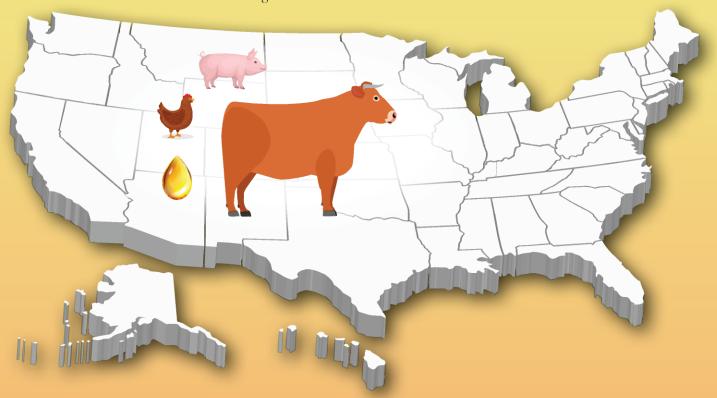
# **US Market Report**

Demand for U.S. rendered products is strong, prices are high and key export markets are open even as supply chain disruptions, economic uncertainty and political tensions persist.

By Dana Johnson Downing, NARA Vice President of International Programs



n 2021, the United States and the world experienced another turbulent year with political and economic fallout from events that unfolded in 2020, most notably the COVID-19 pandemic and the U.S. presidential election, in which former Vice President Joe Biden defeated incumbent President Donald Trump.

As last year began, COVID-19 was still very front-of-mind as public health officials began rolling out vaccines using a prioritization system based on age, occupation and other factors. Meanwhile, political division was reaching a boiling point fueled by claims of widespread voter fraud and a stolen election.

Political tensions were on the rise in other countries last year as well. The Taliban returned to power in Afghanistan as the U.S. withdrew its military presence after 20 years of fighting and peacekeeping efforts, China tightened its grip on Hong Kong, and Russia began a military build up along its border with Ukraine.

Here at home in the United States, plans for reopening the economy resulted in a nationwide patchwork of rules for businesses and residents and months of trial and error, as some sectors were reopened only to close and reopen again later as coronavirus infection rates rose and fell throughout the year. Meanwhile, essential businesses like packinghouses and rendering facilities had to remain open while dealing with the scarcity of workers, rising input costs, port congestion and a complex maze of regulatory requirements.

The increased demand for low-carbon feedstocks in 2021 was apparent as imports of tallow topped 333,300 mt, up more than 37% from 2020, marking the first year the United States was a net importer of tallow. To put this in perspective, since 2016, imports of tallow have shot up a whopping 322%.

The pandemic ignited a collective reassessment of job satisfaction, spawning a steep rise in retirements, a skills gap, and worker demands for greater flexibility, higher wages and fringe benefits such as childcare and educational benefits. While news headlines about workforce shortages in health care, transportation, food processing and the service industry became commonplace, white-collar jobs and the public sector were not immune to workforce turnover in 2021.

Regulatory agencies like the U.S. Department of Agriculture's Animal and Plant Health Inspection Service saw a steep rise in retirements during the pandemic and had difficulty recruiting new professionals to backfill the vacant positions. On-site inspections at animal facilities

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Table 1

	Avera	ge Ann	ual Pr	ices o	f Selec	t Rend	ered Pr	oducts	(\$/MT)	, 2008-	2021					
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	21-22
FATS	BFT Packer - Chicago	\$753	\$553	\$737	\$1,095	\$963	\$887	\$801	\$581	\$638	\$682	\$556	\$600	\$678	\$1,254	85%
l	Choice White Grease - Mo. River	\$729	\$511	\$657	\$1,020	\$926	\$846	\$711	\$498	\$537	\$549	\$463	\$512	\$534	\$1,066	100%
l	Yellow Grease - Mo. River	\$604	\$448	\$577	\$932	\$788	\$727	\$612	\$462	\$505	\$524	\$408	\$466	\$461	\$893	94%
	Poultry Fat - Mid South	\$709	\$510	\$628	\$992	\$864	\$793	\$660	\$502	\$546	\$605	\$566	\$564	\$558	\$1,038	86%
	Edible Tallow - Chicago	\$840	\$608	\$775	\$1,176	\$1,068	\$946	\$865	\$638	\$714	\$762	\$690	\$748	\$828	\$1,444	74%
	Lard - Chicago	\$445	\$631	\$849	\$1,093	\$1,279	\$1,081	\$959	\$670	\$708	\$729	\$718	\$683	\$820	\$1,413	72%
PROTEIN	MBM - Ruminant Mo. Riv	\$398	\$406	\$364	\$413	\$473	\$464	\$502	\$359	\$294	\$273	\$263	\$215	\$239	\$338	41%
l	MBM - Porcine Mo. Riv	\$424	\$441	\$387	\$462	\$552	\$527	\$556	\$377	\$314	\$314	\$308	\$234	\$285	\$389	37%
l	Blood Meal Rum - Mo. Riv	\$898	\$829	\$818	\$949	\$1,122	\$1,232	\$1,580	\$1,070	\$857	\$931	\$790	\$714	\$853	\$1,035	21%
l	Blood Meal Porcine - Midwest	\$1,086	\$974	\$937	\$1,047	\$1,214	\$1,308	\$1,643	\$1,086	\$899	\$968	\$822	\$732	\$910	\$1,136	25%
l	PBM 57 pro - MidSouth	\$536	\$507	\$448	\$524	\$594	\$582	\$610	\$447	\$330	\$306	\$295	\$266	\$277	\$377	36%
l	PBM - 64 pro - MidSouth	\$747	\$761	\$742	\$795	\$919	\$821	\$871	\$602	\$614	\$688	\$721	\$577	\$698	\$828	19%
	Feathermeal - Midsouth	\$532	\$594	\$540	\$565	\$715	\$701	\$772	\$521	\$391	\$437	\$497	\$390	\$347	\$533	53%

Source: The Jacobsen, Ryan Standard & Chloe Krimmel



were suspended in 2020 to ensure worker safety, and although inspections eventually resumed, a backlog of facility inspections and related paperwork continued throughout 2021 and into 2022.

Even amid these supply chain disruptions, economic uncertainty and political tension, the U.S. rendering industry is well-situated as demand for rendered products is strong, prices are high and key export markets are open. The following is a review of the 2021 market for U.S. rendered products.

#### **Domestic Developments**

According to the National Agricultural Statistics Service, total U.S. cattle slaughter in 2021 was 33.8 million head, up more than 3% from 2020, showing a return to the prepandemic upswing in the cattle cycle that began in 2016. Cattle slaughter has increased 5% in the last five years; however average annual liveweight dipped slightly from 1,373 pounds in 2020 to 1,371 in 2021. Even so, it shows a steady average 5% gain over the past 10 years.

