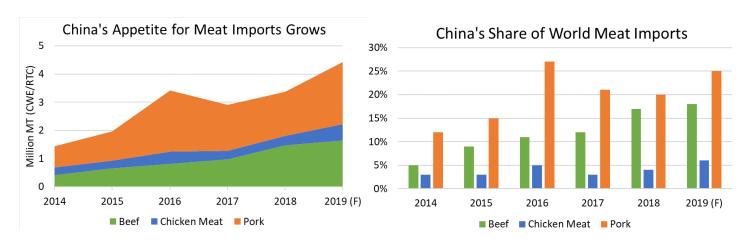
Livestock and Poultry: World Markets and Trade

China's Share of World Meat Imports to Expand in 2019



- Beef: In 2019, China production is forecast to grow 2 percent while imports will rise 15 percent.
 China will remain the top global importer in 2019. Brazil, Argentina, and Uruguay combined captured almost 70 percent of China's market in 2018 and are expected to remain key suppliers in 2019. Australia and New Zealand will seek to maintain their share of the market amid dwindling exportable supplies.
- Pork: China imports are forecast record high in 2019 due to impacts from African Swine Fever
 (ASF). The virulent disease continues to spread and is driving a significant liquidation of the swine
 herd. Lower hog supplies this year will cause a forecast 10-percent decline in production.
 Imports will partially offset lower supplies, with the EU, Canada, Brazil, and United States all
 expected to boost shipments to China.
- Chicken meat: Demand will be robust as outbreaks of ASF spur consumers to turn away from pork as elevated prices fuel expansion. However, China continues to be challenged by its Highly Pathogenic Avian Influenza (HPAI)-related bans which limit the supply of imported genetic stock, constraining additional growth. As brisk demand outpaces increasing domestic production, imports are forecast to surge nearly 70 percent in 2019.

	Major Exporters: 2019 Forecast													
Beef					Por	k				Chicken Meat				
Country	Produ	ction	Total I	Exports	Country	Produc	ction	Total E	xports	Country	Produc	tion	Total E	xports
United States	1	2%	•	3%	EU	+	0%	1	11%	Brazil	1	2%	1	2%
Brazil	•	3%	•	6%	United States	•	4%	1	5%	United States	1	1%	1	1%
Australia	-	-5%	•	-5%	Brazil	•	6%	1	23%	EU	1	2%	1	2%

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Beef and Veal

Global production is forecast to grow percent in 2019 to 62.6 million tons, primarily from gains in Brazil, the United States, and China. China's expansion is driven largely by growing demand for beef and other meats as pork production will be hindered by disease issues. Growing beef demand in China and Hong Kong, together with higher domestic demand, will spur higher production in Brazil. Gains by Mexico and India are driven by improved export opportunities. Australia will continue to see declines in production because of widespread drought in two major cattle-producing states as well as stock losses from severe flooding in the north. Similarly, dry weather conditions are expected to affect EU production.

Global exports in 2019 are forecast to nearly 3 percent to 10.8 million tons as shipments from Brazil, Argentina, India, and the United States will more than offset declines by Australia, New Zealand, and Uruguay. Brazil and Argentina are poised to remain top suppliers to China as the country makes a concerted effort to boost its beef supplies. Australia continues to grapple with maintaining exportable supplies following prolonged drought, leading to growing global competition in key Asian markets. These negative effects may be temporarily offset by tariff reductions from Japan, South Korea, and China because of bilateral free trade agreements.

U.S. production and exports: Production is forecast up 2 percent in 2019 to 12.4 million tons as improving weights will help curb marginal growth in herd expansion. Exports are forecast up 3 percent to a record 1.5 million tons, accounting for nearly 12 percent of U.S. production. The United States is poised to expand market share in its top markets, Japan and South Korea. Australia, the top competitor to U.S. beef in Asia, is struggling with weather-related production impacts, leading to lower exportable supplies. As China's demand for beef is forecast to rise, U.S. shipments will be limited by current U.S.-China trade tensions.



Livestock and Poultry: World Markets and Trade

Beef and Veal Production - Selected Countries Summary 1,000 Metric Tons (Carcass Weight Equivalent)

	1,000 Me	etric Tons (Carcas	s weight Equivale	ent)		
	2015	2016	2017	2018	2019	2019
					Oct	Apı
Production						
Brazil	9,425	9,284	9,550	9,900	10,200	10,20
European Union	7,684	7,880	7,869	8,030	7,800	7,82
China	6,169	6,169	6,346	6,440	7,400	6,57
India	4,100	4,200	4,250	4,300	4,330	4,34
Argentina	2,720	2,650	2,840	3,050	3,000	3,02
Australia	2,547	2,125	2,149	2,306	2,180	2,20
Mexico	1,850	1,879	1,925	1,980	2,000	2,03
Pakistan	1,710	1,750	1,780	1,800	1,820	1,82
Turkey	1,423	1,484	1,399	1,400	1,400	1,40
Russia	1,355	1,335	1,296	1,336	1,355	1,34
Others	9,379	9,396	9,304	9,398	9,413	9,40
Total Foreign	48,362	48,152	48,708	49,940	50,898	50,15
United States	10,817	11,507	11,943	12,253	12,725	12,44
Total	59,179	59,659	60,651	62,193	63,623	62,59
otal Dom. Consumption						
China	6,808	6,928	7,313	7,910	8,705	8,24
Brazil	7,781	7,652	7,750	7,865	8,045	8,03
European Union	7,742	7,899	7,838	8,049	7,820	7,82
India	2,294	2,436	2,401	2,744	2,705	2,64
Argentina	2,534	2,434	2,547	2,544	2,425	2,44
Mexico	1,797	1,809	1,841	1,872	1,890	1,90
Russia	1,967	1,849	1,800	1,805	1,810	1,82
Pakistan	1,636	1,685	1,722	1,741	1,761	1,76
Turkey	1,455	1,495	1,424	1,496	1,469	1,45
Japan	1,186	1,215	1,278	1,323	1,320	1,36
Others	10,820	10,840	10,713	10,730	11,127	10,92
Total Foreign	46,020	46,242	46,627	48,079	49,077	48,42
United States	11,275	11,676	12,052	12,179	12,657	12,32
Total	57,295	57,918	58,679	60,258	61,734	60,74

