of world production. Important exporters are Canada, Australia, and Ukraine, which together are projected to account for more than 75% of world exports by 2028. In Canada and Australia, more than half of the other oilseed (rapeseed) production is exported (Figure 4.8).

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 (2019), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

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Vegetable oil exports, which amount to 41% of global vegetable oil production, continue to be dominated by a few players. Indonesia and Malaysia will continue to account for almost two-thirds of total vegetable oil exports during the outlook period. Argentina is projected to become the third largest exporter (mainly of soybean oil), reaching about 7.9% of the world vegetable oil exports in 2028. In all three countries, it is expected that exports will account for more than two-thirds of the domestic production of vegetable oil. However, this share is projected to contract slightly in Indonesia and Malaysia as domestic demand for food, oleochemical and especially biodiesel uses is expected to grow more than exports. India is expected to continue its strong growth in imports at 3.7% p.a., reaching 22 Mt in 2028, or about a quarter of world vegetable oil imports.

The expected growth in world trade of protein meal is around 1.5% p.a. over the outlook period, down from 3.6% p.a. during the last decade, and will be characterised by a declining share of trade in global production. This shift is projected as the global expansion of meat production will be concentrated in the main oilseed-processing countries, where the use of locally-produced protein meal will increase, and thus trade will expand only slightly.

Argentina will remain the largest meal exporter because it is the only major protein meal producer with a clear export orientation. The largest importer is the European Union, with imports projected to remain almost unchanged at 28.1 Mt in 2028. More than half of the 18 Mt global import growth in protein meal will occur in Asia, especially in Viet Nam, Pakistan, and Thailand. Domestic crushing capacity in these countries are not expected to keep pace with protein meal demand, and expansion of the livestock sector will therefore require imported feed to meet production requirements.

4.9. Main issues and uncertainties

The uncertainties common to most commodities (e.g. macroeconomic environment, crude oil prices, and weather conditions) apply to oilseeds and products. Due to the concentration of production in a few regions of the world, the production impact of weather variations is more pronounced in the oilseeds and palm oil complex than in other major crop markets.

The expansion of soybean production in the United States and Brazil will be subject to the outcomes of the ongoing trade negotiations between China and the United States, which could result in an expansion of soybean cultivation in Brazil to respond to Chinese demand and the parallel conversion of soybean area to maize in the United States. The evolution of such negotiations could also influence demand for other oilseeds from other origins, replacement effects, and the volume of China's imports of meals and oils.

Consumer concerns regarding soybeans stem from the high share of soybean production derived from genetically modified seeds. In the European Union in particular, 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. Environmental concerns are also on the rise, especially with respect 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 expansions. If successful, these voluntary initiatives should discourage further clearing of land by soybean producers.

The scope for increasing palm oil output in Indonesia and Malaysia will increasingly depend on replanting activities and accompanying yield improvements (as opposed to area expansion), which in recent years have been sluggish given the low profitability of the sector, the limited scale of public replanting programmes in Indonesia, and rising labour costs in Malaysia. Sustainability concerns also influence the expansion of palm oil output as demand in developed countries favours deforestation-free oils and seeks sustainability certifications for vegetable oil used as biodiesel feedstock and, increasingly, for vegetable oils entering the food chain.

Certification schemes, labelling, and environmental legislation might curb area expansion in key palm oil-producing countries and purchases by major importers, which would eventually affect supply growth. These concerns present specific constraints to the further expansion of oil palm plantations and their export for Malaysia and Indonesia.

The demand for vegetable oil as feedstock for biodiesel is levelling off after its rapid growth beginning in 2000 when domestic biofuel policies were first implemented in several countries. In the United States, the European Union, and Indonesia these policies remain a source of major uncertainty in the vegetable oil sector given that about 12% of global vegetable oil supplies go to biodiesel production. In the European Union, policy reforms and the emergence of second-generation biofuel technologies will likely prompt a shift away from crop-based feedstocks. In Indonesia, the attainability of the recently proposed 30% biodiesel mandate remains to be seen, in view of the fact that it may impose medium term supply constraints. The development of mineral oil prices, which affects the profitability of biodiesel production, also remains a major source of uncertainty in the vegetable oil sector.

Protein meals compete in part with other feed components in the production of compound feed and are thus reactive to any change in cereal prices. In addition, changing feeding habits, especially in the cattle sector, can alter the demand for protein meals. Ongoing adjustments in domestic cereal prices in China, for example, will affect the composition of its compound feeds, which currently contain a higher share of protein meal than in developed countries and other major emerging economies.

