Food and Agriculture Organization of the United Nations

ISSN 2709-006X [Print]
ISSN 2709-0078 [Online]

FAOSTAT ANALYTICAL BRIEF 62

Agriculture producer prices indices

2017–2021

>> FAO Statistics Division

HIGHLIGHTS

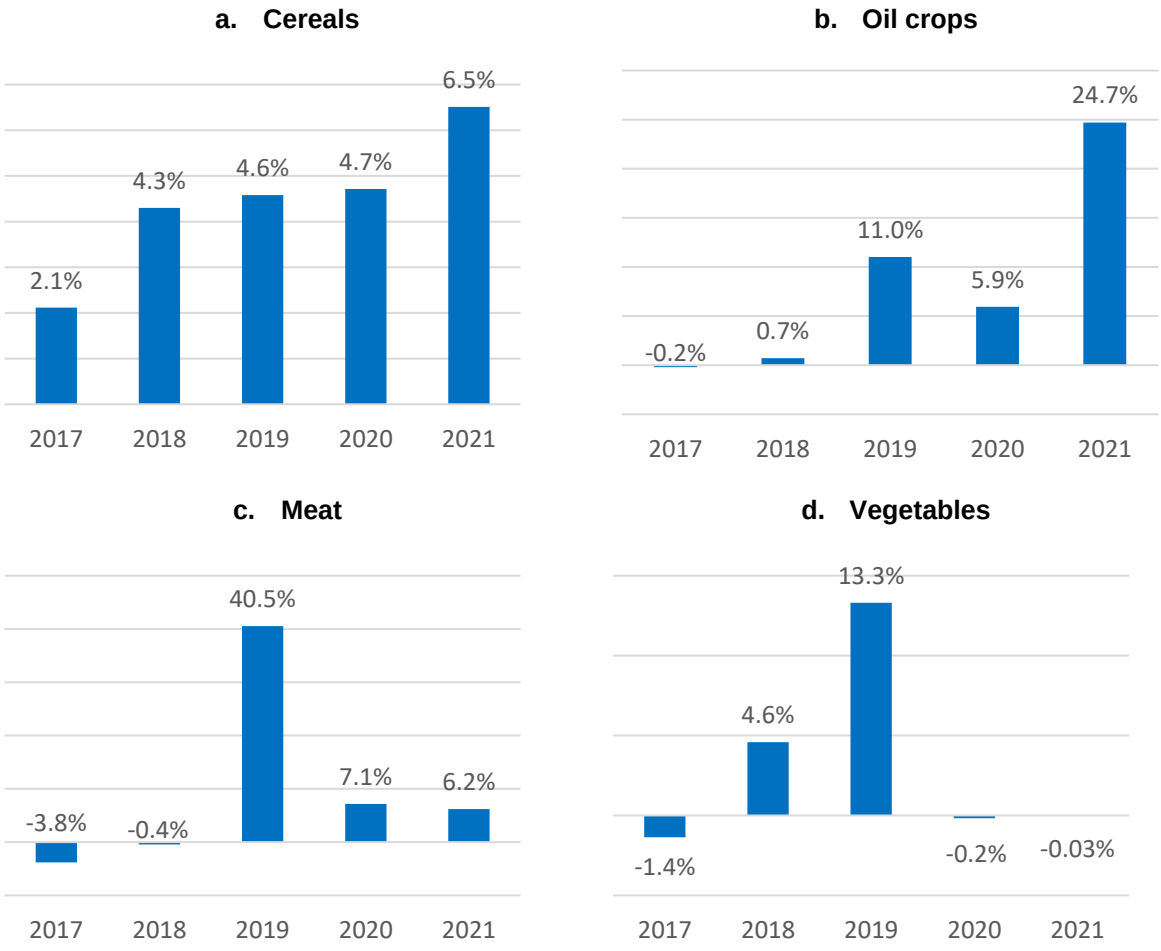
- → **Globally, during the period 2017–2021, producer price indices showed a generalized increasing pattern for cereals, oil crops and meat.**
- → **Surging prices of farm inputs in the major cereal-producing countries, combined with a weather-induced lower production, have led to higher producer prices for cereals.**
- → **For oil crops, the increases were mostly due to the continuing rise in the price of soybeans, sunflower seed and oil palm fruit.**
- → **Higher feed prices caused by the outbreaks of highly pathogenic avian influenza (HPAI) and Africa swine fever (ASF) in major meat-exporting countries led to continued growth in meat producer prices in 2020 and 2021.**