Hog slaughter was 129 million head, down 2% from the prior year. Annual hog slaughter has risen 6% in the past five years and 14% in the past 10 years. Average hog liveweight was 288 pounds in 2021, down a pound from a year earlier.

At 9.32 billion head, chicken slaughter was down by just 0.2% from the 2020 record, with a 3% gain over the last five years and 9% over the last 10 years. The broiler and mature chicken liveweight increased from 6.41 to 6.46 pounds, continuing the upward trend of heavier birds. Turkey slaughter fell more than 3% from 223 million birds in 2020 to 215 million last year, while average annual liveweight showed a slight bump from 32.25 pounds in 2020 to 32.28 pounds in 2021. After falling to a 10-year low of 22.4 million birds slaughtered in 2020, duck production seems to be rebounding with an 8% increase to 24.3 million birds in 2021.

U.S. rendered product production statistics in Table 2 are compiled using the USDA/NASS Fats and Oils: Oilseed Crushings, Production, Consumption, and Stocks Annual Summary. However, the yellow grease and used cooking oil

figures are based on North American Renderers Association and industry estimates.

In 2021, the production of all rendered product was 10.5 million metric tons (mmt), down just 0.6% from the prior year. Total U.S. fat production last year was 6 mmt, up 1% from 2020. Of that, total tallow production increased to 2.8 mmt, an increase of nearly 10% in 2021. Production of inedible tallow was 1.7 mmt, a gain of more than 11%; technical tallow was 606,100 metric tons (mt), up nearly 6%; and edible tallow was 466,800 mt, an increase of nearly 10%.

Last year saw record U.S. imports of rendered fats rise to 494,500 mt, a leap of more than 40% from 2020. This steep rise in imports can be attributed to continued growth in the renewable fuel sector, which includes renewable diesel, biodiesel and coprocessed diesel. Renewable diesel receives some of the most favorable greenhouse gas reduction scores among existing programs, such as the federal Renewable Fuel Standard, the California Low Carbon Fuel Standard, and a new program adopted by Oregon in 2020.

As a result, participants in these state and federal programs are increasingly using renewable diesel to meet rising renewable fuel targets. The increased demand for low-carbon feedstocks in 2021 was apparent as imports of tallow topped 333,300 mt, up more than 37% from 2020, marking the first year the United States was a net importer of tallow. To put this in perspective, since 2016, imports of tallow have shot up a whopping 322%. Similarly, imports of yellow grease/used cooking oil rose to 129,500 mt in 2022, an increase of more than 55% from 2020.

A year ago, a January 2021 article in *Biodiesel Magazine* titled "Renewable Diesel's Rising Tide" reported the production and proposed expansion of 14 renewable diesel plants in the U.S., including four that were already operational. By years end, a December 2021 article in the same magazine titled "Pillars of New Production" reported that the renewable diesel and sustainable aviation fuel plant list has now swelled to 26 (including those that are operational, expanding, under construction and proposed). When fully realized in the coming

