

Regional outlook: North America

The regional briefs in the *Outlook* highlight broad trends for the regions defined by the FAO in the implementation of its global workplan. Recognising regional diversity, the intention is not to compare results across regions. Instead, they illustrate some of the latest regional developments, highlighting responses to global challenges and emerging trends, and relating these to the main messages of the *Outlook*. The assessments generally compare the end point of the *Outlook*'s projection (2033) to the base period of 2021-23.

Agrifood systems globally have navigated multiple disruptions in recent years, including the COVID-19 pandemic, the impact of Russia's war against Ukraine, weather related supply fluctuations in several regions, surging energy prices, a cost-of-living crisis and spiralling inflation. The sharp rise in food prices impacted the cost and affordability of healthy diets as well as food security in several regions. Differences in resource endowments, economic structure, development and income levels mean that the magnitude of these impacts are not uniform in all regions. These briefs do not present a quantitative assessment of the impacts of these disruptions, though they do account for the latest expectations with respect to macro-economic developments as the world emerges from them. The trends and issues presented are those expected to underpin the *Outlook* in the medium term. They assume that the adverse effects on food, feed and fuel production, consumption and trade will gradually moderate, recognising that several uncertainties remain.

This chapter contains seven sections, with text, tabular and graphic information for each region following a similar template. A background section provides the key regional characteristics and provides the setting from which the projection is described in the subsequent sections for production, consumption, and trade. Each regional brief contains an annex providing common charts and tables outlining the key aspects for the region concerned.

Background

Productive and resilient agro-food sector contributes substantially to global output

The North American region comprises just two countries – the United States and Canada – whose 377 million people constitute 4.7% of the world's population. Growth of only 0.5% p.a. suggests that this share could decline somewhat by 2033. By contrast, it accounts for 10% of land used for agriculture globally and the availability of agricultural land per capita is the highest amongst all regions included in the *Outlook*. This enables a substantial contribution to global agriculture where it provides 10% of global output and accounts for 12% of global trade. Its agricultural trade surplus is the third largest among all regions, after Latin America and South and Southeast Asia, but it has halved over the past decade and is expected to diminish over the *Outlook* period on the back of slower production growth.

Agriculture in the region is capital intensive and highly productive. Large, commercially orientated farming enterprises deliver impressive yields using top end technology in input intensive production systems. Fertiliser application rates per hectare of cropland are high although they declined substantially in 2022 due to the sharp increase in costs which diminished producer margins. Use recovered in 2023 when prices normalised but application rates remain below the levels observed in the decade prior to 2022, reflecting investments in optimising efficiency. While application rates are expected to rise steadily over the coming decade, they will only marginally exceed 2021 levels by 2033 and efficiency gains are such that fertiliser use per calorie produced will decline further.

Both the United States and Canada are highly developed, mature and diverse economies where agriculture, forestry and fisheries constitutes less than 2% of total GDP. Per capita income is the highest among the regions covered in this chapter, at USD 57 300 in constant 2010 terms and is expected to rise by a further 15% by 2033. More than 80% of the population already resides in urban areas with little change expected by 2033. This high income, mostly urban consumer base has the highest per capita food intake of all regions. The share of total income devoted to food is also the lowest. This suggests that consumer preferences could play a bigger role than income growth in the evolution of food demand. Consumption is proportionately high in animal products, which comprise almost 30% of total calories and 69% of total protein intake compared to the global average of 19% and 43% respectively. Diets are also high in sweeteners and especially vegetable oil, where calorie shares are almost double the global average. This dietary composition and typical lifestyles in the region have led to higher incidence of obesity and food related chronic diseases such as diabetes, although the COVID-19 pandemic heightened awareness of healthy eating habits. This could have a lasting impact on consumer preferences and total calorie intake is expected to decline by 2033, along with the share of sweeteners and vegetable oil in it.

In line with its level of economic development and already high levels of calorie intake, non-food uses of agricultural commodities, such as biofuel and animal feed, have grown faster than food demand over the past decade (Figure 1). Furthermore, food consumption behaviour of the region's mature consumer base is less sensitive to fluctuations in spending power than in lower income region, and total calorie intake remained fairly stable over the past five years despite disruptions such as the COVID-19 pandemic, the energy crisis, and the cost-of-living crisis. Nevertheless, such disruptions had a profound impact on the composition and distribution of food sales. Expenditure on food away from home declined while retail sales surged, prompting significant changes in the food supply chain to accommodate changes in both food types and packaging size requirements. Weersink et al. (2021^[9]) note that despite the time required to adapt to the changes, the enhancements to the supply chain have bolstered its resilience to potential future shocks.