Table C.2. World oilseed projections

Marketing year

		Average 2016-18est	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
SOYBEAN												
World												
Production	Mt	352.8	357.1	362.1	368.5	374.6	381.8	387.5	393.2	398.9	404.8	411.0
Area	Mha	124.3	126.3	127.2	128.1	129.0	130.1	131.0	131.8	132.6	133.4	134.3
Yield	t/ha	2.84	2.83	2.85	2.88	2.90	2.93	2.96	2.98	3.01	3.03	3.06
Consumption	Mt	347.0	358.8	365.5	370.8	376.1	381.8	387.5	393.1	398.9	404.8	410.9
Crush	Mt	311.8	322.5	329.2	334.3	339.3	344.7	350.1	355.5	361.1	366.8	372.4
Closing stocks	Mt	42.6	50.9	47.5	45.2	43.7	43.6	43.7	43.8	43.7	43.8	43.9
Price[1]	USD/t	393.8	373.5	395.9	403.0	415.4	421.2	431.0	440.3	450.3	459.5	465.8
Developed countries												
Production	Mt	140.9	129.6	131.0	133.3	135.4	138.2	140.3	142.3	144.4	146.6	148.8
Consumption	Mt	91.2	94.0	95.2	96.1	97.0	98.0	99.0	100.0	101.0	102.1	103.3
Crush	Mt	82.2	84.5	85.7	86.6	87.4	88.3	89.2	90.1	91.1	92.1	93.1
Closing stocks	Mt	19.4	27.2	23.8	21.5	19.9	19.5	19.4	19.3	19.1	19.0	18.9
Developing countries												
Production	Mt	211.9	227.4	231.1	235.2	239.2	243.6	247.3	250.8	254.5	258.3	262.2
Consumption	Mt	255.8	264.8	270.3	274.7	279.1	283.8	288.5	293.1	297.9	302.8	307.7
Crush	Mt	229.6	238.0	243.4	247.7	251.9	256.5	260.9	265.4	270.0	274.7	279.4
Closing stocks	Mt	23.3	23.7	23.7	23.8	23.8	24.1	24.3	24.5	24.6	24.8	25.0
OECD[2]												
Production	Mt	131.8	119.7	121.0	123.0	124.9	127.4	129.3	131.1	133.0	134.9	136.9
Consumption	Mt	91.3	93.8	95.0	96.0	97.0	98.0	99.1	100.1	101.2	102.2	103.4
Crush	Mt	82.3	84.3	85.6	86.5	87.4	88.4	89.4	90.3	91.3	92.3	93.2
Closing stocks	Mt	19.5	27.0	23.7	21.4	19.8	19.5	19.3	19.2	19.0	18.9	18.7
OTHER OILSEEDS												
World												
Production	Mt	152.8	157.2	158.9	161.7	164.1	166.5	168.9	171.2	173.4	175.6	178.0
Area	Mha	88.7	90.3	90.4	91.1	91.6	92.1	92.6	93.0	93.4	93.8	94.3
Yield	t/ha	1.72	1.74	1.76	1.77	1.79	1.81	1.82	1.84	1.86	1.87	1.89
Consumption	Mt	151.9	156.8	159.3	161.5	163.9	166.3	168.7	171.0	173.3	175.5	178.0
Crush	Mt	130.8	135.6	137.9	139.8	142.1	144.2	146.3	148.4	150.5	152.4	154.7
Closing stocks	Mt	8.5	8.4	8.0	8.2	8.4	8.7	8.9	9.1	9.2	9.4	9.4
Price[3]	USD/t	428.0	426.3	431.5	441.5	453.3	458.2	466.0	475.5	484.3	494.5	497.1
Developed countries												
Production	Mt	92.5	95.5	96.2	98.0	99.4	100.7	102.0	103.2	104.4	105.5	106.8
Consumption	Mt	82.7	85.6	86.8	87.6	88.7	89.6	90.6	91.4	92.3	93.1	94.1
Crush	Mt	75.0	78.0	79.0	79.8	80.8	81.7	82.6	83.3	84.2	85.0	85.9
Closing stocks	Mt	6.2	6.4	6.0	6.2	6.3	6.6	6.8	6.9	7.0	7.1	7.1
Developing countries												
Production	Mt	60.3	61.6	62.7	63.7	64.7	65.8	66.9	68.0	69.1	70.1	71.2
Consumption	Mt	69.3	71.2	72.6	73.9	75.2	76.7	78.1	79.6	81.0	82.3	83.8
Crush	Mt	55.8	57.7	58.9	60.1	61.3	62.5	63.8	65.1	66.3	67.5	68.8
Closing stocks	Mt	2.3	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3
OECD[2]												
Production	Mt	61.0	61.1	61.2	62.3	63.0	63.6	64.2	64.7	65.1	65.5	66.0
Consumption	Mt	56.2	56.9	57.5	57.8	58.3	58.7	59.1	59.4	59.7	59.9	60.3
Crush	Mt	50.3	50.9	51.5	51.7	52.2	52.5	52.9	53.1	53.4	53.7	54.0
Closing stocks	Mt	5.3	5.5	5.1	5.3	5.5	5.7	5.9	6.1	6.2	6.3	6.3
PROTEIN MEALS												
World												
Production	Mt	343.0	354.5	361.3	366.6	372.2	377.9	383.7	389.4	395.3	401.1	407.2
Consumption	Mt	342.0	354.6	361.3	366.5	372.1	377.8	383.6	389.3	395.2	401.0	407.1
Closing stocks	Mt	15.3	13.8	13.8	13.9	13.9	14.0	14.1	14.2	14.2	14.3	14.4
Price[4]	USD/t	332.5	325.2	335.7	339.6	348.3	353.4	360.8	367.9	376.1	382.7	387.2
Developed countries												
Production	Mt	108.7	111.4	112.9	114.0	115.2	116.3	117.5	118.6	119.8	121.0	122.2
Consumption	Mt	124.4	127.2	128.4	129.2	130.0	130.8	131.6	132.3	133.1	133.9	134.7
Closing stocks	Mt	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9
Developing countries												
Production	Mt	234.2	243.1	248.3	252.6	257.0	261.6	266.2	270.8	275.5	280.2	285.0
Consumption	Mt	217.6	227.3	232.8	237.3	242.1	247.0	252.0	257.0	262.1	267.2	272.4
Closing stocks	Mt	13.5	12.0	12.0	12.1	12.1	12.2	12.2	12.3	12.4	12.5	12.6
OECD[2]												
Production	Mt	99.1	100.6	102.1	103.0	104.0	105.1	106.1	107.0	108.1	109.0	110.1
Consumption	Mt	128.0	130.6	132.2	133.3	134.3	135.4	136.5	137.5	138.6	139.6	140.7
Closing stocks	Mt	1.6	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6

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

Marketing year

		Average 2016-18est	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
VEGETABLE OILS												
World												
Production	Mt	202.6	210.6	214.0	216.9	220.1	223.4	226.7	229.9	233.2	236.4	239.8
of which palm oil	Mt	71.3	74.7	75.6	76.5	77.6	78.7	79.8	80.8	81.8	82.9	83.9
Consumption	Mt	201.2	210.9	214.2	217.1	220.2	223.3	226.6	229.8	233.1	236.4	239.7
Food	Mt	136.3	140.8	143.2	145.7	148.2	150.8	153.6	156.3	159.2	162.0	164.8
Biofuel	Mt	25.4	29.8	30.5	30.5	30.4	30.5	30.4	30.4	30.3	30.3	30.2
Exports	Mt	81.9	84.6	85.8	87.0	88.2	89.2	90.4	91.6	92.8	94.1	95.4
Closing stocks	Mt	22.3	21.1	20.9	20.7	20.6	20.7	20.9	21.0	21.0	21.0	21.1
Price[5]	USD/t	731.6	685.2	715.4	744.8	776.0	794.6	810.3	827.8	846.9	868.9	886.5
Developed countries												
Production	Mt	50.0	51.6	52.3	52.8	53.4	54.0	54.6	55.1	55.7	56.2	56.8
Consumption	Mt	53.9	56.1	56.4	56.7	57.1	57.2	57.2	57.2	57.2	57.2	57.1
Closing stocks	Mt	3.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Developing countries												
Production	Mt	152.6	159.0	161.7	164.1	166.7	169.5	172.1	174.8	177.5	180.2	183.0
Consumption	Mt	147.3	154.8	157.8	160.4	163.1	166.2	169.4	172.6	175.9	179.2	182.6
Closing stocks	Mt	18.6	17.6	17.4	17.2	17.2	17.2	17.4	17.4	17.5	17.5	17.6
OECD[2]												
Production	Mt	39.6	40.2	40.7	41.0	41.4	41.8	42.2	42.5	42.8	43.1	43.5
Consumption	Mt	53.2	55.1	55.4	55.8	56.1	56.2	56.2	56.2	56.3	56.3	56.1
Closing stocks	Mt	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1

Note: Average 2016-18est: Data for 2018 are estimated. Prices are in nominal terms.

