

# Rural Migration News

## Blog 226

JULY 2021

### USDA Projections to 2030

USDA's projections of agricultural production and trade during the 2020-30 decade anticipate stable production and prices of field crops such as corn and soybeans, and slightly rising production and prices for milk and meat due to increased demand for these animal products abroad. The US is expected to remain a net exporter of agricultural commodities, but the agricultural trade surplus is projected to decline as fruit and vegetable imports rise faster than exports.

The two major factors that determine the global demand for food are the number of people and their incomes. USDA begins with a world population of 7.6 billion in 2020, and assumes that population growth will slow from 1.1 percent a year between 2011 to 2020 to 0.9 percent a year between 2021 and 2030. The ex-USSR is expected to have a stable population, while Africa's population is expected to increase by 2.5 percent a year.

The world's GDP was \$80 trillion in 2020 (2015 dollars), including \$19 trillion in the US, \$16.3 trillion in the EU, \$14.5 trillion in China, \$4.3 trillion in Japan, and \$1.1 trillion in Mexico. Per capita incomes in 2020 (2015 dollars) averaged \$10,500 globally and were \$56,600 in the US, \$31,300 in the EU, \$10,400 in China, \$34,600 in Japan, and \$8,600 in Mexico. China's GDP is expected to increase by five percent a year between 2021 and 2030, double the 2.5 percent economic growth rate of Mexico.

### Crops

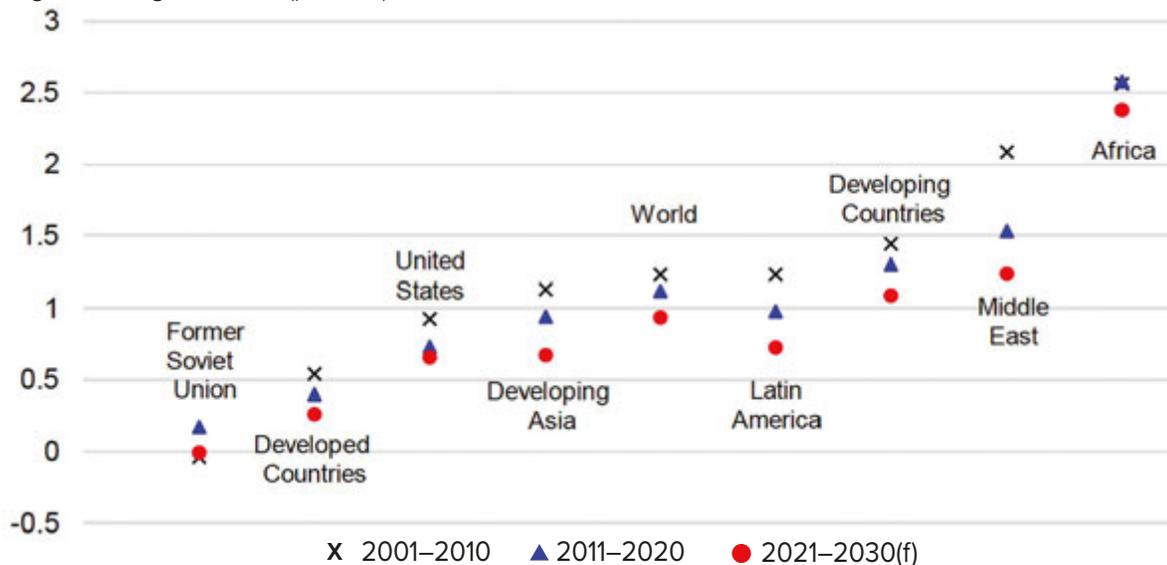
The prices of corn, soybeans, and wheat are projected to remain at about \$10, \$5, and \$4 a bushel, respectively, over the next decade, with fewer year-to-year price fluctuations than between 2011 and 2020.

The planted acreage of eight major US field crops is expected to remain at about 250 million acres, led by 90 million acres of corn, 90 million acres of soybeans, and 45 million acres of wheat.