Notes: Includes meat of other bovines for certain countries. India includes carabeef (water buffalo). From 2015, the following countries are excluded: Albania, Azerbaijan, Cote d'Ivoire, Georgia, Ghana, Jamaica, Senegal and Uzbekistan. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Beef and Veal Trade - Selected Countries Summary 1,000 Metric Tons (Carcass Weight Equivalent)

	1,000 Me	tric rons (Carcas:	s weight Equivale	:iic)		
	2015	2016	2017	2018	2019	2019
					Oct	Apr
Total Imports						
China	663	812	974	1,467	1,320	1,680
Japan	707	719	817	865	850	890
Korea, South	414	513	531	582	565	600
Hong Kong	339	453	543	541	600	550
Russia	622	524	516	483	470	500
European Union	363	368	338	370	370	365
Egypt	360	340	250	300	330	330
Chile	245	298	281	317	320	325
Canada	269	243	228	233	250	250
Mexico	175	188	196	202	220	215
Others	1,948	1,856	1,897	1,889	1,987	1,915
Total Foreign	6,105	6,314	6,571	7,249	7,282	7,620
United States	1,528	1,366	1,358	1,360	1,406	1,365
Total	7,633	7,680	7,929	8,609	8,688	8,985
Total Exports						
Brazil	1,705	1,698	1,856	2,083	2,200	2,210
India	1,806	1,764	1,849	1,556	1,625	1,700
Australia	1,854	1,480	1,485	1,662	1,510	1,575
New Zealand	639	587	593	633	589	590
Argentina	186	216	293	508	575	580
Canada	397	441	461	502	515	525
Uruguay	372	421	436	466	415	440
European Union	305	349	369	351	350	360
Paraguay	381	389	378	365	360	355
Mexico	228	258	280	310	330	340
Others	650	660	665	685	635	684
Total Foreign	8,523	8,263	8,665	9,121	9,104	9,359
United States	1,028	1,160	1,297	1,432	1,472	1,476
Total	9,551	9,423	9,962	10,553	10,576	10,835

Notes: Includes meat of other bovines for certain countries. Indian exports are carabeef (water buffalo). From 2015, the following countries are excluded: Albania, Azerbaijan, Cote d'Ivoire, Georgia, Ghana, Jamaica, Senegal and Uzbekistan. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Cattle Stocks - Selected Countries Summary (in 1,000 head)

		(111 1,000	ileau)			
	2015	2016	2017	2018	2019 Oct	2019 Apr
					OCC	ADI
Total Cattle Beg. Stks						
India	301,100	302,600	303,600	305,000	306,500	306,400
Brazil	213,035	219,180	226,045	232,350	238,150	238,158
China	90,073	90,558	88,345	90,387	94,700	90,000
European Union	88,406	89,152	89,152	88,819	87,290	87,508
Argentina	51,545	52,565	53,515	53,715	54,215	53,815
Australia	29,102	27,413	24,971	26,176	25,200	26,000
Russia	19,152	18,879	18,638	18,585	18,500	18,434
Mexico	17,120	16,615	16,490	16,584	16,815	16,699
Turkey	14,345	14,128	14,222	14,500	14,990	15,150
Uruguay	12,053	12,016	11,864	11,744	11,500	11,500
Others	44,185	43,746	43,981	44,203	44,403	44,298
Total Foreign	880,116	886,852	890,823	902,063	912,263	907,962
United States	89,143	91,918	93,705	94,298	95,000	94,760
Total	969,259	978,770	984,528	996,361	1,007,263	1,002,722
Production (Calf Crop)						
India	67,000	67,500	68,200	68,700	69,000	69,000
Brazil	48,220	48,250	48,735	49,500	50,700	50,490
China	49,660	48,890	48,800	47,500	50,850	47,100
European Union	29,900	30,100	29,550	29,080	28,900	28,800
Argentina	14,200	14,000	14,200	14,700	14,300	14,400
Australia	9,394	6,600	9,700	9,100	8,800	8,700
Mexico	6,850	7,100	7,485	7,700	7,900	7,900
Russia	6,620	6,600	6,572	6,564	6,760	6,550
New Zealand	5,040	5,060	4,728	5,050	4,766	4,765
Canada	4,198	4,272	4,358	4,297	4,340	4,325
Others	13,686	13,727	14,192	14,092	14,350	14,086
Total Foreign	254,768	252,099	256,520	256,283	260,666	256,116
United States	34,087	35,093	35,758	36,403	36,675	36,500
Total	288,855	287,192	292,278	292,686	297,341	292,616