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Production	US Production, Consumption and Export of Rendered Products for 2016-2021								
Production	Category	2016	2017	2018	2019	2020	2021	% Change 2021/2020	
Tallow		2010	2011			2020	2021	202172020	
Ineethic Fallow		2,559.5	2,594.9			2,601.9	2,860.8	9.9%	
Technical Tallow								11.5%	
Martie Grease   786, 6   750,5   736,8   736,8   734,2   697,6   750,0   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   131   74   74   74   74   74   74   74   7	Technical Tallow	562.5	-			•	•	5.8%	
Land	Edible Tallow	409.6	409.6	446.5	452.1	426.2	466.8	9.5%	
Choice White Grease   6203   592.3   587.4   610.9   596.6   565.9   565.9	White Grease	<u>787.6</u>	<u>750.5</u>	<u>736.8</u>	<u>768.9</u>	<u>734.2</u>	<u>697.6</u>	-5.0%	
Yellow Grease/Used Cooking Oil*	Lard	167.3	158.2	149.4		137.6		-4.3%	
Poultry Fat		620.3		587.4		596.6	565.9	-5.1%	
Other Grease         336.0         360.2         285.9         209.4         207.2         299.2         10.6           Sub-total Fats and Greases         6,115.1         6,138.2         6,138.2         6,135.0         6,227.3         6,035.2         6,094.0         1.09           Meat & Bone Meal         2,711.5         2,790.2         2,688.2         2,694.4         2,475.5         2,518.8         1.38           Poultry By-Product Meal         1,382.1         1,438.8         1,368.7         1,548.6         1,580.3         1,515.1         4.1         4.1           Feather Meal         527.2         522.0         464.5         601.0         553.3         1,515.1         4.1         4.1         4.1         4.1         4.2         4.1         4.3         4.6         4.0         4.5         4.0         4.6         60.0         2.5         4.4         4.6         6.0         2.2         4.4         4.6         4.0         2.7         4.8         6.0         2.2         2.4         1.2         2.2         2.9         2.9         1.7         8.3         3.7         4.3         4.2         2.2         2.7         2.7         4.73         4.0         4.0         5.5         2.1         1.								0.3%	
Sub-total Fats and Greases								-16.5%	
Meat & Bone Meal   2,711.5   2,790.2   2,658.2   2,694.4   2,475.5   2,518.8   1.89   Poultry By-Product Meal   1,382.1   1,438.8   1,368.7   1,548.6   1,580.3   1,515.1   -4.11   Feather Meal   527.2   522.0   464.5   601.0   553.5   452.1   -18.3   Sub-total Protein Meals   4,620.8   4,751.0   4,491.3   4,844.0   4,609.2   4,486.0   -2.7   TOTAL Rendered Products   10,736.9   0,889.2   10,648.3   11,071.3   10,644.4   10,580.0   -0.67   Inports   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1,776.0   1								10.6%	
Poultry By-Product Meal									
Sub-total Protein Meals									
Sub-total Protein Meals			•						
TOTAL Rendered Products									
Tallow							-	-0.6%	
Tallow 78.9 99.8 139.3 192.0 243.1 333.3 97.1 White Grease 28.8 27.0 35.8 27.1 23.0 30.4 32.0 Lard 4.7 5.8 6.9 6.2 5.2 7.7 47.3 Choice White Grease 24.1 21.2 28.9 20.9 17.8 22.7 27.5 Yellow Grease/Used Cooking Oil 23.0 38.7 62.8 87.7 83.1 129.5 55.8 Poultry Fat 0.6 1.9 0.6 3.5 2.1 1.3 -393.5 Sub-total Fats and Greases 131.2 167.4 238.6 310.3 351.4 494.5 40.7 Meat & Bone/Poultry/Porcine Meal 8.2 83.6 108.9 117.4 114.0 92.5 -18.8 Feather Meal 0.6 0.7 0.4 0.3 0.8 2.1 162.5 Sub-total Protein Meals 82.8 84.3 109.3 117.7 114.0 92.5 -18.8 Feather Meal 0.6 0.7 0.4 0.3 0.8 2.1 162.5 Sub-total Protein Meals 82.8 84.3 109.3 117.7 114.0 94.6 17.6 TOTAL Rendered Products 214.0 251.7 347.9 428.0 466.2 589.1 26.4 Consumption  Blodiesel/Renewable Diesel/Coprocess NA NA NA NA NA NA NA Q.609.4 Tallow NA		10,730.3	10,003.2	10,040.3	11,0/1.3	10,044.4	10,300.0	-0.070	
White Grease         28.8         27.0         35.8         6.9         6.2         5.2         7.7         47.3           Lard         4.7         5.8         6.9         6.2         5.2         7.7         47.3           Choice White Grease         24.1         21.2         28.9         20.9         11.8         22.7         27.5           Yellow Grease/Used Cooking Oil         23.0         38.7         62.8         87.7         83.1         129.5         55.8           Poultry Fat         0.6         1.9         0.6         35.5         2.1         1.3         -39.3           Sub-total Fats and Greases         131.2         167.4         238.6         310.3         30.8         2.1         129.5         148.5           Feather Meal         0.6         0.7         0.4         0.3         0.8         2.1         125.5           Feather Meal         0.6         0.7         0.4         0.3         0.8         2.1         125.5           Sub-total Protein Meals         82.8         84.3         109.3         117.7         114.8         94.6         127.5           TOTAL Rendered Products         214.0         251.7         347.9         428.0		78.9	99.8	139.3	192.0	243.1	333.3	37.1%	
Lard								32.0%	
Choice White Grease   24.1   21.2   28.9   20.9   17.8   22.7   27.5   Yellow Grease/Used Cooking Oil   23.0   38.7   62.8   87.7   83.1   129.5   55.8   Poultry Fat   0.6   0.6   1.9   0.6   3.5   2.1   1.3   -39.3   Sub-total Fats and Greases   131.2   167.4   238.6   310.3   351.4   494.5   40.7   Meat & Bone/Poultry/Porcine Meal   82.2   83.6   108.9   117.4   114.0   92.5   18.5   Teather Meal   0.6   0.7   0.4   0.3   0.8   21.1   162.5   18.5   Sub-total Protein Meals   82.8   84.3   109.3   117.7   114.8   94.6   17.6   TOTAL Rendered Products   214.0   251.7   347.9   428.0   466.2   589.1   26.4   Consumption   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   26.4   2								47.3%	
Yellow Grease/Used Cooking Oil   23.0   38.7   62.8   87.7   83.1   129.5   55.8   Poultry Fat   0.6   1.9   0.6   3.5   2.1   1.3   39.3   59.5   Sub-total Fats and Greases   131.2   167.4   238.6   310.3   351.4   494.5   407.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5   64.5	Choice White Grease							27.5%	
Poultry Fat   0.6   1.9   0.6   3.5   2.1   1.3   3.93.								55.8%	
Meat & Bone/Poultry/Porcine Meal		0.6	1.9	0.6	3.5	2.1	1.3	-39.3%	
Feather Meal	Sub-total Fats and Greases	131.2		238.6		351.4	494.5	40.7%	
Sub-total Protein Meals   82.8   84.3   109.3   117.7   114.8   94.6   -17.6	Meat & Bone/Poultry/Porcine Meal	82.2	83.6	108.9	117.4	114.0	92.5	-18.9%	
TOTAL Rendered Products	Feather Meal	0.6	0.7	0.4		0.8	2.1	162.5%	
Biodiesel/Renewable Diesel/Coprocess   NA	Sub-total Protein Meals	82.8	84.3	109.3	117.7	114.8	94.6	-17.6%	
Biodiesel/Renewable Diesel/Coprocess   NA		214.0	251.7	347.9	428.0	466.2	589.1	26.4%	
Animal Fat NA	•								
Tallow NA NA NA NA NA NA NA NA 139.4 Poultry Fat NA NA NA NA NA NA NA 139.4 White Grease NA									
Poultry Fat	, , , , , , , , , , , , , , , , , , , ,								
White Grease         NA         NA         NA         NA         NA         NA         314.8           Other         NA									
Other Recycled Oils         NA         NA         NA         NA         NA         NA         NA         1,535.2         Percycled Oils         NA         NA         NA         NA         NA         NA         NA         NA         1,535.2         Percycled Oils         NA									
Recycled Oils									
Yellow Grease/Used Cooking Oil         NA         NA         NA         NA         NA         1,126.3           Sub-Total         1,126.3         1,126.3         1,126.3         1,126.3           Meat & Bone/Poultry/Porcine Meal         3,471.0         3,505.7         3,238.0         3,313.7         3,063.3         3,028.0         -1.29           Feather Meal         464.2         442.6         355.0         510.9         464.2         326.8         -29.6           Sub-Total         3,935.2         3,948.3         3,593.0         3,824.5         3,527.5         3,354.7         -4.90           Exports           Inedible Tallow/Technical Tallow         283.3         324.6         326.9         301.5         299.8         187.9         -37.3           Yellow Grease         286.2         300.2         360.7         439.0         766.7         762.7         -0.5           Edible Tallow         120.1         77.7         117.9         121.6         103.0         113.6         10.4           Lard         19.1         17.2         16.8         22.5         18.1         81.4         349.8           Choice White Grease         0.4         0.8         0.4         0.7									
Sub-Total	•								
Meat & Bone/Poultry/Porcine Meal         3,471.0         3,505.7         3,238.0         3,313.7         3,063.3         3,028.0         -1.29           Feather Meal         464.2         442.6         355.0         510.9         464.2         326.8         -29.6           Sub-Total         3,935.2         3,948.3         3,593.0         3,824.5         3,527.5         3,354.7         -4.99           Exports           Inedible Tallow/Technical Tallow         283.3         324.6         326.9         301.5         299.8         187.9         -37.3           Yellow Grease         286.2         300.2         360.7         439.0         766.7         762.7         -0.5           Edible Tallow         120.1         77.7         117.9         121.6         103.0         113.6         10.4           Lard         19.1         17.2         16.8         22.5         18.1         81.4         349.8           Choice White Grease         0.4         0.8         0.4         0.7         5.9         0.1         -98.1           Poultry Fat         14.7         16.1         14.8         12.9         19.0         17.0         -10.6           Sub-total         723.8		IVA	IVA	IVA	IVA	IVA			
Feather Meal         464.2         442.6         355.0         510.9         464.2         326.8         -29.6           Sub-Total         3,935.2         3,948.3         3,593.0         3,824.5         3,527.5         3,354.7         -4.90           Exports           Inedible Tallow/Technical Tallow         283.3         324.6         326.9         301.5         299.8         187.9         -37.3           Yellow Grease         286.2         300.2         360.7         439.0         766.7         762.7         -0.50           Edible Tallow         120.1         77.7         117.9         121.6         103.0         113.6         10.4           Lard         19.1         17.2         16.8         22.5         18.1         81.4         349.8           Choice White Grease         0.4         0.8         0.4         0.7         5.9         0.1         -98.1           Poultry Fat         14.7         16.1         14.8         12.9         19.0         17.0         -10.6           Sub-total         723.8         736.5         837.6         898.2         1,212.5         1,162.7         -4.15           Meat & Bone/Poultry/Porcine Meal         704.8		3 471 0	3 505 7	3 238 0	3 313 7	3.063.3		-1 2%	