World Population Growth is Expected to Slow to Less than 1% a Year from 2021-30

World Population Growth Rates, 2001–30

Average annual growth rate (percent)

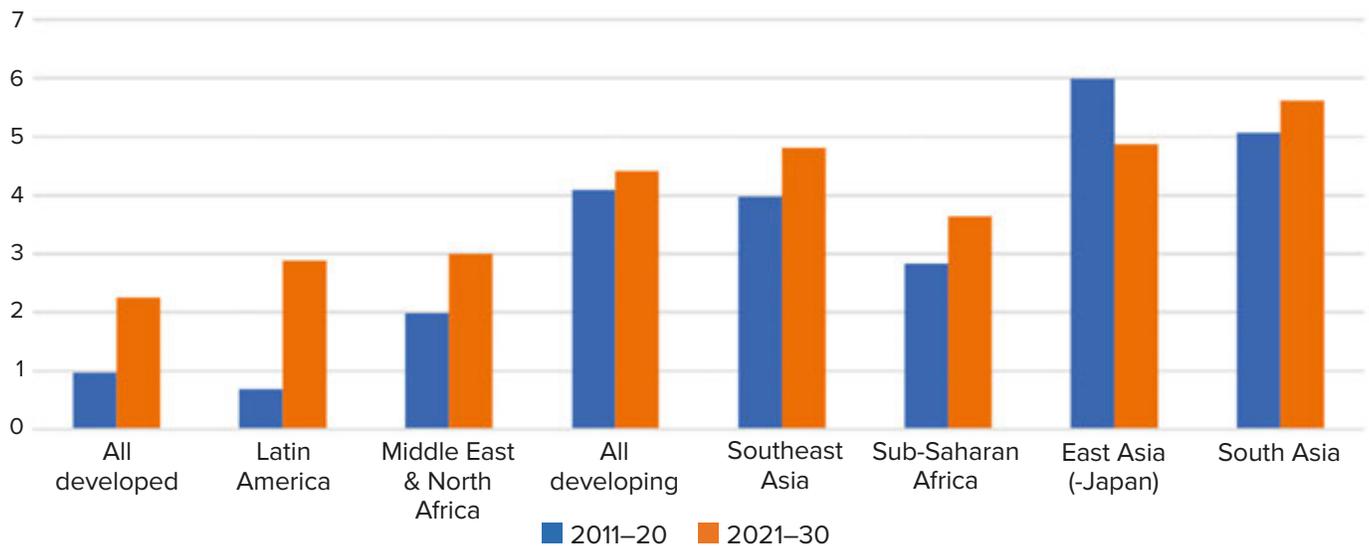


Note: Developing Asia = Asia less Japan. Source: U.S. Department of Commerce. Bureau of the Census.