Notes: May contain other bovines. From 2015, Colombia and Venezuela are excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Cattle Trade - Selected Countries Summary (in 1,000 head)

		(111 1,000 11	leau)			
	2015	2016	2017	2018	2019 Oct	2019 Apr
Total Imports						
Turkey	203	494	896	1,461	1,000	1,000
Egypt	170	300	250	250	340	270
Canada	36	32	141	202	190	200
China	129	133	121	140	150	150
Russia	94	63	65	115	65	85
Others	37	47	49	41	42	45
Total Foreign	669	1,069	1,522	2,209	1,787	1,750
United States	1,984	1,708	1,806	1,899	1,960	2,000
Total	2,653	2,777	3,328	4,108	3,747	3,750
Total Exports						
Mexico	1,213	1,130	1,203	1,278	1,200	1,35
European Union	810	997	1,028	1,104	1,000	1,150
Brazil	212	293	407	790	900	1,000
Australia	1,336	1,154	885	1,151	950	900
Canada	860	789	663	650	660	650
Others	337	434	482	570	435	430
Total Foreign	4,768	4,797	4,668	5,543	5,145	5,480
United States	73	69	193	239	195	245
Total	4,841	4,866	4,861	5,782	5,340	5,725

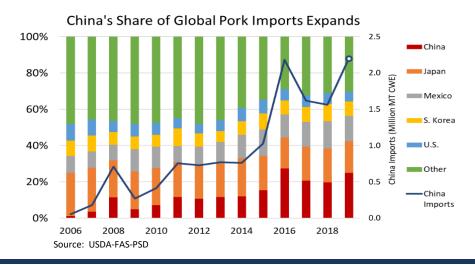
Notes: May contain other bovines. From 2015, Colombia and Venezuela are excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Pork

Global production is down 4 percent in 2019, driven by a sharp reduction in output in China. African Swine Fever (ASF) outbreaks have resulted in liquidation of breeding herds. Reduced hog supplies will result in a substantial contraction in pork production this year. Outside of China, production is growing moderately, led by strong growth in the United States (4 percent) and Brazil (6 percent). EU production is flat as weak hog prices caused producers to reduce sow herds last year. However, improved export prospects may encourage producers to begin expanding herds later this year. Canada production is forecast just 1 percent higher as producers have been reluctant to expand herds due to low hog prices.

Global exports are forecast 8 percent higher, fueled by rising demand from China and steady economic growth in most major pork markets. The EU will remain the top exporter with shipments up 11 percent year-over-year. Brazil, Canada, and the United States are also forecast higher in 2019. China remains the biggest source of demand, with imports forecast 41 percent higher due to an ASF-induced decline in production. Japan will also boost imports on strong demand for red meat while tariff reductions from newly-implemented free trade agreements will also stimulate demand for Canadian and EU pork. After a record-setting 2018, Korea will reduce imports due to high stocks and growing competition from domestic production.

U.S. production and exports: Production is forecast 4 percent higher in 2019 on increased slaughter and heavier carcass weights. Hog prices are on the rise on stronger export demand. Domestic demand also remains robust despite increasing competition from other meats. Exports are forecast 5 percent higher on strong global pork demand. Exports to China have accelerated this year despite retaliatory tariffs in place. Higher economic growth will also propel shipments to Latin America, the Philippines, and Oceania. Mexico remains the top volume destination for U.S. pork, but growth is dampened somewhat by retaliatory tariffs.



Pork Production - Selected Countries Summary 1,000 Metric Tons (Carcass Weight Equivalent)

	1,000 M	etric Ions (Carcas	ss weignt Equival	ent)		
	2015	2016	2017	2018	2019	2019
					Oct	Apr
traduction						
Production China	56,454	54,255	54,518	54,040	54,800	48,500
European Union	23,249	23,866	23,660			
·				24,300	24,000	24,225
Brazil	3,519	3,700	3,725	3,763	3,775	3,975
Russia	2,615	2,870	2,990	3,155	3,310	3,255
Vietnam	2,548	2,701	2,741	2,801	2,735	2,800
Canada	1,899	1,914	1,959	1,930	1,970	1,950
Philippines	1,463	1,540	1,563	1,602	1,630	1,640
Mexico	1,164	1,211	1,267	1,321	1,360	1,375
Korea, South	1,217	1,266	1,280	1,329	1,415	1,35
Japan	1,254	1,279	1,272	1,284	1,285	1,290
Others	5,505	5,472	5,528	5,614	5,684	5,728
Total Foreign	100,887	100,074	100,503	101,139	101,964	96,093
United States	11,121	11,320	11,611	11,942	12,621	12,40
Total	112,008	111,394	112,114	113,081	114,585	108,494
otal Dom. Consumption						
China	57,252	56,245	55,930	55,398	56,525	50,540
European Union	20,871	20,748	20,816	21,380	20,865	20,990
Russia	3,016	3,192	3,327	3,197	3,300	3,340
Brazil	2,893	2,870	2,941	3,035	3,042	3,07
Vietnam	2,526	2,647	2,703	2,786	2,730	2,925
Japan	2,568	2,626	2,731	2,775	2,806	2,800
Mexico	2,017	2,091	2,180	2,331	2,405	2,42
Korea, South	1,813	1,894	1,926	2,001	2,122	2,084
Philippines	1,637	1,734	1,803	1,887	1,929	1,954
Taiwan	937	902	920	927	933	918
Others	6,656	6,643	6,823	7,006	7,281	7,118
Total Foreign	102,186	101,592	102,100	102,723	103,938	98,17
United States	9,341	9,476	9,542	9,749	10,273	10,065
Total	111,527	111,068	111,642	112,472	114,211	108,236