Despite high average levels of income and food intake, the region is not immune to food security concerns amongst the lower echelons of its income distribution. Even prior to the COVID-19 pandemic, 10-13% of the region's population was estimated to experience food insecurity (Tarasuk and Mitchell, 2020^[10]). Despite the mitigating effects of income support measures, the prevalence of moderate to severe food

insecurity increased for the first time in 2020 but the recovery was swift despite high food price inflation that rose to more than 10% in 2022 having been close to zero for the five years preceding 2020. The recovery benefitted from significant expenditure on long standing policies to address food cost burdens on the poor, which were complemented by actions such as the Inflation Reduction Act which supports programs to reduce energy costs.

Economic growth also recovered quickly from the pandemic-induced recession in 2020 but momentum was lost quickly as the start of Russia's war against Ukraine and the associated energy crisis ushered in the cycle of higher inflation that induced significant monetary tightening. Consequently, growth in per capita GDP has been below 2% since 2022 and is expected to bottom out at 0.9% in 2024. A key factor that contributed to consistently positive growth despite global disruptions was the strength and resilience of the labour market. While high labour costs and tight labour supply do contribute to inflation, wage increases have been faster and with inflation now moderating, medium term growth in per capita GDP is expected to average 1.3% p.a. towards 2033.

The agriculture sector in North America is mature, productive, and resilient, contributing substantially to global production and exports of several products. Its ability to ramp up production has been critical to the moderation in agricultural commodity prices despite Russia's war against Ukraine that has reduced production and exports from the Black Sea region. Nevertheless, it also faces challenges. Evidence suggests that its impressive historic productivity growth has slowed in the past decade (Fuglie, 2018^[11]), agricultural commodity prices have declined faster than major input costs, and as environmental costs continue to rise, competitiveness may be eroded in the future. Climate change means that the frequency and intensity of extreme weather events are increasing, as evidenced by widespread drought that has affected cattle numbers and crop production and the wildfires, storms and tornadoes that can cause significant damage to production infrastructure. The greater recognition of such risks means that policies are increasingly driven to not only reduce carbon emissions but also, as with the Sustainable Canadian Agricultural Partnership, to promote greater resilience among producers to manage climate risks.

Production

Productivity based crop production driving growth

Growth in agricultural and fish production in North America is expected to persist but the expected expansion of 12% by 2033 is indicative of slower growth than in the past. This slowdown reflects the expectation that most prices will continue to moderate, returning to a declining trend in real terms. The relative strength of the United States Dollar also suggests that other regions, such as Latin America, may become relatively more competitive. Livestock's contribution to total agricultural value is comparatively high in the global context but the projected expansion in crop production over the coming decade is larger. This reverses the trend observed over the past decade and reflects the impact of high feed prices in the base period which leads to a short-term decline in livestock production before growth resumes from 2025 onwards. Consequently, by 2033, livestock's share in total output will decline marginally to 45% while the share of fisheries remains stable at 5%, leaving crop production accounting for half of total value.

Agricultural land use has stabilised over the past decade with a consistent share of 37% dedicated to crop production. While little change is expected in total agricultural land use by 2033, some reallocation may occur as just over 3 Mha is repurposed from crop production to pasture, mainly in the United States. Despite the decline in cropland, the total value of crop production is expected to rise by 15%. Almost three quarters of this growth will be from the United States, where the value of crop production per hectare is expected to rise by 16% over the ten year period. In Canada, the increase is even more pronounced at 29% although its crop sector is significantly smaller than that of the United States and by 2033 it will account for 16% of the region's crops.

Value gains in crop production represent a combination of intensification, yield gains and crop mix changes. The decline in area harvested, at 2.3 Mha, is less than the decline in land use, reflecting some additional double cropping. Amongst the major crops produced in the region, maize, wheat, cotton, pulses and rapeseed areas are expected to expand at the expense of soybeans and barley. The expansion in cotton and pulses area is the fastest but by 2033 the combination of the maize, wheat and soybeans, where growth is from a much larger base, will account for almost 60% of total crop area. Yield gains are expected to remain robust across all commodities, ranging from 0.5% p.a. for maize, to 0.8% p.a. for wheat and 1.3% p.a. for cotton. The range of growth rates also reflects differences in the base period. Maize yields already averaged almost 11 tonnes per hectare between 2021 and 2023 – 85% above the global average. Conversely, for wheat and barley, yields were significantly reduced in 2021 and 2023, due to inclement weather conditions, particularly in Canada, and so gains over the *Outlook* period carry an element of recovery. Yield gains reflect continuous evolution of production technologies which, along with more efficient management practices could also improve resilience to climate shocks.