## Economic Growth is Expected to be Faster from 2021-30 in All Regions Except East Asia

### Real gross domestic product growth by developed and developing country regions, 2011–30

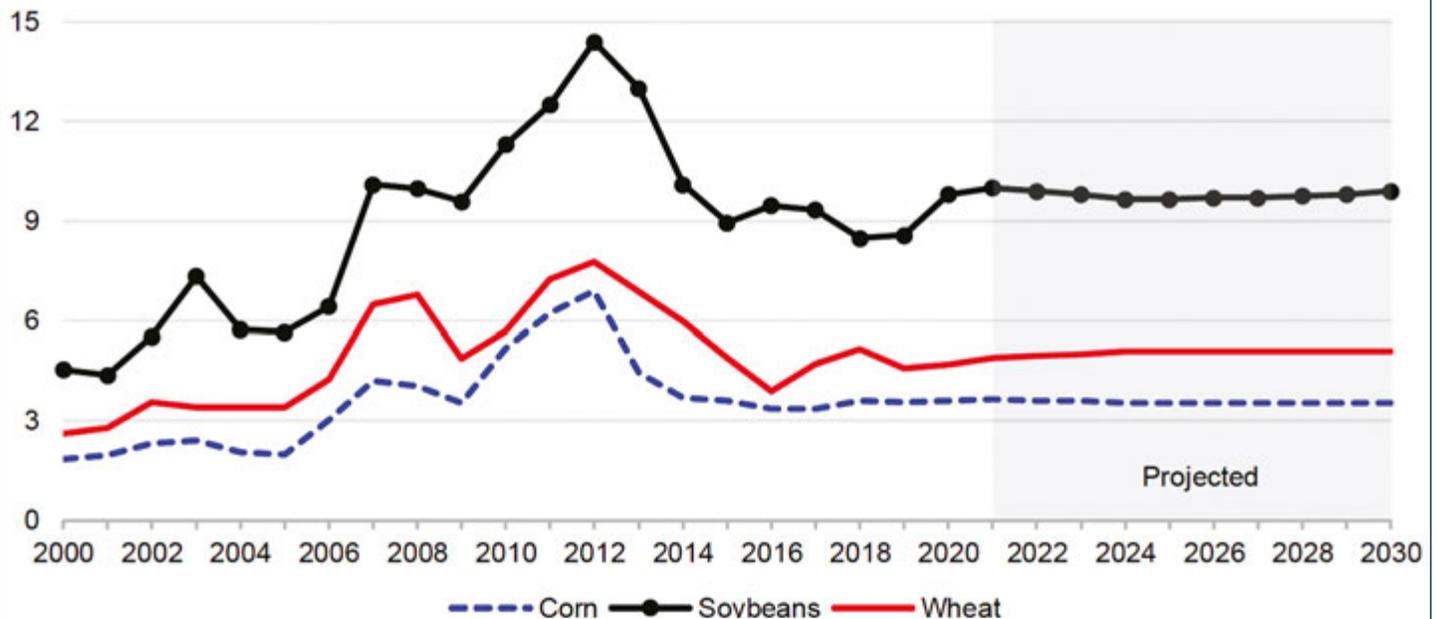
Average annual percent change



## Corn, Soybean, and Wheat Prices are Expected to Remain Stable from 2021-30

### Corn, soybean, and wheat price, 2000–30

Dollars per bushel



The value of US-produced fruit (38 percent of total FNV value), tree nuts (21 percent), and vegetables (41 percent), is projected to increase 27 percent from \$51 billion in 2020 to \$65 billion in 2030 for fruits, nuts, and vegetables. The value of fruit and nuts surpassed the value of vegetables in 2010, and the gap between more valuable fruit and

nuts and less valuable vegetables is projected to widen during the 2020s.

About 60 percent of US vegetables by value are fresh, some of which come from greenhouses and other protected culture structures for which USDA has limited data. A quarter of US vegetables are processed,

and three fourths of processed vegetables involve tomatoes. By weight, fruit is 27 percent of the 186 billion pounds of US fruits, nuts, and vegetables produced in 2020, tree nuts five percent, and vegetables 68 percent.

## Corn, Soybeans, and Wheat Account for 90 Percent of Field Crop Acreage

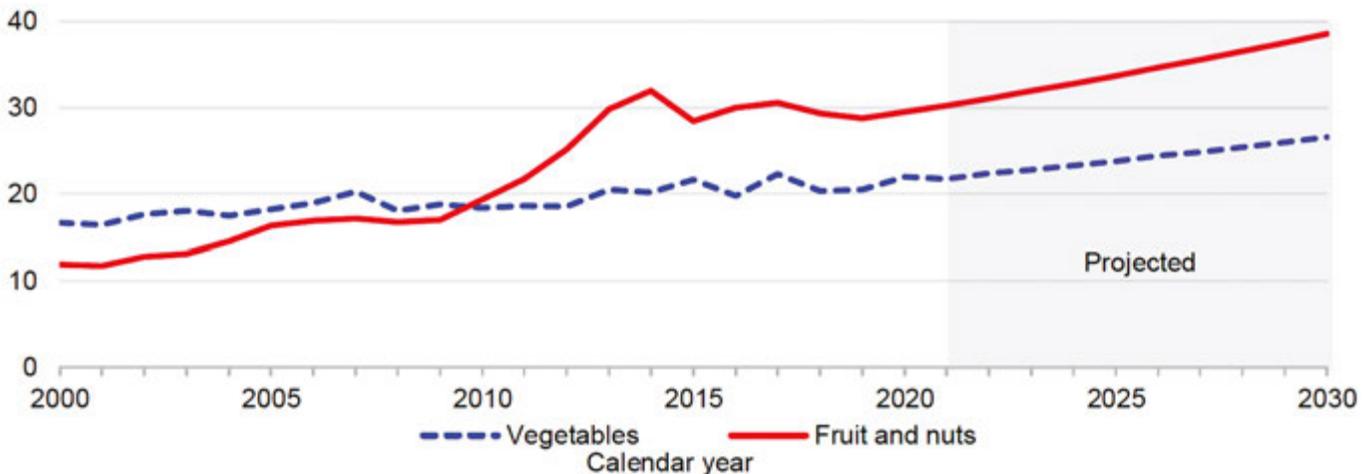
Table 5: U.S. acreage for major field crops and Conservation Reserve Program (CRP) assumptions, long-term projections