FAOSTAT PRODUCER PRICES

GLOBAL

The global producer price index (PPI) for cereals has been steadily increasing from 2017 to 2020, with a faster growth rate of 6.5 percent in 2021. This rise was mainly caused by a lower availability of cereals in global markets due to reduced harvests in major exporting countries such as Canada, the Russian Federation and the United States of America (FAO, 2021a). From 2019 to 2021, the global PPI for both meat and oil crops shows continued growth, while the PPI for vegetables remains stable after a significant increase in 2019. In 2019, meat products experienced a significant rise of 40.5 percent, largely due to the big drop in pig meat production caused by the outbreak of African swine fever (ASF) in China (Jiang, 2021). In addition, higher feed prices caused by the outbreaks of highly pathogenic avian influenza (HPAI) and ASF in major meat-exporting countries, including those of the European Union (EU), led to continued growth in meat producer prices in 2020 and 2021 (FAO, 2022a). The PPI of oil crops grew at the most rapid pace in 2021, with an increase of 24.7 percent from the previous year, mainly because prolonged dry and hot weather in South America (particularly in Argentina, Brazil and Paraguay) led to a severe reduction in oilseeds production (Ates and Bukowski, 2022).

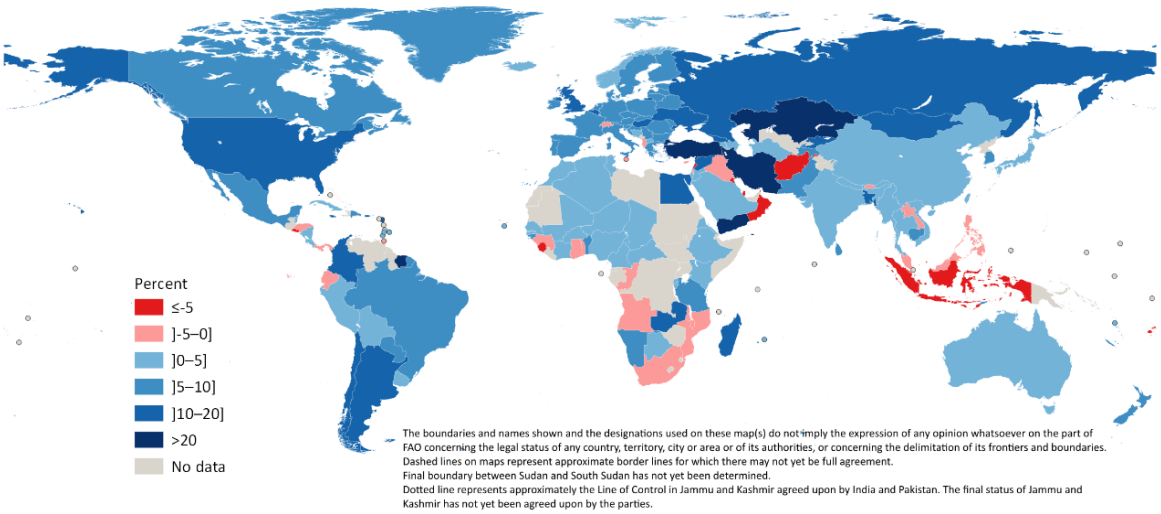
Figure 1: Global annual change rate of the producer price index for cereals, oil crops, meat and vegetables



Source: Based on FAO. 2023. FAOSTAT: Producer prices. In: *FAO*. Rome. Cited March 2023. http://www.fao.org/faostat/en/#data/PP

CEREALS

Figure 2: 2017–2021 average annual change rate of the PPI for cereal products



Note: Average increases over 20 percent are mainly due to general hyperinflation in all economic sectors.

Source: FAO. 2023. FAOSTAT: Producer prices. In: *FAO*. Rome. Cited March 2023. http://www.fao.org/faostat/en/#data/PP based on UN Geospatial. 2020. Map geodata [shapefiles]. New York, USA, UN.