North America's meat production systems are highly intensive, enabling the region to supply 13% of the global value of livestock production with only 10% of the animal inventory. In the case of ruminants, it accounts for less than 3% of global inventories. The intensive nature of production systems means that feed is a major cost driver and so the cycle of high feed material prices over the past three years has brought profitability under extreme pressure. It followed an already severe impact from the pandemic-induced lockdown which resulted in capacity and labour constraints at abattoir and processing facilities that pushed meat prices down. The persistence of high labour and energy costs has also driven up costs beyond the farmgate. Consequently, pork production declined through 2021 and 2022 while poultry production growth stalled. Owing to a longer production cycle, beef production did not decline until 2023 but this downward cycle is expected to persist to 2025 whereas modest gains are projected from 2024 in the pork and poultry sectors. Poultry, with its rapid production cycle, may have shown more of a recovery in 2023 had it not been for the impact of widespread Highly Pathogenic Avian Influenza. Over the medium term, the region's total meat production is expected to expand by only 7%, with more than 90% attributed to the United States. Growth rates are fastest for beef production, which is expected to recover from the short term decline to grow by 1.4% p.a. on average over the ten year *Outlook*, while poultry and pork production are expected to rise by 0.8% p.a. and 0.4% p.a. respectively. Across all livestock subsectors, production gains outpace inventory expansion, reflecting the impact of productivity gains.

Milk production growth is expected to exceed that of meat and could expand by 13% by 2033 relative to the 2021-23 base period. The United States is expected to account for almost 85% of this increase. These gains are derived predominantly from increased milk yields which are already higher in North America than any other region. Cow inventories are only expected to rise by 1.5% in the United States while Canada's dairy cow herd could contract by almost 1%. By 2033, milk yields in the United States and Canada are expected to rise by 10% and 21% respectively. This implies that yields in Canada will be more than five times the global average. Consumer preferences dictate that an increasing share of total milk production is expected to be processed into products such as cheese, butter, and milk powders, with less going to fluid milk.

Fisheries is a much smaller sector in North America than crops and livestock, and comprises mainly capture fisheries. By 2033, capture fisheries are expected to expand by 5% relative to the 2021-23 base period. This rate is similar to aquaculture although aquaculture starts from a much smaller base, accounting for only 11% of total production. Production over the coming decade will be significantly impacted by environmental regulations. At present, 84% of total production comes from the United States but growth in Canada is slightly faster and by 2033, Canada is expected to supply 17% of the region's fish.

The North American region is responsible for 7% of direct agriculture related GHG emissions globally – less than its share in global output. Total agricultural emissions are expected to rise by 4% over the coming decade, significantly less than in the past decade. Policy actions such as carbon pricing in Canada are

expected to contribute to the slowdown. The total emissions per unit of output value is expected to decline further. Additional emissions emanate mainly from crop production, increasing by 9.6% by 2033 compared to the 2021-23 base period, compared to 2% from livestock production. This year's *Outlook* features a scenario that simulates the impact of halving food losses along supply chains and food waste at the retail and consumer levels by 2030 (SDG 12.3). The scenario projects that total agricultural emissions in the region could be reduced by 3.5% relative to the baseline, while calorie intake improves. This implies that by 2030, agricultural GHG emissions could increase by only 0.2% from the average level in the 2021-23 base period.

Consumption

Changing consumer preferences to dictate demand prospects

The advanced economies of the United States and Canada boast mature, affluent consumer bases, with food expenditures accounting on average for a mere 6% of total household expenditure. This implies that the fluctuations in food prices, which includes a run to double digit food price inflation in 2022 and continued moderation in food prices over the *Outlook* period, have less influence on food demand patterns than in many other regions. With a comparatively smaller effect from economic considerations, medium term demand prospects will reflect substantial influence from the preferences of these consumers. Anticipated shifts in these preferences revolve largely around an increased emphasis on healthy dietary practices, a trend accentuated by the COVID-19 pandemic, and a growing consciousness of environmental sustainability, particularly among younger demographics. Such a transition is poised to impact not only the overall quantity of calories consumed but also its composition.