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Million acres												
Planted acreage, eight major crops												
Corn	89.7	91.0	90.0	90.0	90.0	90.0	90.0	89.0	89.0	89.0	89.0	89.0
Sorghum	5.3	5.8	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7
Barley	2.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Oats	2.8	3.0	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7
Wheat	45.5	44.3	46.0	46.0	46.0	45.5	45.0	45.0	45.0	44.5	44.5	44.5
Rice	2.5	3.0	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Upland cotton	13.5	11.9	11.2	11.8	12.0	12.2	12.3	12.4	12.5	12.6	12.7	12.8
Soybeans	76.1	83.1	89.0	90.0	90.0	90.5	90.5	90.0	90.0	90.0	90.0	90
<b>Total</b>	<b>238.2</b>	<b>244.8</b>	<b>251.3</b>	<b>252.9</b>	<b>253.1</b>	<b>253.3</b>	<b>252.9</b>	<b>251.5</b>	<b>251.6</b>	<b>251.2</b>	<b>251.2</b>	<b>251.3</b>
CRP acreage assumptions												
Total CRP	22.3	22.0	22.6	25.5	27.0	26.9	27.0	26.9	26.9	26.9	26.9	26.9
<b>Total planted plus CRP</b>	<b>260.6</b>	<b>266.8</b>	<b>273.9</b>	<b>278.4</b>	<b>280.1</b>	<b>280.2</b>	<b>279.9</b>	<b>278.4</b>	<b>278.5</b>	<b>278.1</b>	<b>278.1</b>	<b>278.2</b>

## Fruits and Tree Nuts are 57% of the \$51 Billion Value of FNV Crops

### Farm value of U.S. fruit, nut, and vegetable production, 2000–30

Billion dollars



## Livestock

Average meat consumption is expected to increase by a pound a year to 228 pounds per person by 2030, including 101 pounds of chicken, 58 pounds of beef, and 51 pounds of pork.

The production of milk is expected to increase by 1.1 percent a year to 248 billion pounds in 2030. The number of cows is projected to remain stable at 9.4 million, but milk per cow is projected to increase to an average 26,300 pounds a year. Rising milk production could put downward pressure on milk prices.

## Trade

The US has had an agricultural trade surplus since 1960. The agricultural trade surplus topped \$25 billion in 1981, 1995-96, and 2008-14, but is now less than \$20 billion and shrinking because US farm exports are primarily relatively low value grain crops while imports include more valuable fresh fruits and vegetables. The value of fresh fruit and vegetable imports is projected to increase from \$24 billion in 2020 to \$37 billion in 2030.