1. Soybean, U.S., CIF Rotterdam (October/September).
2. Excludes Iceland 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 (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

Table C.18.1. Soybean projections: Production and trade

Marketing year

	PRODUCTION (kt)		Growth (%)[4]		IMPORTS (kt)		Growth (%)[4]		EXPORTS (kt)		Growth (%)[4]	
	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**352 838**	**411 002**	**4.35**	**1.59**	**150 824**	**170 225**	**7.20**	**1.22**	**150 794**	**170 225**	**6.47**	**1.22**
NORTH AMERICA	127 995	132 032	4.75	1.50	1 168	1 292	5.55	1.09	60 192	62 101	5.18	1.23
Canada	7 274	8 668	8.40	2.07	457	521	5.70	3.00	5 054	6 071	10.43	1.78
United States	120 721	123 364	4.56	1.46	711	771	6.02	-0.03	55 137	56 030	4.78	1.17
LATIN AMERICA	181 455	223 704	4.49	1.58	9 636	7 911	7.88	0.97	85 442	101 700	6.99	1.12
Argentina	48 985	61 914	-0.18	1.34	2 574	0	243.23	..	8 231	10 260	-10.09	0.76
Brazil	116 234	140 989	7.01	1.60	410	410	21.91	0.00	68 568	79 699	12.01	0.97
Chile	0	0	..	..	250	462	3.48	2.10	2	1	0.00	-2.06
Colombia	70	90	0.31	2.61	840	939	7.72	0.64	33	19	76.21	-0.64
Mexico	459	545	15.78	1.87	4 160	4 749	2.44	1.46	0	0	..	..
Paraguay	10 083	13 231	5.90	2.13	5	5	-8.06	0.09	5 833	8 332	2.72	2.80
Peru	5	6	0.00	2.26	400	461	21.32	0.88	0	0	..	..
EUROPE	11 171	14 386	14.62	2.34	16 398	16 817	2.52	0.50	4 126	5 545	25.08	3.45
European Union[1]	2 799	3 662	15.01	2.81	13 245	14 076	1.97	0.75	578	364	18.09	0.29
United Kingdom	0	0	..	..	747	758	-1.59	0.00	11	11	18.64	0.00
Russia	3 843	5 199	17.67	1.93	1 910	1 445	10.39	-1.58	755	1 574	122.68	4.68
Ukraine	4 063	4 978	14.99	2.53	4	5	19.37	-0.18	2 775	3 585	22.99	3.31
AFRICA	2 801	3 646	6.37	1.78	4 720	5 673	7.57	0.83	212	218	1.16	-0.37
Egypt	35	42	1.60	1.61	2 727	3 632	6.03	1.28	50	43	15.22	-1.26
Ethiopia	106	124	30.97	1.42	2	2	0.00	-1.10	67	75	410.28	1.11
Nigeria	703	884	1.37	1.93	20	15	-2.17	-1.62	10	11	-0.79	0.71
South Africa	1 203	1 689	11.33	1.67	100	1	26.83	-6.07	4	6	-40.30	0.67
ASIA	29 366	37 136	-0.26	1.69	118 900	138 531	7.95	1.35	816	640	8.22	-0.17
China[2]	14 948	19 496	-0.14	1.65	93 032	108 482	8.11	1.48	233	100	-4.67	0.00
India	12 198	14 905	-0.24	1.75	100	50	91.77	-0.18	281	250	27.49	-0.78
Indonesia	598	742	-5.05	1.78	2 456	3 056	4.87	1.24	2	2	-35.47	-0.12
Iran	202	242	2.01	1.82	2 360	2 682	21.52	0.52	107	112	82.96	-0.52
Japan	246	274	1.36	1.02	3 203	3 011	0.16	-0.26	0	0	..	..
Kazakhstan	248	330	11.27	2.43	10	6	-22.69	-5.38	20	40	0.00	8.34
Korea	88	105	-4.36	0.54	1 267	1 270	0.88	0.32	0	0	..	..
Malaysia	0	0	..	..	813	941	5.51	0.97	23	9	3.03	-0.96
Pakistan	4	5	-9.30	1.73	2 257	3 148	33.32	1.53	0	0	..	..
Philippines	1	1	0.00	1.58	180	353	14.16	1.84	0	0	..	..
Saudi Arabia	0	0	..	..	583	852	23.85	1.39	0	0	..	..
Thailand	44	47	-14.89	1.56	2 825	3 102	6.23	0.83	6	4	-7.25	-0.82
Turkey	148	184	10.93	1.99	2 054	2 002	5.57	0.37	108	90	437.24	-0.37
Viet Nam	117	136	-10.21	1.72	1 558	1 935	24.88	1.57	1	1	-4.89	-0.23
OCEANIA	50	99	0.23	5.04	2	2	-1.42	0.22	6	21	7.13	10.35
Australia	50	99	0.23	5.04	1	1	-2.69	0.45	6	21	7.13	10.35
New Zealand	0	0	..	..	1	1	0.00	0.00	0	0	..	..
DEVELOPED COUNTRIES	**140 918**	**148 815**	**5.35**	**1.58**	**21 678**	**22 031**	**2.24**	**0.44**	**64 348**	**67 713**	**5.79**	**1.40**
DEVELOPING COUNTRIES	**211 920**	**262 186**	**3.72**	**1.59**	**129 146**	**148 194**	**8.27**	**1.35**	**86 446**	**102 512**	**7.01**	**1.11**
LEAST DEVELOPED COUNTRIES (LDC)	810	975	1.96	1.90	1 498	2 212	35.90	2.02	64	66	7.80	-1.56
OECD[3]	**131 791**	**136 907**	**4.91**	**1.54**	**27 247**	**28 924**	**1.99**	**0.73**	**60 897**	**62 589**	**5.29**	**1.23**
BRICS	**148 425**	**182 278**	**5.57**	**1.63**	**95 552**	**110 388**	**8.20**	**1.43**	**69 841**	**81 629**	**12.06**	**1.02**

.. Not available

Note: Marketing year: See Glossary of Terms for definitions. Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