Sub-Total         3,935.2         3,948.3         3,593.0         3,824.5         3,527.5         3,354.7         -4.99           Exports         Inedible Tallow/Technical Tallow         283.3         324.6         326.9         301.5         299.8         187.9         -37.3           Yellow Grease         286.2         300.2         360.7         439.0         766.7         762.7         -0.59           Edible Tallow         120.1         77.7         117.9         121.6         103.0         113.6         10.4           Lard         19.1         17.2         16.8         22.5         18.1         81.4         349.8           Choice White Grease         0.4         0.8         0.4         0.7         5.9         0.1         -98.1           Poultry Fat         14.7         16.1         14.8         12.9         19.0         17.0         -10.6           Sub-total         723.8         736.5         837.6         898.2         1,212.5         1,162.7         -4.19           Meat & Bone/Poultry/Porcine Meal         704.8         806.8         897.7         1,046.8         1,106.4         1,098.4         -0.79           Feather Meal         63.6         80.1	•							-29.6%	
Inedible Tallow/Technical Tallow   283.3   324.6   326.9   301.5   299.8   187.9   -37.3     Yellow Grease   286.2   300.2   360.7   439.0   766.7   762.7   -0.5     Edible Tallow   120.1   77.7   117.9   121.6   103.0   113.6   10.4     Lard   19.1   17.2   16.8   22.5   18.1   81.4   349.8     Choice White Grease   0.4   0.8   0.4   0.7   5.9   0.1   -98.1     Poultry Fat   14.7   16.1   14.8   12.9   19.0   17.0   -10.6     Sub-total   723.8   736.5   837.6   898.2   1,212.5   1,162.7   -4.15     Meat & Bone/Poultry/Porcine Meal   704.8   806.8   897.7   1,046.8   1,106.4   1,098.4   -0.75     Feather Meal   63.6   80.1   109.9   90.5   90.0   127.4   41.5     Sub-total   768.4   887.0   1,007.6   891.8   1,196.5   1,225.9   2.59     TOTAL, All Rendered Products   1,492.2   1,623.5   1,845.2   1,790.0   2,408.9   2,388.5   -0.85     Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.     USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary								-4.9%	
Inedible Tallow/Technical Tallow   283.3   324.6   326.9   301.5   299.8   187.9   -37.3     Yellow Grease   286.2   300.2   360.7   439.0   766.7   762.7   -0.50     Edible Tallow   120.1   77.7   117.9   121.6   103.0   113.6   10.4     Lard   19.1   17.2   16.8   22.5   18.1   81.4   349.8     Choice White Grease   0.4   0.8   0.4   0.7   5.9   0.1   -98.1     Poultry Fat   14.7   16.1   14.8   12.9   19.0   17.0   -10.6     Sub-total   723.8   736.5   837.6   898.2   1,212.5   1,162.7   -4.15     Meat & Bone/Poultry/Porcine Meal   704.8   806.8   897.7   1,046.8   1,106.4   1,098.4   -0.75     Feather Meal   63.6   80.1   109.9   90.5   90.0   127.4   41.5     Sub-total   768.4   887.0   1,007.6   891.8   1,196.5   1,225.9   2.59     TOTAL, All Rendered Products   1,492.2   1,623.5   1,845.2   1,790.0   2,408.9   2,388.5   -0.85     Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.     USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary					,	,			
Yellow Grease       286.2       300.2       360.7       439.0       766.7       762.7       -0.50         Edible Tallow       120.1       77.7       117.9       121.6       103.0       113.6       10.4         Lard       19.1       17.2       16.8       22.5       18.1       81.4       349.8         Choice White Grease       0.4       0.8       0.4       0.7       5.9       0.1       -98.1         Poultry Fat       14.7       16.1       14.8       12.9       19.0       17.0       -10.6         Sub-total       723.8       736.5       837.6       898.2       1,212.5       1,162.7       -4.1°         Meat & Bone/Poultry/Porcine Meal       704.8       806.8       897.7       1,046.8       1,106.4       1,098.4       -0.7°         Feather Meal       63.6       80.1       109.9       90.5       90.0       127.4       41.5         Sub-total       768.4       887.0       1,007.6       891.8       1,196.5       1,225.9       2.59         TOTAL, All Rendered Products       1,492.2       1,623.5       1,845.2       1,790.0       2,408.9       2,388.5       -0.8°         Sources: Trade Data Monitor. US Energy Informatio		283.3	324.6	326.9	301.5	299.8	187.9	-37.3%	
Edible Tallow       120.1       77.7       117.9       121.6       103.0       113.6       10.4         Lard       19.1       17.2       16.8       22.5       18.1       81.4       349.8         Choice White Grease       0.4       0.8       0.4       0.7       5.9       0.1       -98.1         Poultry Fat       14.7       16.1       14.8       12.9       19.0       17.0       -10.6         Sub-total       723.8       736.5       837.6       898.2       1,212.5       1,162.7       -4.1         Meat & Bone/Poultry/Porcine Meal       704.8       806.8       897.7       1,046.8       1,106.4       1,098.4       -0.7         Feather Meal       63.6       80.1       109.9       90.5       90.0       127.4       41.5         Sub-total       768.4       887.0       1,007.6       891.8       1,196.5       1,225.9       2.59         TOTAL, All Rendered Products       1,492.2       1,623.5       1,845.2       1,790.0       2,408.9       2,388.5       -0.89         Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.         USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary								-0.5%	
Choice White Grease         0.4         0.8         0.4         0.7         5.9         0.1         -98.1           Poultry Fat         14.7         16.1         14.8         12.9         19.0         17.0         -10.6           Sub-total         723.8         736.5         837.6         898.2         1,212.5         1,162.7         -4.1           Meat & Bone/Poultry/Porcine Meal         704.8         806.8         897.7         1,046.8         1,106.4         1,098.4         -0.7           Feather Meal         63.6         80.1         109.9         90.5         90.0         127.4         41.5           Sub-total         768.4         887.0         1,007.6         891.8         1,196.5         1,225.9         2.59           TOTAL, All Rendered Products         1,492.2         1,623.5         1,845.2         1,790.0         2,408.9         2,388.5         -0.8           Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.         USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary         NA = Not available         NA = Not available	Edible Tallow							10.4%	
Poultry Fat         14.7         16.1         14.8         12.9         19.0         17.0         -10.6           Sub-total         723.8         736.5         837.6         898.2         1,212.5         1,162.7         -4.1°           Meat & Bone/Poultry/Porcine Meal         704.8         806.8         897.7         1,046.8         1,106.4         1,098.4         -0.7°           Feather Meal         63.6         80.1         109.9         90.5         90.0         127.4         41.5           Sub-total         768.4         887.0         1,007.6         891.8         1,196.5         1,225.9         2.5°           TOTAL, All Rendered Products         1,492.2         1,623.5         1,845.2         1,790.0         2,408.9         2,388.5         -0.8°           Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.         USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary         NA = Not available         NA = Not available         NA = Not available	Lard	19.1	17.2	16.8	22.5	18.1	81.4	349.8%	
Sub-total         723.8         736.5         837.6         898.2         1,212.5         1,162.7         -4.15           Meat & Bone/Poultry/Porcine Meal         704.8         806.8         897.7         1,046.8         1,106.4         1,098.4         -0.75           Feather Meal         63.6         80.1         109.9         90.5         90.0         127.4         41.5           Sub-total         768.4         887.0         1,007.6         891.8         1,196.5         1,225.9         2.59           TOTAL, All Rendered Products         1,492.2         1,623.5         1,845.2         1,790.0         2,408.9         2,388.5         -0.89           Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.         USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary         NA = Not available	Choice White Grease						0.1	-98.1%	
Meat & Bone/Poultry/Porcine Meal       704.8       806.8       897.7       1,046.8       1,106.4       1,098.4       -0.76         Feather Meal       63.6       80.1       109.9       90.5       90.0       127.4       41.5         Sub-total       768.4       887.0       1,007.6       891.8       1,196.5       1,225.9       2.59         TOTAL, All Rendered Products       1,492.2       1,623.5       1,845.2       1,790.0       2,408.9       2,388.5       -0.89         Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.         USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary         NA = Not available								-10.6%	
Feather Meal         63.6         80.1         109.9         90.5         90.0         127.4         41.5           Sub-total         768.4         887.0         1,007.6         891.8         1,196.5         1,225.9         2.59           TOTAL, All Rendered Products         1,492.2         1,623.5         1,845.2         1,790.0         2,408.9         2,388.5         -0.89           Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.         USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary           NA = Not available								-4.1%	
Sub-total 768.4 887.0 1,007.6 891.8 1,196.5 1,225.9 2.59  TOTAL, All Rendered Products 1,492.2 1,623.5 1,845.2 1,790.0 2,408.9 2,388.5 -0.89  Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs.  USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary  NA = Not available	· · · · · · · · · · · · · · · · · · ·							-0.7%	
TOTAL, All Rendered Products 1,492.2 1,623.5 1,845.2 1,790.0 2,408.9 2,388.5 -0.89 Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs. USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary NA = Not available								41.5%	
Sources: Trade Data Monitor. US Energy Information Agency for biodiesel inputs. USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary NA = Not available								2.5%	
USDA NASS - Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks Summary  NA = Not available					•	2,408.9	2,388.5	-0.8%	
NA = Not available						cks Summar	y		
*NADA E L' L-									
TNAKA ESTIMATE	*NARA Estimate								