## The \$16 Billion Value of U.S. Noncitrus Fruit in 2020 Exceeded the \$13 Billion Value of Fresh Vegetables

Table 17: Fruit, nuts, and vegetables long-term projections

Item	Unit	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Production, farm weight</b>													
Fruit and nuts	Mil. lbs.	56,772	57,484	55,635	56,201	56,458	56,919	57,332	57,763	58,191	58,623	59,057	59,493
Citrus	Mil. lbs.	16,280	15,560	14,184	14,602	14,475	14,514	14,502	14,505	14,504	14,505	14,505	14,505
Noncitrus	Mil. lbs.	33,861	34,600	34,220	34,220	34,457	34,733	35,011	35,291	35,573	35,858	36,145	36,434
Tree nuts	Mil. lbs.	6,631	7,324	7,231	7,378	7,525	7,672	7,819	7,966	8,113	8,260	8,407	8,554
Vegetables <sup>1</sup>	Mil. lbs.	123,552	128,213	130,687	128,234	129,026	128,735	129,032	128,943	129,323	129,348	129,704	129,447
Fresh market	Mil. lbs.	37,974	40,476	39,639	39,595	39,115	39,339	39,278	39,322	39,411	39,566	39,648	39,586
Processing	Mil. lbs.	31,615	33,214	34,090	33,223	33,399	33,562	33,740	33,887	34,025	34,155	34,277	34,390
Potatoes	Mil. lbs.	42,442	41,548	45,393	43,637	44,189	43,407	43,573	43,121	43,124	42,792	42,789	42,398
Pulses	Mil. lbs.	5,478	6,391	5,385	5,601	6,095	6,160	6,193	6,291	6,447	6,526	6,652	6,738
Other <sup>2</sup>	Mil. lbs.	6,042	6,584	6,219	6,179	6,229	6,267	6,248	6,322	6,316	6,309	6,337	6,335
<b>Total fruit, nuts, vegetables</b>	<b>Mil. lbs.</b>	<b>180,324</b>	<b>185,697</b>	<b>186,322</b>	<b>184,435</b>	<b>185,484</b>	<b>185,654</b>	<b>186,364</b>	<b>186,706</b>	<b>187,514</b>	<b>187,971</b>	<b>188,760</b>	<b>188,940</b>
<b>Farm value</b>													
Fruit and nuts	Million dollars	28,770	29,453	30,247	31,071	31,919	32,790	33,685	34,604	35,549	36,519	37,517	38,542
Citrus	Million dollars	3,400	3,398	3,490	3,593	3,699	3,809	3,922	4,038	4,157	4,280	4,407	4,537
Noncitrus	Million dollars	15,446	15,833	16,228	16,634	17,050	17,476	17,913	18,361	18,820	19,291	19,773	20,267
Tree nuts	Million dollars	9,924	10,222	10,528	10,844	11,170	11,505	11,850	12,205	12,571	12,949	13,337	13,737
Vegetables	Million dollars	20,466	21,941	21,690	22,411	22,757	23,302	23,788	24,383	24,866	25,421	25,945	26,573
Fresh market	Million dollars	11,716	12,532	12,609	12,921	13,296	13,606	13,973	14,350	14,709	15,083	15,471	15,886
Processing	Million dollars	1,614	1,784	1,862	1,858	1,891	1,922	1,962	1,994	2,025	2,057	2,089	2,120
Potatoes	Million dollars	4,138	4,275	3,899	4,131	4,025	4,164	4,131	4,216	4,215	4,279	4,288	4,354
Pulses	Million dollars	1,017	1,176	1,188	1,329	1,334	1,359	1,427	1,488	1,537	1,576	1,626	1,695
Other	Million dollars	1,981	2,174	2,131	2,173	2,212	2,252	2,295	2,335	2,380	2,425	2,470	2,518

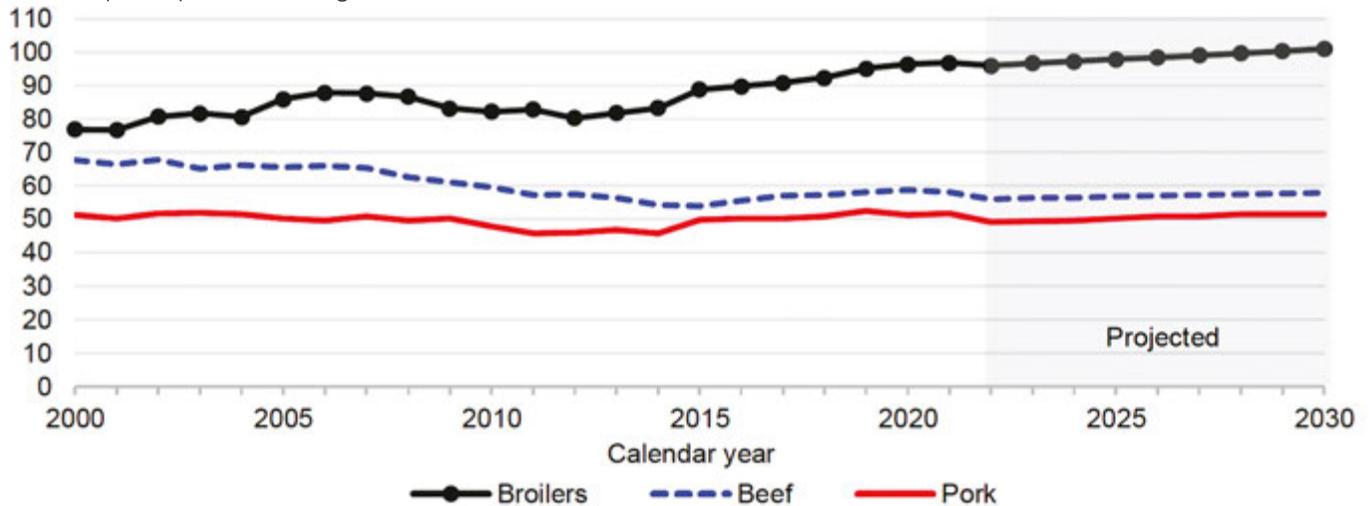
<sup>1</sup> Includes melons, sweet potatoes, and mushrooms. Utilized production is used for potatoes. Pulses include edible dry beans and peas, lentils, and other peas.