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

Marketing year

	CONSUMPTION (kt)		Growth (%)[4]		DOMESTIC CRUSH (kt)		Growth (%)[4]	
	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**346 981**	**410 923**	**4.53**	**1.50**	**311 794**	**372 450**	**4.59**	**1.58**
NORTH AMERICA	62 088	71 329	2.83	1.15	56 641	65 711	2.55	1.17
Canada	2 669	3 108	4.86	2.79	1 900	2 480	4.81	3.00
United States	59 419	68 221	2.75	1.08	54 740	63 231	2.48	1.10
LATIN AMERICA	105 715	129 878	3.24	1.91	98 862	121 671	3.32	1.93
Argentina	43 495	51 648	3.36	1.46	42 573	50 581	3.45	1.48
Brazil	48 076	61 696	2.40	2.47	42 879	55 411	2.39	2.56
Chile	247	461	3.64	2.18	247	461	3.64	2.18
Colombia	875	1 010	8.08	0.82	872	1 005	8.06	0.83
Mexico	4 562	5 294	3.08	1.50	4 326	5 045	3.25	1.55
Paraguay	4 188	4 883	10.84	1.06	4 036	4 697	11.06	1.03
Peru	418	467	22.48	0.89	417	465	22.49	0.89
EUROPE	23 454	25 697	4.65	0.83	20 935	22 175	4.33	0.84
European Union[1]	15 555	17 413	3.23	1.07	13 542	14 442	2.50	1.12
United Kingdom	736	747	-1.70	0.00	673	655	-1.31	-0.31
Russia	4 904	5 073	12.68	0.15	4 815	4 995	12.47	0.16
Ukraine	1 308	1 397	8.13	0.74	1 182	1 264	8.87	0.78
AFRICA	7 027	9 080	6.93	1.28	6 358	8 215	7.77	1.07
Egypt	2 652	3 626	5.54	1.39	2 652	3 626	5.57	1.39
Ethiopia	40	51	13.92	1.76	21	29	12.61	2.33
Nigeria	713	888	1.26	1.88	500	670	5.65	1.12
South Africa	1 111	1 670	14.64	1.78	1 010	1 518	14.75	1.77
ASIA	148 654	174 859	6.28	1.45	128 961	154 604	6.69	1.63
China[2]	108 980	127 742	7.15	1.55	93 486	112 084	7.52	1.82
India	11 962	14 697	0.03	1.79	10 062	12 493	-0.58	1.76
Indonesia	3 085	3 794	2.45	1.35	2 519	3 147	4.54	1.25
Iran	2 443	2 810	17.56	0.65	2 434	2 796	17.90	0.64
Japan	3 438	3 284	-0.13	-0.44	2 692	2 527	0.99	-0.49
Kazakhstan	238	296	7.30	1.61	124	151	2.68	1.45
Korea	1 347	1 375	0.57	0.34	905	952	0.51	0.56
Malaysia	790	931	5.46	1.01	790	931	5.46	1.01
Pakistan	2 227	3 149	32.69	1.53	2 227	3 149	32.74	1.53
Philippines	180	354	13.50	1.88	180	354	13.87	1.88
Saudi Arabia	582	852	23.80	1.40	582	852	23.80	1.40
Thailand	2 872	3 144	5.41	0.84	2 839	3 144	5.74	0.84
Turkey	2 139	2 092	5.29	0.58	2 096	2 067	5.58	0.57
Viet Nam	1 703	2 066	15.37	1.57	1 616	1 951	19.93	1.55
OCEANIA	43	80	-1.91	3.84	37	74	-2.25	4.23
Australia	42	79	-1.96	3.90	37	74	-2.25	4.23
New Zealand	1	1	0.00	0.00	0	0	..	..
DEVELOPED COUNTRIES	**91 170**	**103 263**	**3.25**	**1.03**	**82 233**	**93 062**	**3.02**	**1.05**
DEVELOPING COUNTRIES	**255 812**	**307 661**	**5.04**	**1.66**	**229 561**	**279 388**	**5.22**	**1.77**
LEAST DEVELOPED COUNTRIES (LDC)	2 240	3 119	14.84	2.09	1 868	2 638	20.38	1.87
OECD[3]	**91 307**	**103 380**	**2.75**	**1.07**	**82 307**	**93 237**	**2.52**	**1.10**
BRICS	**175 032**	**210 878**	**5.24**	**1.79**	**152 251**	**186 500**	**5.36**	**1.98**

.. Not available

Note: Marketing year: See Glossary of Terms for definitions. Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

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 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**152 814**	**177 995**	**3.08**	**1.41**	**20 507**	**23 589**	**4.07**	**1.20**	**21 372**	**23 589**	**4.48**	**1.20**
NORTH AMERICA	24 946	26 379	5.72	1.14	1 016	1 191	1.26	1.20	11 650	12 281	5.37	1.41
Canada	20 478	22 043	6.12	1.32	248	248	-1.67	-0.04	11 017	11 747	5.62	1.53
United States	4 467	4 336	4.23	0.27	768	943	2.62	1.55	633	534	2.11	-0.96
LATIN AMERICA	5 862	8 789	2.33	3.61	1 811	2 305	2.02	1.81	902	1 310	6.11	1.64
Argentina	4 367	6 976	2.67	4.16	1	1	0.00	0.00	694	1 058	7.67	1.86
Brazil	454	583	5.10	2.22	5	5	-10.71	0.00	79	101	8.96	-0.54
Chile	199	237	11.86	1.51	14	10	-4.49	-2.53	9	13	18.68	2.25
Colombia	2	3	0.00	2.25	7	7	0.00	0.48	0	0	..	..
Mexico	111	119	3.08	0.61	1 752	2 255	2.21	1.91	3	4	15.23	0.00
Paraguay	190	223	-3.10	1.54	5	4	0.00	-1.53	32	40	-2.59	1.79
Peru	6	8	0.00	2.02	1	1	0.00	-1.59	0	0	..	..
EUROPE	61 930	73 597	4.03	1.32	4 874	4 193	1.27	-1.51	3 946	4 800	0.95	1.98
European Union[1]	28 174	30 391	1.41	0.64	4 302	3 703	1.62	-1.66	897	638	-1.82	-0.22
United Kingdom	2 074	2 304	-0.42	0.04	281	187	-4.38	-0.19	262	377	2.72	0.07
Russia	13 175	17 659	7.96	2.29	190	202	7.67	-0.13	368	738	9.72	6.61
Ukraine	16 697	20 873	7.78	1.68	33	36	7.47	-0.18	1 943	2 481	0.95	1.64
AFRICA	9 281	11 045	1.81	1.62	493	571	5.63	1.90	203	148	-1.26	-3.18
Egypt	117	140	-0.48	1.50	72	71	5.01	0.19	21	23	6.10	-0.19
Ethiopia	99	120	4.85	1.83	0	0	..	..	0	0	..	..
Nigeria	2 125	2 486	0.29	1.31	4	73	0.00	41.97	42	1	-10.32	-34.41
South Africa	1 015	1 246	3.91	1.63	49	12	-2.69	-8.68	3	3	-19.03	0.94
ASIA	47 335	54 047	1.17	1.33	12 287	15 304	6.07	1.96	2 249	1 923	10.77	-1.56
China[2]	28 603	31 629	1.24	1.03	5 332	7 397	14.72	3.14	649	591	3.18	-0.12
India	11 717	14 275	0.39	1.95	267	308	8.24	-0.54	678	277	10.80	-9.10
Indonesia	637	745	-2.42	1.68	252	243	5.37	-0.73	1	1	-3.81	0.06
Iran	359	426	4.19	0.67	200	282	45.93	2.09	1	1	0.00	-0.18
Japan	23	24	1.46	0.76	2 368	2 407	-0.19	0.08	0	0	..	..
Kazakhstan	1 036	1 266	10.68	1.58	7	7	-0.72	-0.12	468	674	36.99	1.95
Korea	15	15	3.04	0.04	27	27	-1.94	0.07	0	0	..	..
Malaysia	5	6	1.85	1.66	44	49	2.76	1.03	4	3	1.97	-1.02
Pakistan	748	834	-3.41	1.19	1 300	1 529	4.94	1.66	5	5	-28.47	-0.21
Philippines	20	23	0.53	1.42	61	72	2.12	1.53	0	0	..	..
Saudi Arabia	3	4	0.00	3.48	4	4	0.00	-1.07	1	2	0.00	1.08
Thailand	90	102	-0.15	1.31	58	55	4.20	-0.62	4	4	8.16	0.45
Turkey	1 816	2 225	7.71	2.26	706	869	-3.80	1.25	65	45	6.86	-0.91
Viet Nam	330	389	0.76	1.60	174	217	433.26	1.56	35	31	9.41	-1.54
OCEANIA	3 462	4 138	2.53	1.17	26	26	-1.12	0.00	2 422	3 127	2.41	1.25
Australia	3 449	4 125	2.54	1.18	21	21	1.16	0.00	2 421	3 126	2.42	1.25
New Zealand	10	10	0.00	-0.01	5	5	-6.70	0.02	1	1	0.00	0.00
DEVELOPED COUNTRIES	**92 541**	**106 821**	**4.45**	**1.28**	**8 639**	**8 221**	**1.08**	**-0.59**	**18 518**	**20 911**	**4.19**	**1.53**
DEVELOPING COUNTRIES	**60 274**	**71 174**	**1.23**	**1.61**	**11 868**	**15 368**	**6.80**	**2.30**	**2 854**	**2 678**	**6.63**	**-1.05**
LEAST DEVELOPED COUNTRIES (LDC)	6 346	7 317	1.48	1.42	178	370	-5.87	7.36	105	98	5.29	-0.28
OECD[3]	**60 960**	**65 992**	**3.17**	**0.90**	**10 653**	**10 822**	**0.56**	**-0.02**	**15 324**	**16 499**	**4.13**	**1.27**
BRICS	**54 964**	**65 392**	**2.39**	**1.58**	**5 842**	**7 924**	**13.60**	**2.84**	**1 776**	**1 710**	**6.49**	**-0.32**