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Table 3. US Annual Livestock and Poultry Slaughter, 2012-2021

										,	% Change
Specie/Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	21/20
Cattle - thousand head	32,951	32,462	30,266	28,843	30,578	32,189	33,005	33,555	32,786	33,837	3.2%
Hogs - thousand head	113,163	112,077	106,958	115,512	118,220	121,317	124,432	129,913	131,563	128,976	-2.0%
Broilers & Mature Chickens - thousand head	8,576,195	8,648,756	8,669,628	8,822,692	8,908,986	9,050,702	9,160,910	9,339,249	9,346,660	9,325,584	-0.2%
Turkeys - thousand head	250,192	239,404	236,617	232,389	243,255	241,680	236,860	227,660	223,003	215,663	-3.3%
Ducks - thousand head	24,183	24,575	26,368	27,749	27,268	26,628	27,647	27,544	22,484	24,301	8.1%
Source: USDA/National Agriculture Statistics Service											
Specie/Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	21/20
Cattle - liveweight	1,302	1,314	1,330	1,360	1,363	1,349	1,350	1,344	1,373	1,371	-0.1%
Hogs - liveweight	275	276	285	283	282	282	283	285	289	288	-0.3%
Broilers & Mature Chickens - liveweight	5.85	5.92	6.00	6.12	6.16	6.20	6.26	6.32	6.41	6.46	0.8%
Turkeys - liveweight	29.83	30.32	30.39	30.19	30.68	30.90	31.07	32.01	32.25	32.28	0.1%
Ducks - liveweight	6.80	6.85	6.87	6.85	6.85	6.92	6.98	7.03	6.97	6.96	-0.1%

Source: USDA/National Agriculture Statistics Service

Livestock Slaughter Monthly Livestock Slaughter Annual Summary Poultry Slaughter Annual Summary

years, the new production volume could amount to more than 6.6 billion gallons. EPA already forecasts 2022 production at 1.59 billion gallons.

U.S. rendered protein meal production was 4.4 mmt in 2021, down 2.7% from 2020. Production of meat and bone meal (such as porcine, ruminant, and mixed species meals) totaled more than 2.5 mmt last year, up nearly 2% from the previous year. Production of poultry-based meals was 1.5 mmt in 2021, a 4% decrease, and feather meal dropped to 452,100 mt, a decrease of more than 18% from the previous year.

Imports of rendered protein meals were 95,000 mt, down nearly 19% from 2020. The pet food sector remains an important customer for U.S. rendered protein. The domestic demand for rendered animal protein meal continues a downward slide in response to the plant-based diet trend promoted by poultry producers using an all-vegetarian brand promise to try to develop consumer preference for their finished product. Since last year, domestic consumption fell 5% while exports rose 2.5%.

#### **Domestic Outlook**

Demand for U.S. red meat and poultry should remain strong at home and abroad, but skyrocketing retail prices, particularly for beef, are creating some strong headwinds that cannot be ignored. The Biden administration issued aggressive statements in 2021 accusing the meat industry of price gouging and pledged to enforce existing laws and invest in expanded meat and poultry processing capacity.

USDA's Interagency Agricultural Projections Committee brings together analysists from different agencies throughout the department to compile its 10-year projections report – *USDA Agricultural Projections* to 2031. The report estimated both beef and pork production will contract slightly in 2022 and 2023 due to drought and pandemic-related factors but are expected to increase steadily in the following years and achieve 8% growth by 2030.