<sup>2</sup> Other includes melons and mushrooms. Sweet potatoes included with fresh vegetables.

## Chicken Accounts for 44 Percent of U.S. Meat Consumption

### U.S. per capita meat disappearance, 2000–30

Pounds per capita, retail weight



## References

USDA Agricultural Projections to 2030. <https://www.usda.gov/sites/default/files/documents/USDA-Agricultural-Projections-to-2030.pdf>

<https://www.usda.gov/oce/commodity-markets/baseline>

## A Stable Number of Cows in Projected to Produce More Milk

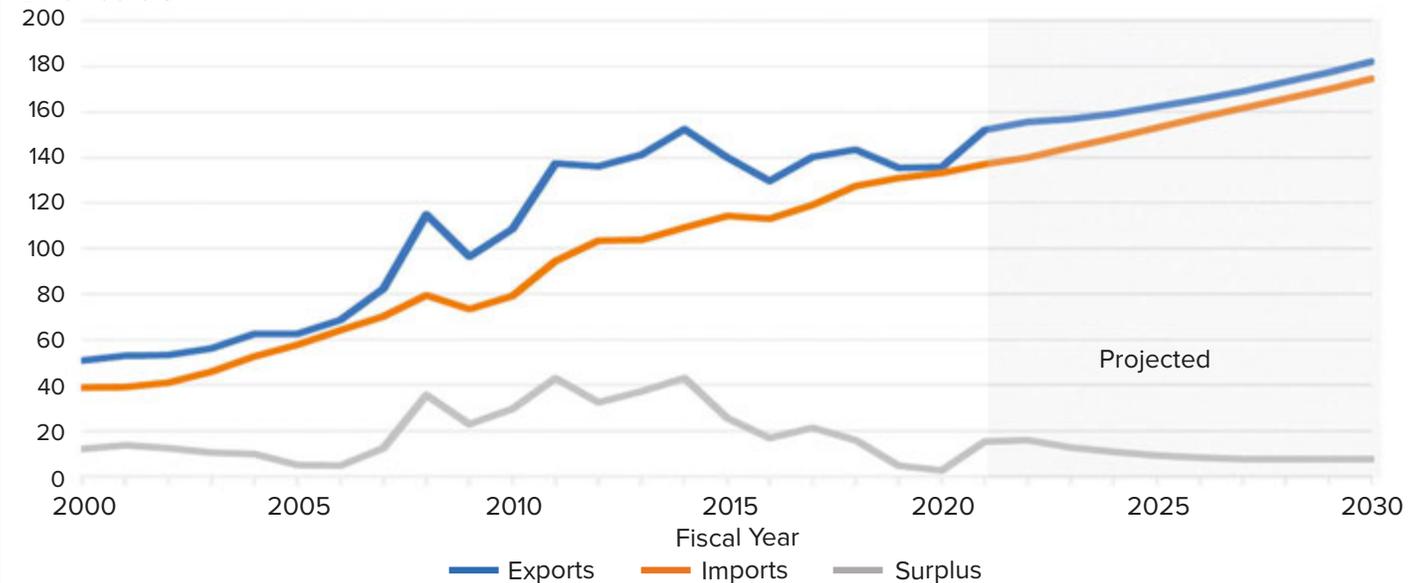
Table 24: Dairy long-term projections

Item	Units	2019	2020 1/	2021	2022	2023	2024 1/	2025	2026	2027	2028 1/	2029	2030
<b>Milk production and marketings:</b>													
Number of cows	Thousand	9,336	9,365	9,370	9,365	9,375	9,375	9,370	9,370	9,375	9,390	9,405	9,430
Milk per cow	Pounds	23,391	23,735	24,070	24,305	24,560	24,865	25,040	25,290	25,540	25,865	26,045	26,295
Milk production	Billion lbs.	218.4	222.3	225.5	227.6	230.3	233.1	234.6	237.0	239.4	242.9	245.0	248.0
Farm use	Billion lbs.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Marketings	Billion lbs.	217.4	221.3	224.5	226.6	229.2	232.1	233.6	235.9	238.4	241.9	243.9	247.0
<b>Supply and use, milkfat basis:</b>													
Beginning commercial stocks	Billion lbs.	13.8	13.6	14.0	13.8	14.4	15.2	16.0	16.7	17.0	17.4	17.9	18.3
Marketings	Billion lbs.	217.4	221.3	224.5	226.6	229.2	232.1	233.6	235.9	238.4	241.9	243.9	247.0
Imports	Billion lbs.	6.9	6.9	6.7	6.3	6.2	6.1	6.0	6.1	6.0	6.0	6.0	6.0
Commercial supply	Billion lbs.	238.1	241.8	245.2	246.7	249.8	253.4	255.6	258.7	261.4	265.3	267.8	271.3
Domestic commercial use 2/	Billion lbs.	215.2	218.2	221.9	222.8	224.8	227.6	228.8	231.7	234.0	237.4	239.5	242.5