.. Not available

Note: Marketing year: See Glossary of Terms for definitions. Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

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

Marketing year

	CONSUMPTION (kt)		Growth (%)[4]		DOMESTIC CRUSH (kt)		Growth (%)[4]	
	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**151 943**	**177 960**	**2.96**	**1.41**	**130 822**	**154 675**	**3.27**	**1.46**
NORTH AMERICA	14 211	15 300	5.33	0.90	12 086	13 208	6.03	0.90
Canada	9 654	10 562	6.38	1.01	9 195	10 140	6.46	0.97
United States	4 557	4 738	3.47	0.66	2 890	3 068	4.92	0.66
LATIN AMERICA	6 778	9 782	1.71	3.45	6 325	9 241	1.79	3.56
Argentina	3 678	5 918	1.59	4.64	3 549	5 731	1.58	4.67
Brazil	382	486	4.24	3.12	316	417	3.68	3.58
Chile	206	234	9.54	1.27	186	212	9.34	1.23
Colombia	9	10	0.00	0.92	8	9	0.00	1.14
Mexico	1 860	2 370	2.24	1.84	1 735	2 243	2.73	1.94
Paraguay	163	187	-2.20	1.41	133	150	-2.47	1.25
Peru	7	8	0.00	1.73	3	3	0.00	1.36
EUROPE	62 923	72 989	3.93	1.09	57 751	67 246	3.88	1.13
European Union[1]	31 568	33 455	1.44	0.38	28 376	29 894	0.99	0.38
United Kingdom	2 093	2 112	-0.57	0.01	1 925	1 973	-0.94	0.10
Russia	13 062	17 120	7.68	2.11	12 432	16 255	8.43	2.06
Ukraine	14 791	18 434	8.97	1.68	13 791	17 473	9.43	1.76
AFRICA	9 588	11 466	2.04	1.71	5 844	6 605	2.45	1.10
Egypt	169	187	1.05	1.25	118	132	3.23	1.52
Ethiopia	99	120	4.85	1.83	62	71	8.44	1.15
Nigeria	2 088	2 557	0.69	1.76	733	689	0.68	-1.18
South Africa	1 076	1 253	3.26	1.45	966	1 120	3.25	1.45
ASIA	57 343	67 386	1.78	1.56	47 784	57 408	2.26	1.74
China[2]	33 451	38 433	2.52	1.42	27 157	32 196	3.32	1.71
India	11 096	14 278	0.10	2.27	9 640	12 621	0.13	2.37
Indonesia	889	986	-0.54	1.03	297	349	3.88	1.38
Iran	556	708	10.09	1.22	519	645	10.63	1.00
Japan	2 412	2 432	-0.02	0.09	2 394	2 414	0.04	0.09
Kazakhstan	551	597	3.53	1.14	422	441	3.35	0.93
Korea	42	42	-0.72	0.06	38	38	-0.72	0.06
Malaysia	45	51	2.72	1.26	44	50	2.79	1.23
Pakistan	2 050	2 356	1.52	1.49	1 920	2 197	1.83	1.44
Philippines	80	95	1.66	1.51	68	81	1.89	1.69
Saudi Arabia	6	6	0.00	0.88	5	5	0.00	0.95
Thailand	145	153	1.15	0.59	88	101	2.30	1.39
Turkey	2 461	3 046	3.40	2.03	2 258	2 801	3.00	2.05
Viet Nam	485	575	6.26	1.78	361	436	9.33	1.76
OCEANIA	1 100	1 037	3.63	0.92	1 032	968	3.64	0.98
Australia	1 083	1 019	3.76	0.93	1 021	956	3.68	0.99
New Zealand	14	14	-3.30	0.00	10	10	0.00	0.00
DEVELOPED COUNTRIES	**82 669**	**94 137**	**4.02**	**1.04**	**75 015**	**85 892**	**4.07**	**1.07**
DEVELOPING COUNTRIES	**69 274**	**83 823**	**1.81**	**1.83**	**55 807**	**68 784**	**2.26**	**1.98**
LEAST DEVELOPED COUNTRIES (LDC)	6 418	7 587	1.18	1.67	4 422	5 120	1.28	1.42
OECD[3]	**56 241**	**60 320**	**2.35**	**0.63**	**50 294**	**54 017**	**2.13**	**0.64**
BRICS	**59 067**	**71 570**	**2.97**	**1.76**	**50 511**	**62 609**	**3.64**	**1.94**

Note: Marketing year: See Glossary of Terms for definitions. Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