Meanwhile, poultry slaughter is expected to steadily increase between 2021 and 2031, driven by increasing domestic and foreign demand. This growth will translate to additional production of 728,600 mt of rendered protein meals, and 755,600 mt of rendered fats by 2030, a 16% and 13% increase, respectively.

#### **International Market Conditions**

The global demand for rendered products remains strong, with exports of total rendered product in 2021 at nearly 2.4 mmt, falling only fractionally from 2020; but still up 60% over

the past five years. Traditionally, international market demand for rendered products is driven by inputs for pet food, poultry feed and aquaculture feed. Demand for fat is driven by the same pet food and feed producers, plus the growing biofuel and oleochemical industries. In 2021, Mexico became the largest importer of U.S. rendered product by volume with 541,900 mt, followed by Singapore with 501,000 mt, and Indonesia at 398,311 mt.

The global feed sector continues to grow, driving demand for raw materials such as animal protein meals and fats. According to Alltech's annual feed production publication *Alltech Agri-food Outlook 2022*, feed production grew 2.3% globally over the past year, with an estimated 1.23 mmt produced in 2021, versus 1.20 mmt in 2020. The survey includes data from more than 140 countries and more than 28,000 feed mills. The Asia-Pacific region is the largest regional market for feed production, producing 458,100 mt, a 5.7% increase from 2020; followed by Europe at 266,800 mt, down 1.2%; North America at 252,900 mt, up 1.9%; and Latin America at 178,400 mt, up 0.5% from 2020.