Note: From 2015, the following countries are excluded: Albania, Armenia, Congo (Brazzaville), Gabon, Georgia, Ghana, Jamaica, North Korea, Kyrgyzstan, Moldova, Switzerland and Trinidad and Tobago. From 2016, Venezuela is excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Pork Trade - Selected Countries Summary 1,000 Metric Tons (Carcass Weight Equivalent)

	2015	2016	2017	2018	2019	2019
					Oct	Apr
Total Imports						
China	1,029	2,181	1,620	1,561	1,875	2,200
Japan	1,270	1,361	1,475	1,481	1,525	1,525
Mexico	981	1,021	1,083	1,188	1,235	1,235
Korea, South	599	615	645	753	685	700
Hong Kong	397	429	463	423	490	375
Philippines	175	195	241	286	300	315
Canada	216	215	222	233	235	255
Australia	220	210	215	216	230	230
Colombia	64	66	99	128	180	150
Russia	408	347	374	87	40	135
Others	854	846	940	1,077	1,121	1,190
Total Foreign	6,213	7,486	7,377	7,433	7,916	8,310
United States	506	495	506	473	481	456
Total	6,719	7,981	7,883	7,906	8,397	8,766
Total Exports						
European Union	2,390	3,130	2,858	2,934	3,150	3,250
Canada	1,239	1,320	1,351	1,330	1,365	1,390
Brazil	627	832	786	730	735	900
Chile	178	173	171	200	195	220
Mexico	128	141	170	178	190	185
China	231	191	208	203	150	160
Russia	7	25	37	45	50	50
Australia	36	38	43	47	45	45
South Africa	17	15	18	19	20	20
Serbia	19	11	16	14	12	16
Others	93	103	96	83	65	46
Total Foreign	4,965	5,979	5,754	5,783	5,977	6,282
United States	2,272	2,376	2,554	2,663	2,813	2,801
Total	7,237	8,355	8,308	8,446	8,790	9,083

Note: From 2015, the following countries are excluded: Albania, Armenia, Congo (Brazzaville), Gabon, Georgia, Ghana, Jamaica, North Korea, Kyrgyzstan, Moldova, Switzerland and Trinidad and Tobago. From 2016, Venezuela is excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Swine Stocks - Selected Countries Summary (in 1,000 head)

		(in 1,000	nead)			
	2015	2016	2017	2018	2019	2019
					Oct	Apr
otal Beginning Stocks						
China	471,602	458,029	442,092	441,589	440,000	428,070
European Union	148,341	148,716	147,188	150,257	148,900	148,766
Brazil	39,395	39,422	39,215	38,829	38,235	38,427
Russia	19,405	21,345	21,779	22,943	23,850	23,606
Canada	13,180	13,630	13,935	14,165	14,200	14,030
Korea, South	10,090	10,187	11,487	11,273	11,800	11,333
Mexico	9,788	10,187	10,229	10,410	10,540	10,700
	9,788		9,346	9,280	9,260	
Japan	· ·	9,313	•	•	·	9,160
Ukraine	7,492	7,240	6,816	6,236	5,930	6,115
Belarus	2,925	3,205	3,145	3,156	3,100	2,841
Others	2,308	2,272	nr	nr	nr	n
Total Foreign	733,966	723,402	705,232	708,138	705,815	693,048
United States	67,626	69,019	71,345	73,145	75,750	74,550
Total	801,592	792,421	776,577	781,283	781,565	767,598
Production (Pig Crop)						
China	698,000	672,500	704,098	683,862	712,000	550,000
European Union	265,287	266,000	267,250	270,000	269,000	268,500
Russia	39,830	41,477	43,700	45,250	46,950	46,500
Brazil	39,050	39,635	40,230	40,954	40,400	42,500
Canada	28,983	28,812	29,026	28,128	29,000	28,600
Korea, South	17,600	19,504	18,191	19,118	20,880	19,700
Mexico	17,300	17,700	18,100	18,650	18,950	19,250
Japan	16,700	16,900	16,785	16,690	16,600	16,690
Ukraine	9,624	9,296	8,767	8,100	8,650	8,550
Belarus	5,200	5,200	5,325	5,175	5,300	5,000
Others	4,921	5,028	nr	nr	nr	n
Total Foreign	1,142,495	1,122,052	1,151,472	1,135,927	1,167,730	1,005,290
United States	121,441	125,907	129,429	133,341	137,810	135,684
Total	1,263,936	1,247,959	1,280,901	1,269,268	1,305,540	1,140,974

Notes: The notation of a month beneath a year conveys the month in which the forecast for that year was released. nr - represents "no reporting" countries (data sets excluded beginning in 2017). From 2017, the following country is excluded: Australia.