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 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**342 967**	**407 162**	**3.90**	**1.53**	**90 567**	**107 472**	**3.27**	**1.28**	**91 834**	**107 472**	**3.10**	**1.28**
NORTH AMERICA	56 021	64 021	2.98	1.10	4 546	4 192	5.42	-0.16	17 242	19 372	5.06	0.84
Canada	6 700	7 699	6.06	1.45	855	756	-3.39	0.23	4 911	5 598	8.69	1.33
United States	49 321	56 322	2.63	1.05	3 692	3 436	8.92	-0.24	12 331	13 774	4.00	0.65
LATIN AMERICA	82 364	103 576	3.19	2.01	9 333	12 076	3.13	2.42	51 180	63 261	3.10	1.98
Argentina	35 296	42 652	3.33	1.64	0	0	..	..	31 381	38 267	3.48	1.72
Brazil	34 478	46 072	2.28	2.59	6	6	-22.22	0.00	15 286	20 163	1.16	2.96
Chile	303	487	5.20	1.93	1 112	1 469	3.01	2.96	7	6	-9.99	-1.20
Colombia	833	980	6.38	1.13	1 434	2 203	11.19	3.67	91	63	5.07	-3.54
Mexico	4 697	5 573	3.30	1.57	2 038	2 582	3.18	2.53	116	111	-1.68	0.00
Paraguay	3 233	3 752	10.34	1.03	7	7	0.38	0.17	2 589	2 985	15.72	0.67
Peru	353	396	16.90	0.96	1 332	1 875	7.51	2.85	5	5	0.00	-0.63
EUROPE	44 614	49 230	3.44	0.93	31 313	31 918	1.06	-0.40	9 039	11 564	5.43	1.79
European Union[1]	26 651	27 871	1.58	0.66	26 144	26 786	1.26	-0.59	1 834	1 708	0.67	-0.78
United Kingdom	1 661	1 539	-0.95	-0.03	3 155	3 003	0.20	0.18	160	167	-2.50	-0.31
Russia	8 064	9 551	8.14	1.18	231	88	-12.31	-0.64	1 458	2 380	5.88	5.05
Ukraine	7 063	8 796	9.42	1.64	42	33	-7.89	-0.08	5 188	6 905	8.91	1.76
AFRICA	9 546	10 478	5.63	1.48	5 370	8 198	4.40	2.46	641	642	1.34	-0.63
Egypt	2 213	2 962	4.79	1.15	1 182	1 316	8.79	3.07	11	7	23.42	-0.33
Ethiopia	98	114	11.41	1.54	0	0	..	..	4	1	3.00	-8.90
Nigeria	876	1 011	3.24	0.46	410	614	31.55	2.15	174	145	7.60	-2.11
South Africa	1 270	1 753	9.60	1.67	713	793	-6.62	3.27	22	23	-16.18	-0.96
ASIA	149 323	178 517	4.72	1.58	36 933	47 334	4.74	2.18	13 661	12 519	-0.01	-1.37
China[2]	91 406	109 159	6.06	1.72	2 602	2 980	4.57	-1.91	1 702	1 879	8.41	1.25
India	18 806	23 369	-0.09	1.94	407	621	23.36	5.02	2 723	1 933	-9.86	-4.78
Indonesia	7 511	9 049	5.74	1.25	4 536	5 347	5.73	1.25	4 864	4 511	6.48	-1.23
Iran	2 249	2 609	15.63	0.71	1 671	2 322	-3.51	3.59	27	9	-28.97	-0.73
Japan	3 517	3 397	0.61	-0.27	1 776	1 865	-2.80	0.17	4	4	-0.86	0.00
Kazakhstan	341	380	2.08	1.16	5	5	0.00	-0.34	86	73	-7.50	-0.41
Korea	811	851	0.86	0.49	3 372	3 980	0.64	1.42	60	60	0.77	0.00
Malaysia	3 356	3 874	1.53	1.16	1 549	1 608	4.54	0.17	2 649	2 660	1.58	-0.17
Pakistan	4 406	5 581	4.98	1.45	672	1 846	2.97	13.63	77	43	-10.29	-4.31
Philippines	1 023	1 319	0.95	1.64	2 953	3 915	7.60	2.34	393	338	-4.39	-2.29
Saudi Arabia	463	676	23.12	1.40	1 489	1 733	13.64	1.58	58	49	20.35	-1.56
Thailand	2 714	3 060	6.74	0.99	3 575	5 162	2.57	2.86	13	14	5.28	-0.31
Turkey	3 419	3 957	4.17	1.46	2 153	3 156	9.87	5.08	115	94	8.90	-3.41
Viet Nam	1 501	1 812	16.02	1.58	5 560	7 476	8.42	2.91	42	27	9.31	-1.49
OCEANIA	1 099	1 340	3.52	3.09	3 072	3 755	7.59	1.84	70	115	-7.63	0.68
Australia	964	1 174	4.06	3.27	840	1 057	5.02	2.08	17	64	-15.83	1.49
New Zealand	8	8	0.00	0.00	2 219	2 684	8.77	1.76	0	0	..	..
DEVELOPED COUNTRIES	**108 728**	**122 194**	**3.10**	**1.01**	**42 174**	**43 594**	**1.53**	**-0.04**	**26 428**	**31 112**	**4.99**	**1.18**
DEVELOPING COUNTRIES	**234 238**	**284 968**	**4.29**	**1.76**	**48 393**	**63 878**	**5.00**	**2.29**	**65 405**	**76 360**	**2.42**	**1.32**
LEAST DEVELOPED COUNTRIES (LDC)	4 782	6 225	6.34	1.95	937	1 393	10.77	4.22	359	410	3.11	0.23
OECD[3]	**99 111**	**110 062**	**2.47**	**0.98**	**48 648**	**52 414**	**2.07**	**0.40**	**19 738**	**21 767**	**4.30**	**0.66**
BRICS	**154 025**	**189 904**	**4.37**	**1.92**	**3 958**	**4 488**	**1.22**	**-0.38**	**21 192**	**26 379**	**-0.03**	**2.15**

.. Not available

Note: Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

Table C.20.2. Protein meal projections: Consumption

Marketing year

	CONSUMPTION (kt)		Growth (%)[4]	
	Average 2016-18est	2028	2009-18	2019-28
WORLD	**341 955**	**407 053**	**4.05**	**1.53**
NORTH AMERICA	**43 305**	**48 841**	**2.48**	**1.07**
Canada	2 658	2 857	-0.10	1.34
United States	40 647	45 984	2.67	1.06
LATIN AMERICA	**40 532**	**52 368**	**3.39**	**2.14**
Argentina	3 919	4 384	2.99	0.94
Brazil	19 131	25 915	3.19	2.30
Chile	1 428	1 946	3.77	2.70
Colombia	2 178	3 117	9.52	2.99
Mexico	6 619	8 043	3.40	1.89
Paraguay	664	765	0.96	2.43
Peru	1 680	2 265	9.01	2.50
EUROPE	**66 815**	**69 576**	**2.05**	**0.17**
European Union[1]	50 944	52 949	1.43	0.06
United Kingdom	4 657	4 375	-0.06	0.12
Russia	6 835	7 259	7.73	0.15
Ukraine	1 861	1 919	10.00	1.19
AFRICA	**14 333**	**18 024**	**5.51**	**2.00**
Egypt	3 432	4 270	6.82	1.72
Ethiopia	94	113	11.91	1.73
Nigeria	1 107	1 480	7.89	1.45
South Africa	1 967	2 521	1.78	2.17
ASIA	**172 870**	**213 264**	**5.37**	**1.92**
China[2]	92 227	110 261	6.28	1.61
India	16 576	22 039	2.32	2.91
Indonesia	7 248	9 881	5.67	2.62
Iran	3 887	4 920	5.46	1.97
Japan	5 291	5 258	-0.67	-0.12
Kazakhstan	263	311	8.65	1.53
Korea	4 142	4 771	0.74	1.26
Malaysia	2 247	2 820	3.22	1.94
Pakistan	5 033	7 377	5.18	3.50
Philippines	3 596	4 887	7.21	2.55
Saudi Arabia	1 895	2 359	15.60	1.60
Thailand	6 280	8 205	4.36	2.13
Turkey	5 468	7 005	6.33	3.04
Viet Nam	7 154	9 260	10.12	2.65
OCEANIA	**4 101**	**4 980**	**7.17**	**2.19**
Australia	1 788	2 167	5.47	2.73
New Zealand	2 225	2 692	9.01	1.76
DEVELOPED COUNTRIES	**124 391**	**134 666**	**2.22**	**0.62**
DEVELOPING COUNTRIES	**217 565**	**272 387**	**5.25**	**2.01**
LEAST DEVELOPED COUNTRIES (LDC)	**5 357**	**7 204**	**7.31**	**2.45**
OECD[3]	**128 036**	**140 690**	**2.09**	**0.80**
BRICS	**136 737**	**167 995**	**5.26**	**1.82**