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Table 4. U.S. Exp												
Product/Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/2020
Inedible Tallow	244.000	274 270	222.270	225.042	227.076	4.45.636	400.004	425.000	420.540	400 447	07.055	20.250
Mexico	314,069	271,378	238,079	235,843	227,876	145,636	126,624	136,009	130,519	122,117	97,256	-20.36%
Canada	20,013	12,772	14,841	18,493	20,797	22,600	20,000	35,418	29,840	47,730	60,859	27.51%
Honduras	19,457	24,597	14,097	11,499	9,000	8,240	5,641	3,370	2,300	8,160	11,650	42.77% -53.70%
Morocco Guatemala	16,913 29,584	10,501	5,000	9,000 21,470	7,000 20,449	7,198 20,094	6,450	13,750	13,050	16,199	7,500 3,800	-33.70%
Brazil	29,364	19,117 0	13,332 0	21,470	20,449	20,094	15,249 0	13,608 0	6,800 0	5,600 31,000	3,000	-90.32%
Colombia	8,099	7,199	3,899	6,100	8,000	0	1,856	9,200	4,200	2,400	2,400	0.00%
Dominican Republic	0,033	2,000	2,499	3,000	3,500	4,550	2,750	3,750	1,450	1,250	836	-33.12%
Turkey	90,649	79,495	45,871	59,474	20,898	19,249	7,200	11,260	10,750	15,699	500	-96.82%
Trinidad and Tobago	997	122	179	264	205	78	159	73	34	0	61	30.0270
Nigeria	0	0	0	0	0	0	7,500	10,400	2,000	3,500	0	-100.00%
Singapore	0	5,000	0	5,000	14,275	46,312	119,240	88,421	100,600	46,000	0	-100.00%
Total All Countries	598,355	486,735	382,263	402,548	343,115	283,280	324,586	326,945	301,543	299,769	187,861	-37.33%
Yellow Grease (include		,,	002,200	102,010	0.0,220			020,010	002,010		207,002	
Singapore	706	1,656	2,593	2,675	1,755	1,541	8,110	71,747	169,584	515,957	501,047	-2.89%
United Kingdom	17,999	31,267	40,514	30,116	22,025	63,044	55,477	59,469	68,580	76,665	93,990	22.60%
Mexico	131,831	113,534	95,892	95,574	72,564	50,034	63,372	39,267	48,625	58,400	92,240	57.95%
EU27	204,634	120,762	106,595	123,590	106,041	121,793	120,358	109,091	92,164	77,345	36,942	-52.24%
Dominican Republic	30,460	17,629	18,082	15,518	9,585	10,639	9,652	7,943	7,215	9,908	11,309	14.14%
Canada	26,547	15,604	11,533	10,604	11,716	9,073	7,726	7,968	8,739	7,979	9,417	18.02%
Ecuador	44	25	99	373	48	301	554	1,388	1,410	2,060	3,495	69.66%
China	4,188	572	144	276	965	1,796	1,952	2,330	2,493	3,790	3,173	-16.28%
Jamaica	6630	4802	6991	7300	1310	1,568	1,211	3,511	3,464	2,980	2,094	-29.73%
Honduras	7,236	6,920	3,605	5,890	7,057	6,939	2,167	6,497	3,145	1,590	1,743	9.62%
Colombia India	578 2.488	584 26	388 35	439 141	593 278	1,846 49	743 81	445 112	662	1,060	1,464	38.11%
	2,488 566 246	452,067	35 361,031		278 252,959	49 286,226	300,198	360,682	196 439,045	64 766 727	1,075 762,667	1579.69% -0.53%
Total All Countries  Edible Tallow	566,246	432,067	301,031	333,133	232,339	200,226	300,198	300,082	439,043	766,727	/02,00/	-0.53%
Mexico	54,459	70,205	66,278	35,840	61,076	114,154	72,120	113,525	118,951	101,587	108,885	7.18%
Honduras	0		-	-	-	-		1	-	-	1,675	7.10/0
Guatemala	0	-	-	128	-	-	-	1	_	_	1,500	
Canada	5,283	5,163	4,870	4,807	3,657	5,706	5,552	4,338	2,547	881	1,344	52.55%
Total All Countries	60,043	75,399	71,148	40,783	64,762	120,146	77,678	117,903	121,605	102,963	113,625	10.36%
Lard												
Mexico	32,878	23,487	28,299	18,848	17,691	16,924	15,876	16,173	22,097	17,515	80,631	360.35%
China	0	29	0	0	4	0	0	0	0	0	257	
Canada	1,016	598	596	612	393	988	605	264	259	191	205	7.33%
Total All Countries	34,776	24,826	29,398	21,390	19,768	19,050	17,181	16,825	22,488	18,097	81,377	349.67%
Choice White Grease												
	_	_	_	_	_	_	_	_	_	_		
Ghana	0	0	0	0	0	0	0	0	0	0	77	
Ghana Japan	57	7	0	10	0	0	0	0	0	0	15	AE AEW
Ghana Japan Mexico		7 92	0 33	10 208			0 659	0 295	0 573	0 22		-45.45% -100.00%
Ghana Japan Mexico Honduras	57 910 -	7 92 20	0 33 8	10 208 25	0 27 -	0 67	0 659 -	0 295 -	0 573 -	0 22 5,700	15 12 -	-100.00%
Ghana Japan Mexico Honduras <i>Total All Countries</i>	57	7 92	0 33	10 208	0	0	0 659	0 295	0 573	0 22	15	
Ghana Japan Mexico Honduras	57 910 -	7 92 20	0 33 8	10 208 25	0 27 -	0 67	0 659 -	0 295 -	0 573 -	0 22 5,700	15 12 -	-100.00%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat	57 910 -	7 92 20 1,387	0 33 8 491	10 208 25 <i>639</i>	0 27 - 202	0 67 - 374	0 659 - <i>797</i>	0 295 - 421	0 573 - 661	0 22 5,700 5,909	15 12 - 111	-100.00% -98.12%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada	57 910 -	7 92 20 1,387	0 33 8 491	10 208 25 <i>639</i> 13,072	0 27 - 202	0 67 - 374 9,320	0 659 - 797 10,125 1,597 567	0 295 - 421 8,815	0 573 - 661 7,074	0 22 5,700 5,909 6,538 3,660 2,659	15 12 - 111 5,525	-100.00% -98.12% -15.49%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico	57 910 -	7 92 20 1,387 10,667 0	0 33 8 491 11,065 0	10 208 25 639 13,072 0 458 1,731	0 27 - 202 10,943 0	9,320 958	0 659 - 797 10,125 1,597	0 295 - 421 8,815 2,511 561 1,955	7,074 2,080	0 22 5,700 5,909 6,538 3,660 2,659 2,153	15 12 - 111 5,525 4,016 3,773 1,718	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile	57 910 -	7 92 20 1,387 10,667 0 287 806	0 33 8 491 11,065 0 370 854	10 208 25 639 13,072 0 458 1,731	0 27 - 202 10,943 0 446 2,418	9,320 958 516 2,139	0 659 - 797 10,125 1,597 567 2,545	0 295 - 421 8,815 2,511 561 1,955 4	7,074 2,080 1,003	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987	15 12 - 111 5,525 4,016 3,773 1,718 587	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries	57 910 -	7 92 20 1,387 10,667 0 287	0 33 8 491 11,065 0 370	10 208 25 639 13,072 0 458 1,731	0 27 - 202 10,943 0 446	9,320 958 516	0 659 - 797 10,125 1,597 567	0 295 - 421 8,815 2,511 561 1,955	7,074 2,080 1,003	0 22 5,700 5,909 6,538 3,660 2,659 2,153	15 12 - 111 5,525 4,016 3,773 1,718	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals	57 910 - 2,518 - - - -	7 92 20 1,387 10,667 0 287 806 - 14,536	0 33 8 491 11,065 0 370 854 - 14,895	10 208 25 639 13,072 0 458 1,731 9 18,173	0 27 - 202 10,943 0 446 2,418 - 16,376	9,320 958 516 2,139 - 14,728	0 659 - 797 10,125 1,597 567 2,545 - 16,065	0 295 - 421 8,815 2,511 561 1,955 4 14,835	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987	-10.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia	57 910 - 2,518 - - - - - - - 247,103	7 92 20 1,387 10,667 0 287 806 - 14,536	0 33 8 491 11,065 0 370 854 - 14,895	10 208 25 639 13,072 0 458 1,731 9 18,173	0 27 - 202 10,943 0 446 2,418 - 16,376	9,320 958 516 2,139 - 14,728	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588	0 295 - 421 8,815 2,511 561 1,955 4 14,835	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China	2,518 - 2,518 - - - - - - - - - - - - - - - - - - -	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420	0 33 8 491 11,065 0 370 854 - 14,895	10 208 25 639 13,072 0 458 1,731 9 18,173	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400	9,320 958 516 2,139 - 14,728 277,859 138,088	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico	2,518 2,518 2,518 2,518 247,103 11,223 92,168	7 92 20 1,387 10,667 0 287 806 - 14,536	0 33 8 491 11,065 0 370 854 - 14,895	10 208 25 639 13,072 0 458 1,731 9 18,173	0 27 - 202 10,943 0 446 2,418 - 16,376	9,320 958 516 2,139 - 14,728	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588	0 295 - 421 8,815 2,511 561 1,955 4 14,835	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China	2,518 - 2,518 - - - - - - - - - - - - - - - - - - -	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789	9,320 958 516 2,139 - 14,728 277,859 138,088 99,618	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam	57 910 - 2,518 - - - - - - - - - - - - - - - - - - -	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214	9,320 958 516 2,139 - 14,728 277,859 138,088 99,618 28,416	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals Indonesia China Mexico Vietnam Philippines	247,103 11,223 92,168 3,017 4,466	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734	0 67 - 374 9,320 958 516 2,139 - 14,728 277,859 138,088 99,618 28,416 9,267	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada	247,103 11,223 92,168 3,017 4,466 30,333	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704	9,320 958 516 2,139 - 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 2.75%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 2.75% 34.666% 146.62% -18.13%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,664 18,721 9,151	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 2.75% 34.66% 34.66% 146.62% -18.13% 20.99%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399	0 27 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 2.75% 34.66% 146.62% -18.13% 20.99% -9.14%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937	0 33 8 491 11,065 0 370 854 	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026	0 27 202 10,943 0 446 2,418 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 2.75% 34.66% 146.92% -19.94% -9.94%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 23,592 24,520 22,087 8,694 18,263 5,809 915 44,454 2,456	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% -9.14% -49.93% 244.27%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 24.56% 146.62% -18.13% 20.99% -9.14% 49.93% 244.27% -58.12%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0	9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 23,592 24,520 22,087 8,694 18,263 5,809 915 44,454 2,456	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,664 18,721 9,151 8,770 15,451 1,484 7,872 1,494	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% -7.22% 38.33% -34.16% 13.06% 2.75% 34.66% 146.62% -18.13% 20.99% -9.14% 49.93% 244.27%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916	0 27 - 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374	0 67 - 374 9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 1,800 459	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 2.75% 34.66% 146.62% -18.13% 20.99% -9.14% 49.93% 244.27% -58.12% 82.33%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 1,001	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 - 0 349	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 - 0 781	