The annual growth rates of PPIs for cereal products increased at the global level from 2017 to 2021, with peaks in South America, Eastern Africa, Eastern Europe, Southern Asia and Western Asia, and large reductions mainly located in South-eastern Asia (Figure 2). The largest average growth rates of the cereals PPI between 2017 and 2021 in Europe occurred in Ukraine (13.2 percent), Hungary (11.9 percent), Belgium (11 percent), the United Kingdom of Great Britain and Northern Ireland, the Russian Federation and Belarus (10 percent each). In 2021, most European countries experienced a significant increase in cereal producer prices, with growth rates of more than 20 percent. The highest growth rate was recorded in Slovenia (47.4 percent), followed by Croatia (45.7 percent) and Hungary (39.3 percent). This large increase was due to the rise in production costs, following a surge in farm input prices in the European Union and major cereal-producing countries (Popescu, Stanciu, Şerban, and Ciocan, 2022). Additionally, a weather-induced reduction in wheat and barley production in 2021 in the Russian Federation (the world's leading cereal exporter) led to a rise in the cereals PPI (FAO, 2022b).

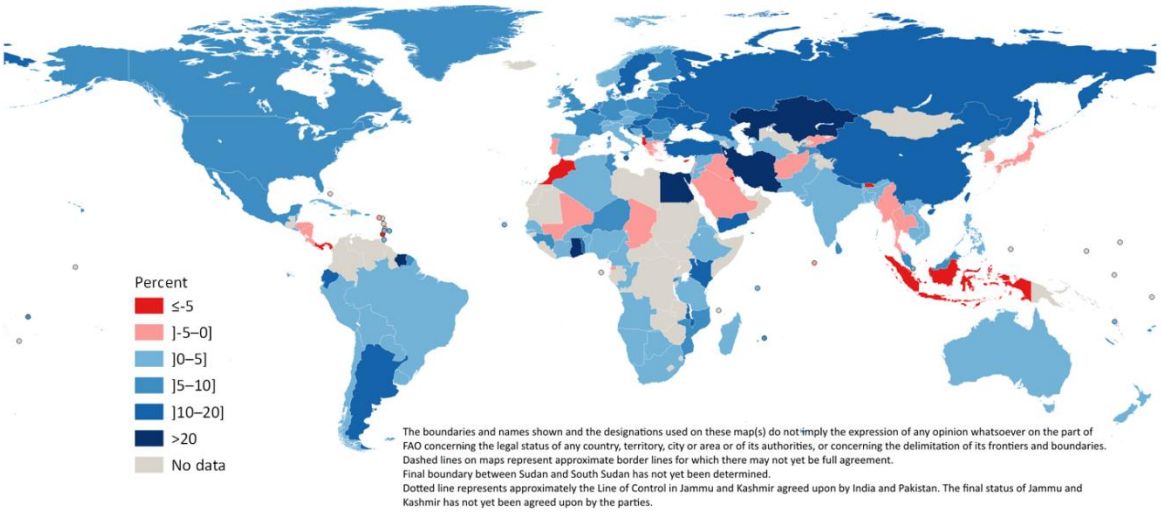
In Latin America, Suriname (42 percent), Argentina (17 percent), Jamaica (15 percent) and Colombia (14 percent) are the main contributors to the annual average increase in the cereals producer prices in 2017–2021. The main cause of the increase in Argentina was the above-normal inflation and the significant devaluation of the Argentine Peso (Alcoba, 2019).

In Africa, especially in Eastern Africa, the COVID-19 restrictions and unfavourable weather conditions, which induced a reduction in cereals production and higher imports, negatively affected the PPIs for cereals. Indeed, in countries such as Burundi and Kenya, the production of maize dropped sharply because of the 2020 dry season and fall armyworm infestations (FAO, 2022c).

In Asia, the larger average annual increases in the PPIs for cereals during the 2017–2021 period were recorded in the Islamic Republic of Iran (35 percent), followed by Yemen (28 percent), Türkiye (21 percent), Kazakhstan (20 percent) and Kyrgyzstan (16 percent).

OIL CROPS

Figure 3: 2017–2021 average annual change rate of the PPI for oil crops



Note: Average increases over 20 percent are mainly due to general hyperinflation in all economic sectors.