Note: Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

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 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**202 563**	**239 817**	**4.05**	**1.45**	**80 243**	**95 417**	**3.50**	**1.33**	**81 852**	**95 417**	**3.69**	**1.33**
NORTH AMERICA	17 866	19 952	3.79	1.04	4 560	5 100	3.08	0.08	4 669	5 068	1.86	1.63
Canada	4 434	4 815	6.37	1.14	264	184	-3.99	-4.03	3 325	3 604	5.21	1.28
United States	13 432	15 138	3.08	1.00	4 296	4 916	3.69	0.27	1 344	1 463	-3.42	2.55
LATIN AMERICA	27 151	34 550	4.01	2.21	4 859	4 839	2.85	-0.22	11 116	15 307	4.69	2.89
Argentina	9 289	11 738	3.10	2.15	18	18	5.44	0.00	6 111	8 263	3.19	2.40
Brazil	9 312	12 019	2.81	2.37	504	514	1.04	0.00	1 454	2 804	-2.06	7.61
Chile	116	164	6.34	1.70	454	499	6.83	0.68	1	1	-8.45	-0.10
Colombia	1 938	2 506	8.29	2.44	739	716	10.30	-1.11	855	992	21.43	1.12
Mexico	1 924	2 335	3.42	1.65	1 032	1 064	3.61	0.42	66	54	2.24	0.00
Paraguay	784	911	9.37	1.04	13	11	-1.44	-1.02	679	796	16.45	1.03
Peru	249	303	12.14	1.77	563	703	6.30	1.71	1	1	0.00	-0.17
EUROPE	28 390	32 783	3.99	1.11	12 934	12 015	1.96	-1.33	11 357	14 144	9.45	1.81
European Union[1]	14 474	15 277	1.24	0.50	9 668	8 793	1.78	-1.66	2 034	2 161	4.44	0.31
United Kingdom	941	1 016	-0.77	0.04	1 094	1 125	1.14	0.00	214	231	-4.90	-0.82
Russia	5 938	7 604	8.91	1.90	1 070	1 104	4.86	-0.15	2 808	4 011	17.40	3.67
Ukraine	6 406	8 068	9.41	1.73	262	226	-4.61	-1.48	5 960	7 287	10.54	1.50
AFRICA	8 131	9 388	3.67	1.48	11 563	15 819	4.88	2.72	1 312	1 073	-1.34	-2.28
Egypt	561	729	3.88	0.88	2 006	2 622	2.32	2.27	151	107	-9.85	-2.22
Ethiopia	54	62	9.92	1.40	518	896	17.54	5.67	0	0	..	..
Nigeria	1 637	1 799	1.81	0.63	1 449	2 393	6.23	4.83	48	45	-11.51	-2.78
South Africa	555	709	6.09	1.59	843	861	0.86	0.42	25	25	-17.67	-0.37
ASIA	119 638	141 479	4.16	1.40	45 991	57 290	3.76	1.90	52 461	58 746	2.87	0.90
China[2]	28 254	33 857	5.25	1.71	8 706	8 635	-1.03	-1.28	274	246	0.16	0.18
India	8 913	11 055	0.14	2.02	15 186	22 077	7.30	3.67	76	61	-3.04	-0.67
Indonesia	44 592	52 641	6.67	1.22	94	91	0.58	-0.02	30 540	35 104	6.02	1.07
Iran	666	782	13.89	0.79	1 291	1 683	-1.91	3.01	56	12	-19.49	-2.92
Japan	1 508	1 486	0.56	-0.11	882	967	2.02	0.46	1	1	45.72	0.00
Kazakhstan	245	263	2.71	1.03	106	111	0.91	0.02	60	65	22.61	-0.02
Korea	215	225	0.86	0.45	1 122	1 101	4.62	-0.51	5	4	-14.14	0.00
Malaysia	22 311	25 577	1.13	1.20	1 237	1 083	-7.76	-1.06	18 049	20 290	-0.65	1.07
Pakistan	1 997	2 432	1.96	1.43	3 205	4 076	5.38	2.62	91	66	-3.91	-2.48
Philippines	1 744	2 087	-0.12	1.58	1 233	1 466	12.97	1.32	894	757	-2.19	-1.30
Saudi Arabia	107	156	22.69	1.39	769	1 016	12.33	2.00	73	58	19.95	-1.96
Thailand	3 597	4 305	7.67	1.55	305	631	11.37	5.95	520	350	1.29	-5.61
Turkey	1 732	2 131	3.70	1.82	1 434	1 257	5.34	-0.92	510	487	9.00	0.92
Viet Nam	625	755	9.26	1.62	1 007	1 265	5.01	2.04	133	131	-0.95	-2.00
OCEANIA	1 387	1 665	2.68	2.12	337	354	3.98	0.46	937	1 079	3.14	1.34
Australia	524	576	3.88	2.39	204	209	5.20	0.21	193	190	8.00	0.16
New Zealand	5	5	1.17	0.00	100	117	3.60	1.53	0	0	..	..
DEVELOPED COUNTRIES	**50 012**	**56 813**	**3.74**	**1.06**	**19 999**	**19 814**	**2.30**	**-0.73**	**16 331**	**19 512**	**6.58**	**1.73**
DEVELOPING COUNTRIES	**152 551**	**183 004**	**4.15**	**1.57**	**60 244**	**75 603**	**3.93**	**1.95**	**65 521**	**75 905**	**3.07**	**1.23**
LEAST DEVELOPED COUNTRIES (LDC)	3 838	4 744	3.01	1.83	7 417	9 996	7.16	2.88	453	371	3.41	-2.57
OECD[3]	**39 621**	**43 513**	**2.52**	**0.86**	**21 252**	**20 912**	**2.75**	**-0.74**	**7 775**	**8 293**	**2.58**	**1.10**
BRICS	**52 972**	**65 245**	**4.13**	**1.90**	**26 309**	**33 191**	**3.53**	**1.86**	**4 638**	**7 147**	**5.41**	**4.81**