Commercial exports	Billion lbs.	9.1	9.3	9.5	9.5	9.8	9.8	10.1	10.0	10.0	10.0	10.0	9.9
CCC donations 3/	Billion lbs.	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ending commercial stocks	Billion lbs.	13.6	14.0	13.8	14.4	15.2	16.0	16.7	17.0	17.4	17.9	18.3	18.9
<b>Supply and use, skim solids basis:</b>													
Beginning commercial stocks	Billion lbs.	10.7	10.2	10.5	10.2	10.3	10.8	11.3	11.7	11.9	12.1	12.4	12.5
Marketings	Billion lbs.	217.4	221.3	224.5	226.6	229.2	232.1	233.6	235.9	238.4	241.9	243.9	247.0
Imports	Billion lbs.	5.8	5.7	5.7	5.4	5.5	5.4	5.4	5.3	5.3	5.2	5.1	5.1
Commercial supply	Billion lbs.	233.9	237.2	240.7	242.2	245.0	248.3	250.3	252.9	255.6	259.2	261.4	264.6
Domestic commercial use 2/	Billion lbs.	181.9	179.5	182.7	183.3	184.6	186.3	186.9	188.4	190.0	192.2	193.7	195.7
Commercial exports	Billion lbs.	41.5	47.1	47.8	48.6	49.6	50.7	51.7	52.6	53.5	54.6	55.2	56.1
CCC donations 3/	Billion lbs.	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ending commercial stocks	Billion lbs.	10.2	10.5	10.2	10.3	10.8	11.3	11.7	11.9	12.1	12.4	12.5	12.8
<b>Prices:</b>													
All milk	\$/hundredweight	18.63	18.00	17.60	18.40	17.95	17.60	17.60	18.15	18.55	18.80	19.30	19.60
Cheese	\$/lb.	1.76	1.91	1.80	1.82	1.75	1.69	1.66	1.70	1.74	1.76	1.78	1.79
Butter	\$/lb.	2.24	1.60	1.70	1.83	1.83	1.91	1.91	1.98	2.00	2.04	2.10	2.16
Nonfat dry milk	\$/lb.	1.04	1.04	1.05	1.20	1.16	1.09	1.09	1.08	1.09	1.09	1.16	1.18
Dry whey	\$/lb.	0.38	0.35	0.36	0.38	0.39	0.39	0.41	0.43	0.43	0.42	0.42	0.42

## The U.S. Farm Trade Surplus is Projected to Shrink by 2030

### U.S. agricultural trade long-term projections

Billion dollars



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