Source: FAO. 2023. FAOSTAT: Producer prices. In: *FAO*. Rome. Cited March 2023. http://www.fao.org/faostat/en/#data/PP based on UN Geospatial. 2020. Map geodata [shapefiles]. New York, USA, UN.

The PPI of oil crops increased by 24.7 percent in 2021 (Figure 1b) mainly due to the continuing rise in the price of soybeans, sunflower seed and palm oil fruit, mainly concentrated in Northern America, South America and Eastern Europe. This is linked to reduced production and limited crushing, along with a steady increase in the demand for oil crops meals (FAO, 2021b; Ash and Golden, 2021). As seen in Figure 3, between 2017 and 2021, the PPI oil crops increased in most countries. The top two oil crops exporters have experienced a rapid increase in 2021, with a 15 percent increase in the United States of America and a 38 percent increase in Canada. The sharp increase in the oil crops PPI in Canada resulted from the severe drought in the Canadian Prairies between 2020 and 2021 (Chen and Fernandes, 2021).

In South America, Suriname, Argentina and Ecuador had the largest rise of PPIs for oil crops, with average annual growth rates of 24 percent, 20 percent and 12 percent between 2017 and 2021, respectively. Over the same period, Brazil – the world's largest soybeans producer – has seen an average annual growth rate of 4 percent in its oil crops prices, with a spike of 26 percent in 2020.

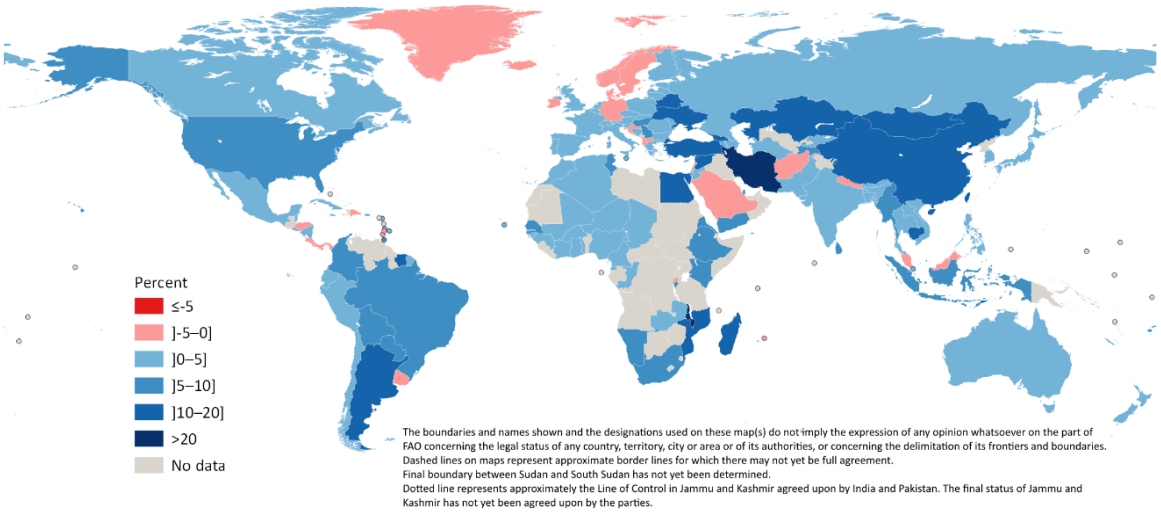
In Africa, strong increases in oil crops PPI were observed in Egypt, Ghana, Malawi and Togo, which all averaged over 10 percent.

In Europe, the year 2021 saw record increases in the oil crops PPI across most of region, especially in Serbia (62 percent), Belarus (57 percent), the Russian Federation (54 percent) and Croatia (52 percent). This large increase was mainly due to the surge in production costs, as prices of fertilizers and plant protection products have soared in the European Union (EFA News, 2023).

In Asia, the largest average increases in the PPI for oil crops between 2017 and 2021 were observed in the Islamic Republic of Iran (31 percent), Kazakhstan (22 percent), and Türkiye (16 percent). Over the same period, Malaysia had the highest average oil crops PPI increase (10 percent) in South-eastern Asia, mainly driven by the huge increase in the oil palm fruit producer prices in both 2020 and 2021. Palm oil output in Malaysia, the world's second-largest producer, has shrunk dramatically due to severe labour shortages since 2020 (Chu, 2022).