Swine Trade - Selected Countries Summary (in 1,000 head)

		(111 1,000 11	caa,			
	2015	2016	2017	2018	2019	2019
					Oct	Apr
otal Imports						
Mexico	42	20	42	33	35	30
Ukraine	22	4	8	30	18	3!
Russia	2	8	6	8	4	:
China	4	8	6	10	8	
Belarus	8	9	6	3	8	
Canada	6	3	3	3	3	:
European Union	3	3	6	3	8	:
Korea, South	2	3	5	2	5	:
Brazil	1	0	1	1	2	:
Japan	0	1	1	1	1	
Others	0	0	nr	nr	nr	n
Total Foreign	90	59	84	94	92	10
United States	5,740	5,657	5,597	5,253	5,400	5,27
Total	5,830	5,716	5,681	5,347	5,492	5,37
otal Exports						
Canada	5,776	5,672	5,614	5,264	5,400	5,26
China	1,696	1,552	1,557	1,570	1,600	1,50
European Union	436	288	339	509	500	55
Russia	2	7	6	7	10	:
Brazil	4	2	5	8	6	
Ukraine	1	27	33	9	15	
Belarus	1	5	2	0	0	
Japan	0	0	0	0	0	
Korea, South	0	0	0	0	0	
Mexico	0	0	7	0	0	
Others	0	0	nr	nr	nr	n
Total Foreign	7,916	7,553	7,563	7,367	7,531	7,33
United States	41	48	59	64	65	6!
Total	7,957	7,601	7,622	7,431	7,596	7,39

Notes: The notation of a month beneath a year conveys the month in which the forecast for that year was released. From 2017, the following country is excluded: Australia.

African Swine Fever Curbs China's Pork Production, Boosts Trade in 2019

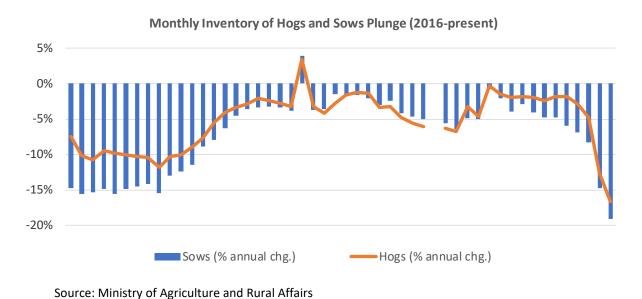
Lindsay Kuberka, Agricultural Economist

In the 8 months since emerging in China, the rapid and destructive spread of African Swine Fever (ASF) has radically shifted the outlook for China's hog industry. Pork production is forecast to decline by 10 percent in 2019 amid aggressive liquidation of the breeding herd. Despite efforts to contain the disease, outbreaks continue to emerge, and evidence mounts that China will be unable to eradicate ASF in the near-term. Disease impacts, low profitability, and high risk are contributing to large-scale closure of hog farms and disincentivizing restocking by remaining farms. Lower domestic pork production will increase demand for imports in 2019, forecast to reach a record 2.2 million tons. Despite gains in imports, pork consumption will decline to a 10-year low due to lower domestic supplies and reduced demand.

Official ASF Outbreaks Slow while Hog Inventory Plummets 17 percent

China has reported 123 outbreaks in 30 provinces through April 8, 2019, covering nearly all of mainland China. The number of outbreaks peaked in November and December but declined thereafter, reaching 7 in March. While official data on cull levels account for a fraction of China's total hog supply, unofficial reports from China suggest far greater losses. The rapid and wide geographic spread of outbreaks, the extreme density of hog production, and lack of biosecurity across many farms may imply a greater incidence of disease.

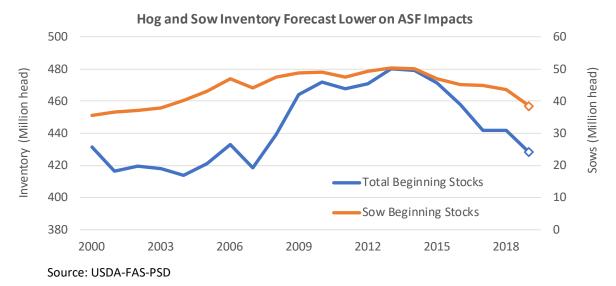
While exact losses are impossible to calculate, monthly data published by China's Ministry of Agriculture and Rural Affairs indicate that producers began liquidating during the fall and accelerated during the first quarter of 2019. The sow herd at the end of February 2019 was down 19 percent from a year earlier while total hogs were down 17 percent. The continued decline of the sow herd implies that pig supply will decline rapidly during the remainder of 2019 and into 2020, notwithstanding aggressive rebuilding. Despite a recent slowing of outbreaks, ASF remains a problem and there is little indication that producers have begun to restock. Authorities have sought to speedily clear quarantine zones and reduce the transit restrictions that affected markets last year. However, producers still face significant risk in whether they will be able to market their hogs when ready.



Livestock and Poultry: World Markets and Trade

Hog Inventory Forecast Down Nearly 20 Percent by Year End

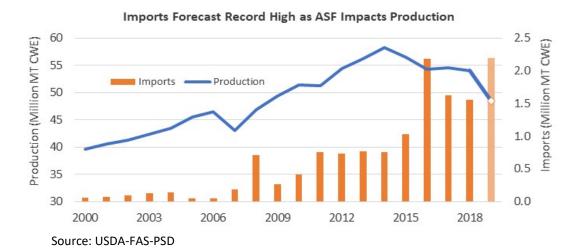
Total hog supply is expected to plummet during 2019, although the magnitude of the decline is highly uncertain. In January 2019, China's hog inventory was estimated at 428.1 million head, down 3 percent from one year earlier. By the end of 2019, USDA forecasts that the herd will drop to 350 million, down 18 percent. This would be the lowest level since the 1980s, although pork production will only fall to a decade's low due to expected gains in carcass weights. Lower inventory reflects the continued exit and slow pace of repopulation of small- and medium-sized farms. Small producers, which account for nearly half of China's hog production, remain at greatest risk in the current environment.