.. Not available

Note: Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

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

Marketing year

	CONSUMPTION (kt)		Growth (%)[4]		FOOD (kg/cap)		Growth (%)[4]	
	Average 2016-18est	2028	2009-18	2019-28	Average 2016-18est	2028	2009-18	2019-28
WORLD	**201 163**	**239 711**	**4.24**	**1.43**	**18.2**	**19.7**	**1.98**	**0.81**
NORTH AMERICA	17 729	19 980	4.04	0.64	39.6	39.2	1.29	0.79
Canada	1 389	1 390	5.98	-0.05	32.3	28.3	2.55	-1.07
United States	16 340	18 591	3.89	0.70	40.4	40.5	1.20	0.95
LATIN AMERICA	20 971	24 076	3.58	1.28	20.1	20.8	0.81	0.58
Argentina	3 197	3 491	3.17	1.57	18.9	21.3	0.12	1.14
Brazil	8 424	9 729	4.17	1.13	25.4	25.3	0.39	0.57
Chile	571	662	6.85	0.91	11.3	13.1	1.40	0.99
Colombia	1 818	2 228	5.43	1.69	20.3	24.8	3.46	1.76
Mexico	2 892	3 345	3.55	1.27	22.4	23.1	2.14	0.24
Paraguay	118	127	-5.74	0.86	16.2	15.3	-6.91	-0.22
Peru	810	1 005	7.77	1.71	9.6	11.4	4.81	1.47
EUROPE	30 193	30 630	1.75	-0.22	24.1	25.1	1.38	0.29
European Union[1]	22 279	21 891	1.31	-0.43	23.7	23.7	0.36	0.20
United Kingdom	1 822	1 910	1.04	0.13	27.5	27.3	0.40	-0.36
Russia	4 254	4 696	5.47	0.14	29.6	33.2	5.39	0.33
Ukraine	704	1 001	-2.75	2.53	11.9	19.5	-3.26	3.61
AFRICA	18 403	24 119	5.07	2.48	9.8	10.5	2.34	0.76
Egypt	2 437	3 240	4.94	2.14	8.1	11.0	2.40	2.46
Ethiopia	572	958	16.63	5.34	5.0	6.8	13.73	3.32
Nigeria	3 029	4 145	4.32	2.91	10.3	11.0	2.24	0.56
South Africa	1 394	1 546	4.20	0.93	13.4	14.0	2.13	0.46
ASIA	113 080	139 967	5.05	1.79	17.5	20.2	2.72	1.23
China[2]	37 206	42 246	4.30	1.03	26.4	29.1	3.76	0.69
India	24 238	33 014	4.45	3.07	11.0	14.9	0.96	3.07
Indonesia	13 574	17 698	8.93	1.51	19.7	25.0	3.97	1.33
Iran	1 875	2 450	3.25	2.26	10.7	12.5	0.12	1.48
Japan	2 368	2 452	1.09	0.11	18.5	19.9	1.18	0.48
Kazakhstan	289	309	0.45	0.83	15.1	14.7	-0.97	-0.01
Korea	1 325	1 322	4.12	-0.35	14.0	13.5	-0.44	-0.63
Malaysia	5 301	6 340	5.04	0.92	27.0	27.8	4.04	-0.39
Pakistan	5 097	6 434	4.21	2.19	20.2	22.1	2.45	0.95
Philippines	2 097	2 793	7.32	2.36	12.7	14.4	6.63	1.35
Saudi Arabia	794	1 111	12.58	2.12	19.2	23.9	9.10	1.14
Thailand	3 410	4 582	9.02	2.91	12.2	16.0	7.16	2.68
Turkey	2 673	2 900	4.32	0.69	24.3	24.5	1.96	0.09
Viet Nam	1 501	1 887	7.55	2.20	2.4	4.3	3.52	5.96
OCEANIA	786	939	2.80	2.39	19.2	20.0	1.35	1.20
Australia	538	595	3.41	2.36	22.0	21.5	1.93	1.24
New Zealand	104	122	3.48	1.46	22.2	23.7	2.40	0.66
DEVELOPED COUNTRIES	**53 877**	**57 086**	**2.51**	**0.19**	**26.4**	**27.1**	**1.34**	**0.53**
DEVELOPING COUNTRIES	**147 287**	**182 625**	**4.94**	**1.85**	**16.2**	**18.1**	**2.36**	**0.98**
LEAST DEVELOPED COUNTRIES (LDC)	10 808	14 358	5.81	2.69	8.7	9.7	2.90	1.14
OECD[3]	**53 239**	**56 109**	**2.62**	**0.19**	**27.1**	**27.3**	**1.10**	**0.46**
BRICS	**75 517**	**91 232**	**4.39**	**1.68**	**19.7**	**22.4**	**2.70**	**1.14**

Note: Average 2016-18est: Data for 2018 are estimated.

1. Refers to all current European Union member States except the United Kingdom.
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 but includes all EU member countries
4. Least-squares growth rate (see glossary).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en

Table C.22. Main policy assumptions for oilseed markets

Marketing year

		Average 2016-18est	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
ARGENTINA												
Export tax[1]												
Soybean	%	29.0	28.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Other oilseeds	%	4.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Soybean meal	%	27.0	28.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Soybean oil	%	27.0	28.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
AUSTRALIA												
Tariffs												
Soybean oil	%	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Rapeseed oil	%	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
CANADA												
Tariffs												
Rapeseed oil	%	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
EUROPEAN UNION[2]												
Voluntary coupled support												
Soybean	mln EUR	86	27	28	29	29	30	31	31	33	34	35
Tariffs												
Soybean oil	%	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Rapeseed oil	%	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
JAPAN												
New output payments												
Soybean	JPY/kg	165.2	150.7	150.7	150.7	150.7	150.7	150.7	150.7	150.7	150.7	150.7
Tariffs												
Soybean oil	JPY/kg	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
Rapeseed oil	JPY/kg	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
KOREA												
Soybean tariff-quota	kt	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032	1 032
In-quota tariff	%	5	5	5	5	5	5	5	5	5	5	5
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	131
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	%	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
Soybean loan rate	USD/t	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7
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	%	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Rapeseed 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	%	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
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	%	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
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 2016-18est: Data for 2018 are estimated.The sources for tariffs and Tariff Rate Quotas are the national questionnaire reply, UNCTAD and WTO.

1. In Argentina, a temporary export tax is applied on all goods from September 4th 2018 until December 31st 2020. A specific export tax of 18% will be added for soybean and soybean products; future decrease envisaged but no fixed schedule.
2. 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%).

Source: OECD/FAO (2019), "OECD-FAO Agricultural Outlook", *OECD Agriculture statistics* (database). doi: dx.doi.org/10.1787/agr-outl-data-en