MEAT

Figure 4: 2017–2021 average annual change rate of the PPI for meat products



Note: Average increases over 20 percent are mainly due to general hyperinflation in all economic sectors.

Source: FAO. 2023. FAOSTAT: Producer prices. In: *FAO*. Rome. Cited March 2023. http://www.fao.org/faostat/en/#data/PP based on UN Geospatial. 2020. Map geodata [shapefiles]. New York, USA, UN.

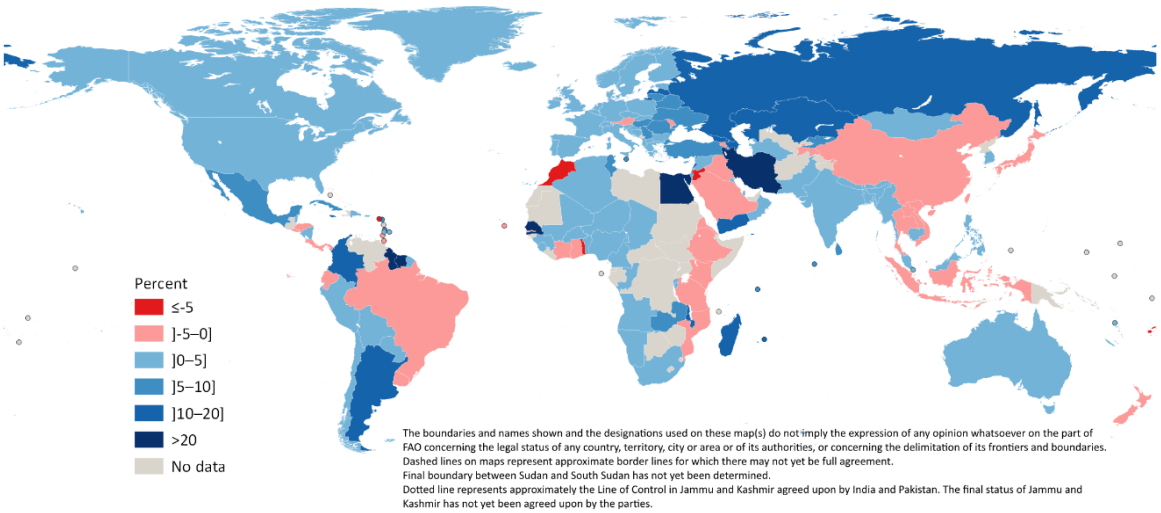
The PPI for meat peaked in 2019 (40.5 percent) mainly due to the 113 percent increase in meat prices in China (Figure 1c), resulting from the ASF outbreak in 2018, which killed large numbers of pigs and resulted in a significant increase in pork imports to meet the demand (Jiang, 2021). In 2020 and 2021, China's recovery from ASF led to an increase in meat production and a stabilization in the growth of the PPI. However, the continued impact of the ASF and HPAI outbreaks in Europe and Asia, as well as the increased input costs, mainly feed, fertilizer and energy, pushed up the global meat PPI in 2020 by 7 percent and in 2021 by 6 percent (FAO, 2021c).

The PPI for meat increased in most countries between 2017 and 2021 (Figure 4). In Asia, the Islamic Republic of Iran had the highest average PPI increase (30 percent), followed by Georgia (18 percent). In Europe, the largest growth was recorded in Belarus and Ukraine, at 14 percent and 12 percent

respectively. In the Americas and Africa, the highest increases were observed in Suriname (19 percent) and Malawi (25 percent), respectively.

VEGETABLES

Figure 5: 2017–2021 average annual change rate of the PPI for vegetable products



Note: Average increases over 20 percent are mainly due to general hyperinflation in all economic sectors.

Source: FAO. 2023. FAOSTAT: Producer prices. In: *FAO*. Rome. Cited March 2023. http://www.fao.org/faostat/en/#data/PP based on UN Geospatial. 2020. Map geodata [shapefiles]. New York, USA, UN.

The global PPI for vegetables increased significantly between 2017 and 2019 and remained stable in 2020 and 2021. Even though, many European countries saw significant increases in producer prices in 2021, such as Spain (the leading vegetables producer in Europe), which saw an 8 percent increase. The COVID-19 pandemic affected the production of fresh produce in Europe, as the movement of seasonal workers was restricted. It also constrained domestic and international trade and changed demand patterns, pushing up demand (FAO, 2021a).