Adapting to ASF will necessitate substantial biosecurity upgrades and capital to restock. Hog prices in many regions have been too low to cover these costs. After August, hog prices in some regions fell below 10 yuan/kg while national prices averaged just below 14 yuan/kg. The break-even cost of production for small producers is approximately 15 yuan/kg. Only recently have national hog prices exceeded the break-even cost for most smaller producers, but price variations between regions are still significant. The increase in hog prices will incentivize expansion, mostly for larger operations with lower costs and a stronger financial footing. High interest rates and difficulty of securing capital will limit expansion for many producers, while upgrade costs may also prove uneconomical.

Pork Consumption to Fall to 5-Year Lows

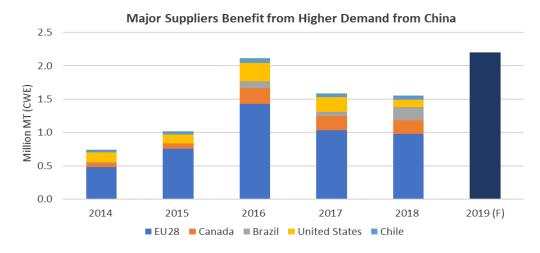
Slaughterhouses are expected to process over 70 million fewer animals in 2019, driving a major reduction in pork output. Productivity gains will offset some of the decline in pork production, but pork consumption will be constrained by lower supplies. Supply will be the major limiting factor for consumption, but demand may also decline in response to ASF. Many consumers have reduced or stopped eating pork due to food safety concerns, despite a lack of human health impact. To appease concerned consumers, businesses, schools, and other institutions have announced that they will not serve pork. As pork supply diminishes, national pork prices are expected to rise and further suppress pork demand. Consumers are expected to shift demand to other proteins, especially chicken and other poultry meat, but also seafood, lamb, and beef. While pork will remain the top-consumed protein, other meats are expected to benefit from both lower supply and lower demand for pork.



Imports Forecast Record High in 2019

Pork imports are expected to rise in response to lower supplies and higher domestic pork prices. Imports are forecast 41 percent higher at 2.2 million tons, just above the previous record of 2.181 million tons in 2016. China has steadily increased its imports over the past 10 years and is now the top importer, accounting for about one-quarter of global imports. Imports typically rise and fall inversely to domestic production, but the long-term trend is up.

The magnitude of increased demand for imported pork is highly dependent on disease impacts and pork demand, but previous disease outbreaks give clues. In 2007, pork production declined 7 percent due to the outbreak of porcine reproductive and respiratory syndrome (PRRS). Imports more than tripled in both 2007-2008 in response to the shortfall. Since then, China has imported larger and larger volumes of pork due to disease outbreaks and other production downturns. Another disease, porcine epidemic diarrhea virus (PEDv) also caused a bump-up in imports in 2011, increasing 83 percent after a marginal production decline. More recently, production fell 4 percent in 2016 due to a combination of low prices and government efforts to control pollution through farm closures. Imports more than doubled that year, reaching the record 2.181 million tons.



Source: IHS Connect and USDA-FAS-PSD

In each of these cases, imports have only partially offset declines in domestic production due to the size of the market and other constraints. Cold chain remains underdeveloped in China, especially outside of major cities. Consumers typically consume pork in a warm or fresh state, limiting demand for chilled and frozen pork available in the global market. A transition to further use of chilled and frozen product is ongoing but there may be limits in the short-term. During a record year, imports at most account for 4 percent of consumption. Global markets are unable to supply the amount of pork that China would need to balance a disease-induced production drop. However, import demand will be up notably and China's top 3 suppliers – the European Union, Canada, and Brazil – are expected to benefit most.

- The European Union, as the world's top exporter and second largest producer after China, has
 the greatest potential to boost exports to China. EU pork accounted for 63 percent of China's
 imports in 2018. However, the EU continues to struggle with ASF itself, limiting exports from
 some Member States. Competition for EU pork will also increase, as China must bid product
 away from higher-income neighbors including Japan and Korea.
- Brazil has rapidly increased its market-share in China and is well-positioned to capture new sales. After losing access to its top market Russia at the end of 2017, Brazil shifted pork exports to China. Market share in China increased from 4 percent in 2017 to 13 percent in 2018, offsetting lower shipments from the EU and United States. Competition for Brazilian pork is expected to be stronger in 2019 with renewed market access to Russia increasing demand. However, China is likely to bid product away from some of Brazil's more price-sensitive markets.
- Canada remains another strong player in China, accounting for 14 percent of China's imports in 2018. Exports to China are likely to increase significantly, but Canada will be constrained by relatively modest growth in supplies relative to other countries and strong demand from other buyers, notably Mexico.
- The United States will play a definitive role in supplying additional pork to China this year with export sales already accelerating. However, retaliatory tariffs continue to be a deterrent. Whether U.S. pork is competitive with tariffs is dependent on relative prices of U.S., Chinese, and competitors' pork. As other exporters shift supplies from third countries to China, U.S. pork may also benefit indirectly from shifting trade flows.