Total calories available for consumption, which includes substantial household waste, is the highest in the world. An expected decline of 62 kcal/person/day by 2033 will bring availability to 3 750 kcal/person/day. Correcting for current estimates of household waste would bring caloric intake down to 3 385 kcal/person/day, still 28% above the world average. This represents a substantial reduction from the 2021-23 base period when total calorie intake in North America was 27% more than the global average. The reduction in calorie intake is underpinned by the United States, as calorie availability in Canada is expected to increase. Nevertheless, total calorie availability in Canada will still be lower than in the United States by 2033. Considering the composition of diets, the heightened focus on health may induce a shift to include more fresh produce, with fruit and vegetable consumption per capita expected to rise by 15% and 4% respectively by 2033. Consumption of pulses, which are perceived as healthy alternatives, could expand by 28% but from a small base and by 2033, absolute levels will still only reach half of the global average. Conversely, reduced intake per capita is expected by 2033 for vegetable oil (-9.5%), sweeteners (-1.5%) and cereals (-1.1%). Despite the decline, vegetable oil and sweetener consumption per capita will continue to exceed global averages by 130% and 38% respectively.

Protein intake in North America is expected to rise by just 1.5%, or 1.9g/person/day by 2033, to reach 123g/person/day – still more than 40% above the global average. This is derived primarily from animal sources, as protein from plant-based sources remains fairly stable, with reduced cereal intake offsetting a 15% increase in protein from pulses. Meat consumption per capita is expected to remain fairly stable, rising by just 0.9% over the ten year period. Increased intake of poultry and pig meat products, combined with reductions in bovine and ovine meat consumption, results in a 1.5% increase in protein intake from meat products. An increase of 1.8% in protein derived from dairy products reflects increased consumption per capita on a dry matter basis with gains of 11% and 9% in cheese and butter consumption more than offsetting a decline in milk powder intake. Per capita consumption of fish products is also expected to rise, to reach 10 kg per capita by 2033, a gain of just 3.5% compared to 2021-23.

The intensity of livestock production systems in the regions means that feed use is already high. The region is responsible for 15% of global feed use and calories dedicated to animal feed already exceed those

consumed as food (Figure 1). With poultry and pork production accounting for 85% of the growth in meat production, feed use is also set to rise further and by 2033 could be 7% more than in the base period. Maize and protein meal already represent the primary feed ingredients and their share in total ration composition is set to rise further since 85% of additional feed use will comprise these two commodities. By 2033, the share of maize in total feed use is expected to reach 53%, with a further 17% attributed to protein meal.

North America's industrial use of agricultural products is high in the global context with the United States being the biggest producer of biofuel globally, accounting for 38% of global output. Biofuel production is also an important market for feed grains, accounting for more calories than food in the base period (Figure 1). Biofuel use in the United States is governed by the Renewable Fuel Standard. Presently, ethanol derived from maize feedstocks accounts for 82% of total biofuel used in the region but growth of 16% over the coming decade is mainly driven by biodiesel, reflecting increased renewable fuel targets and biomass-based diesel tax credits. Along with the continuous drive to improve sustainability, the recent energy crisis and subsequent imposition of the Inflation Reduction Act provided additional impetus to growth in biofuel use. However, ethanol markets are constrained by limitations in infrastructure and technology that limit large scale expansion in E15 blending and results in most gasoline still being blended at E10 levels. Apart from its own use, the United States also exports significant quantities of ethanol to Canada where clean fuel regulations and carbon pricing policies are expected to drive substantial growth in biofuel use, primarily driven by higher blend rates.

Trade

Trade surplus to diminish

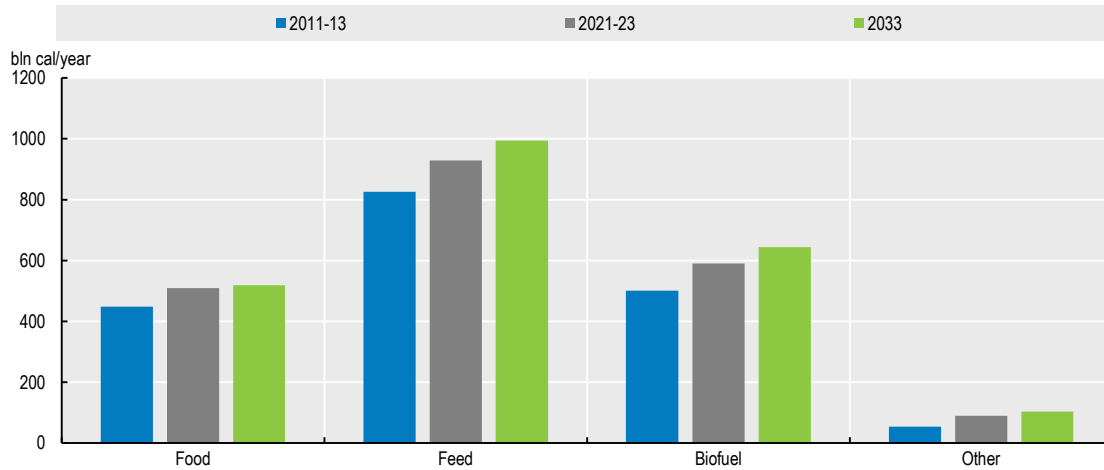
Over the past decade, North America's trade surplus in major agricultural and food commodities has halved and by 2033 is expected to diminish to almost zero. This transition emanates from growth of 19% in the value of imports compared to just 13% growth in the value of exports by 2033 relative to the 2021-23 base period. It is most pronounced in the United States where the magnitude of import expansion, at 22% over the next ten years, is more than double that of exports, which only rise by 10%. In Canada, the converse is true: the expansion in exports, at 20% by 2033 relative to the base period, is more than double that of imports which expand by 9%. However, the relative magnitudes of the two countries' trade means that the regional trend mirrors that of the United States.