At the country level, the largest average increases over the 2017–2021 period were observed in the Islamic Republic of Iran (46 percent), Egypt (31 percent), Guyana (29 percent), Suriname (27 percent) and Senegal (26 percent). The largest decrease was observed in Fiji (-11 percent).

NEXT RELEASE

Country agriculture producer price indices are updated in FAOSTAT on an annual basis. The next release presenting global and regional trends will be in December 2023.

REFERENCES

Alcoba, N. 2019. Food prices soar in Argentina as peso devalues. *Al Jazeera*. 19 August 2019. Doha. Cited March 2023. https://www.aljazeera.com/economy/2019/8/19/food-prices-soar-in-argentina-as-peso-devalues

Ash, M. & Golden, D. 2021. *Oil Crops Outlook: January 2021.* U.S. Department of Agriculture, Economic Research Service. https://www.ers.usda.gov/webdocs/outlooks/100218/ocs-21a.pdf

Ates, A.M. & Bukowski, M. 2022. *Oil Crops Outlook: January 2022.* U.S. Department of Agriculture, Economic Research Service.https://www.ers.usda.gov/webdocs/outlooks/103026/ocs-22a.pdf

Chen, J. & Fernandes, A. 2021. Drought in Canada Hits Farmers and Crop Insures. In: *Verisk*. Cited March 2023. https://www.air-worldwide.com/blog/posts/2021/9/drought-canada-farmers-crop-insurers/

Chu, M.M. 2022. Labour shortages set up Malaysia for third year of palm oil losses. In: *Reuters*. Cited March 2023. https://www.reuters.com/markets/commodities/labour-shortages-set-up-malaysia-third-year-palm-oil-losses-2022-09-07/

EFA News. 2023. Increase the price of agricultural goods in the EU. *EFA News*, 16 January 2023. Rome. Cited March 2023. https://www.efanews.eu/item/28463-increase-the-price-of-agricultural-goods-in-the-eu.html

FAO. 2021a. *Food Outlook – Biannual Report on Global Food Markets.* Food Outlook, November 2021. https://doi.org/10.4060/cb7491en

FAO. 2021b. *Food Outlook – Biannual Report on Global Food Markets.* Food Outlook, November 2021. https://doi.org/10.4060/cb7491en

FAO. 2021c. *Meat Market Review 2021.* https://www.fao.org/documents/card/en/c/CC0984EN/

FAO. 2022a. *Food Outlook – Biannual Report on Global Food Markets*. Food Outlook, June 2022. https://www.fao.org/documents/card/en/c/cb9427en

FAO. 2022b. *GIEWS Country Brief: The Russian Federation, 21 January 2022.* https://reliefweb.int/report/russian-federation/giews-country-brief-russian-federation-21-january-2022

FAO. 2022c. *FPMA Bulletin #1, 10 February 2022*. https://www.fao.org/3/cb8622en/cb8622en.pdf

Jiang, H. 2021. China: Evolving Demand in the World's Largest Agricultural Import Market. In: *U.S. Department of Agriculture*. Washington, D.C. Cited March 2023. https://www.fas.usda.gov/data/china-evolving-demand-world-s-largest-agricultural-import-market

Popescu, A., Stanciu, M., Şerban, V. & Ciocan, H.N. 2022. Cereals production and price in the European Union. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development. Vol. 22*, Issue 4, 2022. https://managementjournal.usamv.ro/pdf/vol.22_4/Art62.pdf

This analytical brief was prepared by Xinman Liu and Jean Marie Vianney Munyeshyaka under the supervision of Veronica Boero, team leader of the Social and Economic Statistics Team, FAO Statistics Division.

Required citation: FAO. 2023. *Agriculture producer prices indices. 2017–2021.* FAOSTAT Analytical Brief Series No 62. Rome. https://doi.org/10.4060/cc4986en

Cover photo: ©FAO/Fredrik Lerneryd

CONTACTS

Statistics – Economic and Social Development
statistics@fao.org
http://www.fao.org/food-agriculture-statistics/en/
Food and Agriculture Organization of the United Nations
Rome, Italy

CC4986EN/1/03.23