ASF Impacts to Persist

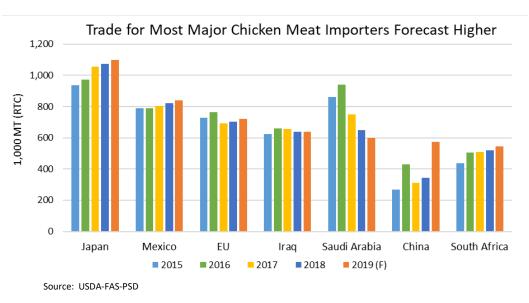
China's recovery from ASF is likely to take several years, during which time the hog industry will undergo significant change. Small farms are likely to continue to exit given high risk and uncertain profitability. Large producers will be better positioned to expand due to higher access to capital, subsidies, and ability to implement strong biosecurity practices. Adoption of vertically-integrated production is likely to accelerate as producers seek to reduce risk along the supply chain. The share of production from small farms will decline relative to large farms, but the remaining farms will be larger and better equipped to handle future disease outbreaks. However, in the short-term, the industry will contract and pork output decline. Lower supplies are expected to drive a major shift in pork consumption and lead to a significant boost in imports. These stronger imports will create a major uptick in global demand in 2019, driving global hog prices up and leading to record exports for major traders.

Chicken Meat

Global production is forecast 3 percent higher in 2019 to a record 98.4 million tons. The strongest growth rate in 5 years is largely supported by gains in China but also by all major producers. China demand will be robust as outbreaks of African Swine Fever (ASF) spur consumers to turn toward other protein sources and elevated chicken meat prices will fuel expansion. However, China continues to be challenged by Highly-Pathogenic Avian Influenza (HPAI)-related bans which limit the supply of imported genetic stock, constraining additional growth. Record production in Brazil, the United States, and the European Union (EU) will be fostered by relatively low feed prices, rising domestic consumption and modest global demand. Brazil consumption will be bolstered by increasing GDP and lower inflation. Chicken meat's share of EU meat consumption continues to increase on price and convenience advantages.

Global exports are forecast 3 percent higher in 2019 to a record 11.6 million tons. Brazil and Thailand will make the greatest advances as HPAI-related restrictions prevent other suppliers from capturing the substantial gain in China imports. As brisk China demand outpaces increasing domestic production, imports are forecast to surge nearly 70 percent in 2019 and account for nearly two-thirds of the growth in world trade. Expansion in Turkey will also be significant, fueled largely by additional regional shipments. Growth by Ukraine and the United States will be more modest, limited by gains in its traditional markets.

U.S. production and exports: Production is expected to rise 1 percent to a record 19.5 million tons in 2019 primarily due to domestic demand. Exports are forecast 1 percent higher to 3.3 million tons although still failing to recover to 2014 levels due to HPAI-related restrictions by China.



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Chicken Meat Production - Selected Countries Summary 1,000 Metric Tons (Ready to Cook Equivalent)

	1,000 Me	etric Tons (Ready	to Cook Equivale	nt)		
	2015	2016	2017	2018	2019	2019
					Oct	Apr
Production						
Brazil	13,547	13,523	13,612	13,355	13,800	13,63
China	13,561	12,448	11,600	11,700	12,000	12,65
European Union	10,890	11,560	11,912	12,200	12,470	12,47
India	4,115	4,427	4,640	4,855	5,100	5,10
Russia	4,222	4,328	4,617	4,872	4,780	4,90
Mexico	3,175	3,275	3,400	3,485	3,600	3,60
Thailand	2,692	2,813	2,990	3,170	3,250	3,28
Turkey	1,961	1,925	2,188	2,225	2,275	2,33
Argentina	2,085	2,119	2,150	2,110	2,180	2,12
Colombia	1,481	1,538	1,627	1,679	1,730	1,75
Others	15,415	15,786	15,948	16,488	16,908	16,99
Total Foreign	73,144	73,742	74,684	76,139	78,093	78,83
United States	18,208	18,510	18,938	19,361	19,709	19,54
Total	91,352	92,252	93,622	95,500	97,802	98,38
Total Dom. Consumption						
China	13,428	12,492	11,475	11,595	11,900	12,80
European Union	10,441	11,047	11,279	11,474	11,650	11,73
Brazil	9,710	9,637	9,768	9,671	10,026	9,86
India	4,108	4,424	4,638	4,852	5,095	5,09
Russia	4,427	4,451	4,718	4,947	4,800	4,96
Mexico	3,960	4,061	4,198	4,301	4,454	4,43
Japan	2,510	2,587	2,688	2,761	2,908	2,80
Thailand	2,072	2,129	2,226	2,345	2,355	2,35
Argentina	1,899	1,969	1,978	1,997	2,045	2,00
South Africa	1,754	1,781	1,778	1,835	1,895	1,90
Others	20,117	20,841	21,284	21,666	22,315	22,18
Total Foreign	74,426	75,419	76,030	77,444	79,443	80,14
United States	15,265	15,510	15,823	16,185	16,531	16,32
Total	89,691	90,929	91,853	93,629	95,974	96,46

Notes: Chicken paws are excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Chicken Meat Trade - Selected Countries Summary 1,000 Metric Tons (Ready to Cook Equivalent)