Amongst the factors contributing to the marked deceleration in export growth from the United States, is the slowdown in global demand, particularly in China. Historically, China was the biggest export destination for the United States but in 2023, was overtaken by Canada with Mexico in third position. Such trends reflect the influence of the the United States-Mexico-Canada (USMCA) Agreement. With increased competition from Latin America and Chinese import demand projected to slow markedly due to a combination of weaker economic growth and a declining population, expansion of trade to Canada and Mexico could present the biggest opportunity. This will also affect the export product mix as almost half of China's agricultural imports from the United States are soybeans whereas Canada and Mexico's import mix is more diverse. Consequently, soybean exports are expected to decline by 4% over the next ten years and by 2033 soybean's share in total agricultural exports from the United States could decline.

While North America's share in global soybean exports is set to decline from 34% in the base period to 31% by 2033, its prominence in global trade is set to rise for several other products, such as wheat, maize, protein meal, pork, milk powder and ethanol. In the case of cereals such as wheat and maize, this partly reflects the impacts of Russia's war against Ukraine which reduced exports from the Black Sea region but the United States' ability to ramp up exports has been a key factor contributing to moderating prices. This increasing prominence also implies that import demand for its products, particularly from North Africa and the Near East, may come under pressure in the short term due to conflict in the Red Sea which is causing delays in shipping times and subsequent increases in shipping rates. The extent of this impact will be highly dependent on how long the disruptions persist but following the COVID-19 pandemic, large-scale shipping cost increases resulting from container shortages reduced trade volumes across the world, including from North America. The impact of conflict in the Red Sea and Black Sea is compounded by the reduced volumes through the Panama Canal as a result of ongoing drought. Persistence of such delays have the potential to increase shipping times and subsequently also rates on routes from the United States East coast to Asia. Through the first quarter of 2024, rail freight rates in the United States also increased with greater volumes when diversion of Asian traffic through the Suez Canal was no longer a viable strategy to mitigate delays in the Panama Canal.

Despite its trade surplus and prolific role in global exports, the North American region is also a significant and growing importer of several products. These include fresh produce, fish and vegetable oil, where imports are expected to rise by 27%, 9% and 11% respectively. While meat import volumes are expected to decline on the back of reduced consumption, they remain significant and by 2033, the North American region will still account for 15% of global bovine meat imports. Its share of global fish imports is expected to rise to 16%.

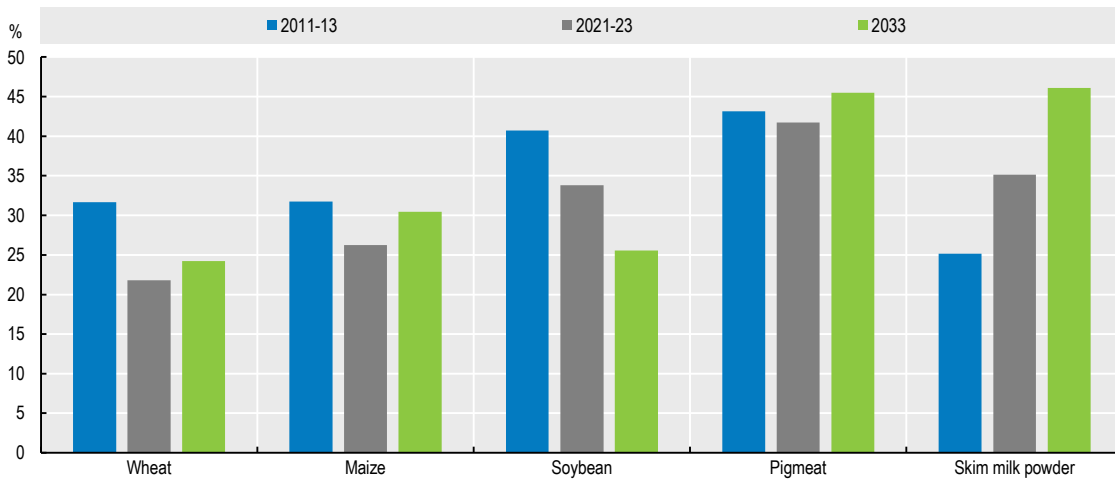
Figure 1. Calories used in food, feed and other use in North America



Note: Estimates are based on historical time series from the FAOSTAT Food Balance Sheets database which are extended with the *Outlook* database. Products not covered in the *Outlook* are extended by trends.

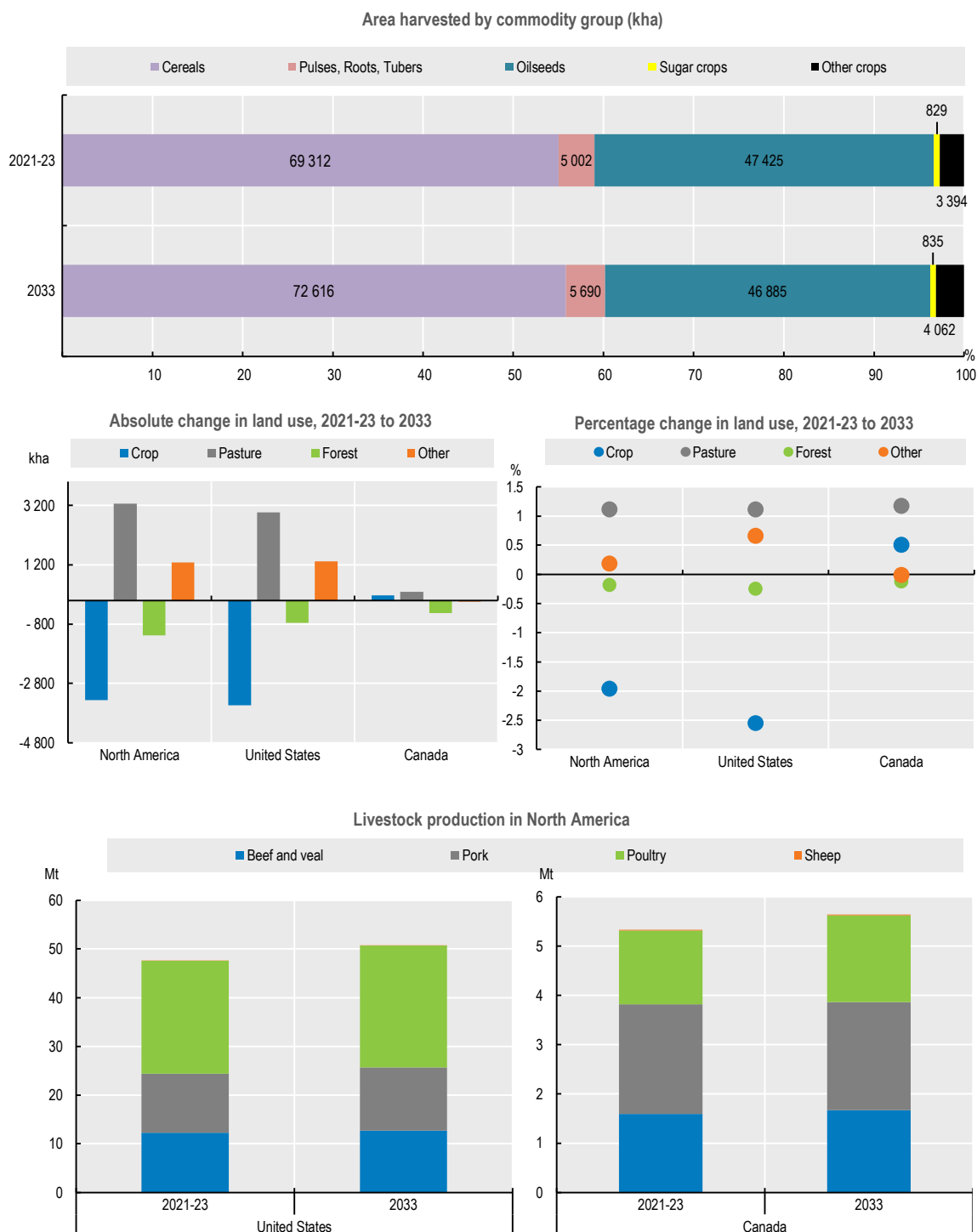
Source: FAO (2024). FAOSTAT Food Balances Database, <http://www.fao.org/faostat/en/#data/FBS>; OECD/FAO (2024) "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