	1,000 ME	etric Ions (Ready	to Cook Equivale	iit <i>)</i>		
	2015	2016	2017	2018	2019	2019
					Oct	Apr
otal Imports						
Japan	936	973	1,056	1,074	1,175	1,100
Mexico	790	791	804	820	860	840
European Union	730	763	693	703	680	720
Iraq	625	661	656	639	640	640
Saudi Arabia	863	939	750	650	675	600
China	268	430	311	342	375	57!
South Africa	436	504	508	521	545	545
United Arab Emirates	375	382	380	395	415	400
Philippines	205	244	266	320	340	35!
Angola	221	205	267	317	340	30
Others	3,217	3,426	3,563	3,510	3,666	3,559
Total Foreign	8,666	9,318	9,254	9,291	9,711	9,63
United States	60	61	59	64	64	6
Total	8,726	9,379	9,313	9,355	9,775	9,698
otal Exports						
Brazil	3,841	3,889	3,847	3,687	3,775	3,77!
European Union	1,179	1,276	1,326	1,429	1,500	1,46
Thailand	622	690	757	835	900	93
Turkey	292	263	357	418	400	48
China	401	386	436	447	475	42.
Ukraine	158	236	264	317	350	35
Belarus	135	145	150	166	185	15
Russia	71	104	124	128	180	13
Argentina	187	158	178	124	145	13
Canada	133	134	134	124	130	130
Others	353	351	312	319	331	342
Total Foreign	7,372	7,632	7,885	7,994	8,371	8,32
United States	2,932	3,086	3,140	3,244	3,248	3,272
Total	10,304	10,718	11,025	11,238	11,619	11,594

Notes: Chicken paws are excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Notes to Readers

The *Livestock and Poultry: World Markets and Trade* circular is designed to give a snapshot of the current situation among the major players in world beef, pork, and chicken meat trade.

Data Revisions in PSDs for Years Prior to 2017:

Revisions are made based on new and/or additional information.

Commodity/Attribute	Years	Countries
Cattle		
Stocks	2007-2016	China
Beef		
Production	2007-2016	Algeria, Angola, China, Peru, Russia, Saudi Arabia
Trade	2009-2016	Angola, Gabon, Iran, Saudi Arabia, South Africa, Venezuela
Swine		
Stocks	2009-2016	China, Russia
Pork		
Production	2009-2016	China, Congo (Kinshasa), Cote d'Ivoire, Cuba, Honduras,
FIGURETION	2009-2010	Montenegro, Panama, Serbia, Singapore, Uruguay
Trade	2014-2016	Chile, European Union, Macedonia
Chicken Meat		
Production	2010-2016	Congo (Kinshasa), Haiti, Yemen
Trade	1999-2016	Benin, India, Saudi Arabia, South Africa, Taiwan, UAE

Assumptions

Diseases: Forecast reflects disease (African Swine Fever, Avian Influenza, Bovine Spongiform Encephalopathy, etc.) policies/restrictions in place as of April 9, 2019 and assumes their continuation.

Conversion Rates and HS Codes

	Beef & Veal	Pork	Chicken Meat
Conversion Rate	1.4	1.3	None
HS Codes	Fresh/Chilled: 0201 Frozen: 0202	Fresh/Chilled: 020311, 020312, 020319 Frozen: 020321, 020322, 020329	Fresh/Chilled: 020711, 020713 Frozen: 020712, 020714
	Processed: 021020 & 160250	Processed: 021011, 021012, 021019, 160241, 160242, 160249	Processed: 160232

Note: There are several exceptions by country/product. In general, chicken paws are excluded. Also, beef and veal estimates include meat of other bovines for certain countries. In particular, Indian estimates include carabeef (water buffalo).

Technical Notes

CWE/PWE: All quantities (beef and pork) noted are in Carcass Weight Equivalent (CWE) unless otherwise noted as Product Weight Equivalent (PWE). CWE is the weight of an animal after slaughter and removal of most internal organs, head, and skin. PWE is the actual weight of the meat product exported.

RTC (Ready-to-Cook): RTC means any slaughtered poultry free from protruding pinfeathers and vestigial feathers (hair or down), from which the head, feet, crop, oil gland, trachea, esophagus, entrails, and lungs have been removed, and from which the mature reproductive organs and kidneys may have been removed, and with or without the giblets, and which is suitable for cooking without need of further processing Ready-to-cook poultry also means any cut-up or disjointed portion of poultry or other parts of poultry, such as reproductive organs, head, or feet that are suitable for cooking without need of further processing.

Livestock and Poultry: World Markets and Trade

FAS Reports from Overseas Offices

The *Livestock and Poultry: World Markets and Trade* circular is based on post reports submitted since January 2019 and on available secondary information. The individual country reports can be obtained on FAS Online at: http://gain.fas.usda.gov/Pages/Default.aspx.

PSD Online

The entire USDA PSD database is available online at: http://www.fas.usda.gov/psdonline.

Additional Resources

Please refer to the USDA-FAS Dairy, Livestock and Poultry website at: http://www.fas.usda.gov/commodities/livestock-and-meats for additional data and analysis.

Situation and outlook information on U.S. livestock and poultry can be obtained from the USDA-Economic Research Service at: https://www.ers.usda.gov/topics/animal-products/.

Future Releases and Contact Information

Please visit http://www.fas.usda.gov/data/livestock-and-poultry-world-markets-and-trade to view archived and future releases. The next release of this circular will be in October 2019.

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