Figure 2. Trends in export market shares of selected commodities of North America



Source: OECD/FAO (2024), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

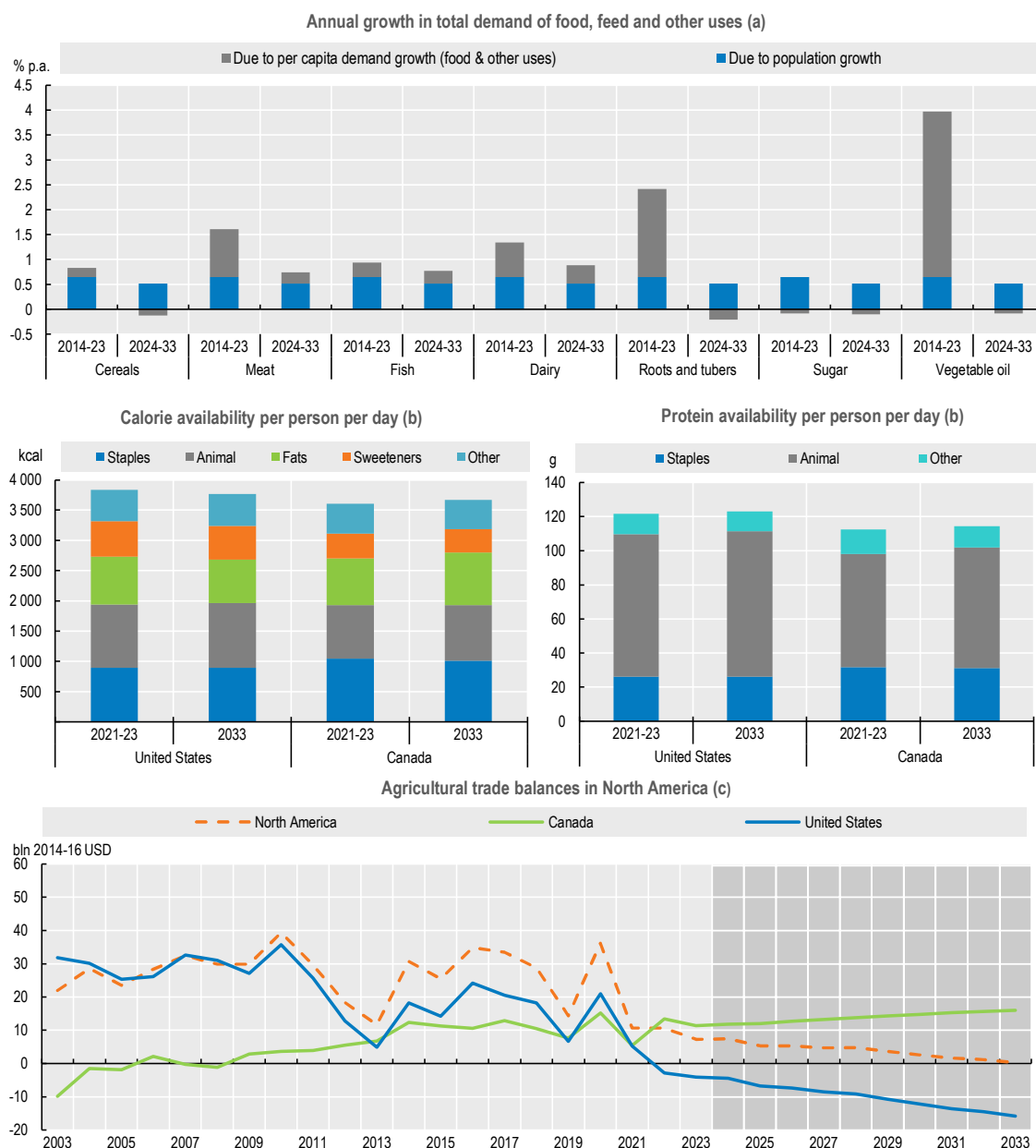
Figure 3. Land use change and livestock production in North America



Source: OECD/FAO (2024), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/m17ra8>

Figure 4. Demand for key commodities, food availability and agricultural trade balances in North America



Notes: Estimates are based on historical time series from the FAOSTAT Food Balance Sheets and trade indices databases and include products not covered by the *Outlook*. a) Population growth is calculated by assuming per capita demand constant at the level of the year preceding the decade. b) Fats: butter and oils; Animal: egg, fish, meat and dairy except for butter; Staples: cereals, oilseeds, pulses and roots and tubers. c) Include processed products, fisheries (not covered in the FAOSTAT trade index) based on outlook data.

Source: FAO (2024). FAOSTAT Value of Agricultural Production Database, <http://www.fao.org/faostat/en/#data/QV>; OECD/FAO (2024) "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/8jbgp9>

Table 1. Regional indicators: North America

	Average		2033	%	Growth ²	
	2011-13	2021-23 (base)			2014-23	2024-33
Macro assumptions						
Population ('000)	351 327	376 892	398 917	5.84	0.65	0.51
Per capita GDP ¹ (kUSD)	49.32	57.30	65.73	14.72	1.44	1.26
Production (USD bln 2014-16)						
Net value of agricultural and fisheries ³	252.0	289.7	323.1	11.54	0.85	0.98
Net value of crop production ³	121.0	140.8	162.2	15.20	-0.01	0.80
Net value of livestock production ³	112.6	132.9	143.8	8.23	2.22	1.27
Net value of fish production ³	18.4	16.0	17.1	6.89	-1.71	0.24
Quantity produced (kt)						
Cereals	444 544	496 382	559 410	12.70	0.01	0.62
Pulses	7 790	7 311	10 247	40.17	-2.63	2.99
Roots and tubers	5 272	6 051	6 308	4.25	1.44	0.27
Oilseeds ⁴	110 446	144 850	153 361	5.88	0.40	0.70
Meat	45 812	52 949	56 424	6.56	1.80	0.82
Dairy ⁵	12 350	14 547	16 405	12.77	1.59	1.16
Fish	6 543	5 650	5 955	5.39	-1.82	0.24
Sugar	7 202	7 871	8 595	9.21	0.65	0.70
Vegetable oil	14 257	18 754	21 097	12.49	2.22	0.84
Biofuel production (mln L)						
Biodiesel	4 615	11 947	20 846	74.49	10.21	2.38
Ethanol	54 476	61 636	64 941	5.36	0.35	0.33
Land use (kha)						
Total agricultural land use	461 686	463 475	463 370	-0.02	0.02	0.00
Total land use for crop production ⁶	170 827	171 800	168 435	-1.96	-0.04	-0.18
Total pasture land use ⁷	290 859	291 676	294 935	1.12	0.06	0.10
GHG emissions (Mt CO ₂ -eq)						
Total	427	431	449	4.33	0.14	0.43
Crop	127	124	136	9.63	-0.21	0.33
Animal	285	289	294	1.98	0.25	0.48
Demand and food security						
Daily per capita caloric food consumption ⁸ (kcal)	3 698	3 815	3 753	-1.63	0.60	-0.18
Daily per capita protein food consumption ⁸ (g)	114.8	120.7	122.6	1.5	0.8	0.2
Per capita food consumption (kg/year)						
Staples ⁹	125.5	124.8	124.8	0.01	0.19	-0.02
Meat	72.3	78.6	79.2	0.76	0.57	0.22
Dairy ⁵	31.2	33.7	34.9	3.52	0.68	0.39
Fish	21.4	22.8	23.9	4.93	0.60	0.15
Sugar	30.3	30.2	29.7	-1.52	-0.11	-0.10
Vegetable oil	33.9	40.2	36.4	-9.49	0.72	-0.72
Trade (bln USD 2014-16)						
Net trade ³	20	10	0	-97.39
Value of exports ³	144	172	194	12.60	0.19	1.12
Value of imports ³	124	163	194	19.05	2.21	1.51
Self-sufficiency ratio (calorie basis) ¹⁰	128.6	127.6	130.1	1.99	-0.59	0.26

Notes: 1. Constant 2010 USD. 2. Least square growth rates (see glossary). 3. Follows FAOSTAT methodology, based on commodities in the Aglink-Cosimo model. 4. Oilseeds represent soybeans and other oilseeds. 5. Milk solid equivalent units. 6. Area accounts for multiple harvests of arable crops. 7. Land for grazing. 8. Food availability, not intake. 9. Cereals, oilseeds, pulses, roots and tubers. 10. Production / (Production + Imports - Exports)*100.

Sources: FAO (2024). FAOSTAT Food Balance Sheets and trade indices databases, <http://www.fao.org/faostat/en/#data>; OECD/FAO (2024), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.