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523	0 27 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374 950	0 67 -374 9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 -1,800 459 120	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 2.75% 34.66% 146.62% -18.13% 20.99% -9.14% -9.93% 244.27% 58.12% 82.33% -57.64%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 0 1,001	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724	11,065 0 370 854 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0	0 27 202 10,943 0 446 2,418 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374 950 0	0 67 - 374 9,320 958 516 2,139 - 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 - 1,800 459 120 0	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% -9.14% -49.93% 244.27% -58.12% 82.33% -57.64% 604.14%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries Feather Meal	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 1,001	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 0 0 349 432,293	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 0 781 508,590	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542	0 27 -202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374 950 - 0 1,176 563,280	0 67 -374 9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 -1,800 459 120 0 0 2,603 704,827	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73 1,564 806,838	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,108 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,664 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 1,021 1,028 1,098,447	-100.00% -98.12% -15.49% -9.73% 41.90% -20.20% -70.46% -10.56% -0.67% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% -9.14% -49.93% 244.27% 82.33% -57.64% 604.14% 139.99% -0.72%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries Feather Meal Indonesia	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 1,001 1,948 425,759	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 - 0 349 432,293	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 0 781 508,590 110,087	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990	0 27 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374 950 0 1,176 563,280	0 67 -374 9,320 958 516 2,139 14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 -1,800 0 2,603 704,827 27,373	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73 1,564	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761 28,047	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444 41,603	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 869 1,098,447	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.166 13.06% 13.06% 146.62% -18.13% 20.99% -9.14% -49.93% 244.27% -58.12% 82.33% -57.64% 604.14% 139.39% -0.72%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries Feather Meal Indonesia Vietnam	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 1,001 - 1 1,948 425,159	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 - 0 349 432,293 46,929 95	0 33 8 491 11,065 0 370 854 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 0 781 508,590 110,087 4,120	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990 7	0 27 202 10,943 0 446 2,418 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374 950 0 1,176 563,280 41,750 2,637	0 67 - 374 9,320 958 516 2,139 14,728 277,859 138,088 9,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 - 1,800 0 2,603 704,827 27,373 1,440	0 659 -797 10,125 1,597 567 2,545 -16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73 1,564 806,838	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 7,846 1,204 4,872 6 167 897,701 28,058 3,925	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761 28,047 3,763	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,770 15,451 1,484 7,872 1,484 2,656 145 363 1,106,444 41,603 11,124	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 869 1,098,447 62,847 26,777	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% -9.94% -49.93% 244.27% -58.12% 82.33% 604.14% 139.39% -0.72%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries Feather Meal Indonesia	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 0 12,386 0 0 1,001 1,948 425,159	7 92 20 1,387 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 0 349 432,293 46,929 95 25,667	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 - 0 781 508,590 110,087 4,120 52,972	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990 7 48,135	0 27 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 950 0 1,176 563,280 41,750 2,637 24,403	0 67 -374 9,320 958 516 2,139 -14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 -1,800 459 120 0 2,603 704,827 27,373 1,440 10,046	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73 1,564 806,838 29,177	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701 28,058 3,925 30,289	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444 41,603 11,124 23,049	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 869 1,098,447	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% 244.27% -58.12% 82.33% 604.14% 139.39% -0.72% 51.06% 140.71% 1.94%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries Feather Meal Indonesia Vietnam Chile Canada	57 910 - 2,518 - - - - - - - - - - - - - - - - - - -	7 92 20 1,387 10,667 0 287 806	0 33 8 491 11,065 0 370 854 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 0 781 508,590 110,087 4,120	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990 7	0 27	0 67 - 374 9,320 958 516 2,139 14,728 277,859 138,088 9,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 - 1,800 0 2,603 704,827 27,373 1,440	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 1,905 1,564 806,838 29,177 - 11,744 18,241	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701 28,058 3,925 30,289 15,072	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444 41,603 11,124 23,049 6,758	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 869 1,098,447 62,847 26,777 23,496 7,201	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% -9.14% 49.93% 244.27% -58.12% 82.33% -57.64% 604.14% 139.39% -0.72% 51.06% 140.71% 1.94% 6.56%
Ghana Japan Mexico Honduras Total All Countries Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries Feather Meal Indonesia	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 0 12,386 0 0 1,001 1,948 425,159	7 92 20 1,387 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 0 349 432,293 46,929 95 25,667	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 - 0 781 508,590 110,087 4,120 52,972	10 208 25 639 13,072 0 458 1,731 9 18,173 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990 7 48,135	0 27 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 950 0 1,176 563,280 41,750 2,637 24,403	0 67 -374 9,320 958 516 2,139 -14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 -1,800 459 120 0 2,603 704,827 27,373 1,440 10,046	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73 1,564 806,838 29,177	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701 28,058 3,925 30,289	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444 41,603 11,124 23,049	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 869 1,098,447	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 2.75% 34.66% 146.62% -18.13% -9.14% -9.93% 244.27% 58.233% -57.64% 604.14% 139.39% -0.72% 51.06% 140.71% 6.56% 183.28%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries  Feather Meal Indonesia Vietnam Costa Rica Total All Countries  Feather Meal Indonesia Vietnam Chile Canada Peru	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 1,001 - 1,948 425,159 36,011 625 13,697 11,632 0	7 92 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 - 0 349 432,293 46,929 95 25,667 17,035 0	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 0 781 508,590 110,087 4,120 52,972 8,961	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990 7 48,135 16,227	0 27	0 67 -374 9,320 958 516 2,139 -14,728 277,859 138,088 99,618 28,416 9,267 64,292 11,549 10,693 3,480 2,410 4,130 18,144 -1,800 459 120 0 2,603 704,827 27,373 1,440 10,046	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 1,905 1,564 806,838 29,177 - 11,744 18,241	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701 28,058 3,925 30,289 15,072	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,108 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761 28,047 3,763 43,443 7,175 1,325	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,664 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444 41,603 11,124 23,049 6,758 1,346	15 12 - 111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 1,021 1,024 1,025 1,027 1,021 1,021 1,024 1,025 1,027 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021 1,021	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 146.62% -18.13% 20.99% -9.14% 49.93% 244.27% -58.12% 82.33% -57.64% 604.14% 139.39% -0.72% 51.06% 140.71% 1.94% 6.56%
Ghana Japan Mexico Honduras Total All Countries  Poultry Fat Canada Peru Guatemala Mexico Chile Total All Countries  Animal Protein Meals Indonesia China Mexico Vietnam Philippines Canada Ecuador Honduras Thailand Peru Guatemala Chile Sri Lanka Malaysia Colombia Myanmar Australia Costa Rica Total All Countries  Feather Meal Indonesia Vietnam Filippines Colombia Myanmar Australia Costa Rica Total All Countries  Feather Meal Indonesia Vietnam Chile Canada Peru Honduras	247,103 11,223 92,168 3,017 4,466 30,333 1,919 167 11,512 337 10 12,386 0 0 1,001 - 1,948 425,159 36,011 625 13,697 11,632 0 0	7 92 20 1,387 20 1,387 10,667 0 287 806 - 14,536 155,813 23,420 99,043 2,050 33,035 38,044 2,568 900 12,884 680 1,037 45,937 0 2,060 724 - 0 349 432,293 46,929 95 25,667 17,035 0 0	0 33 8 491 11,065 0 370 854 - 14,895 168,479 54,483 83,474 1,780 29,729 43,368 9,785 3,406 14,951 1,156 12,595 59,689 0 4,053 2,276 0 781 508,590 110,087 4,120 52,972 8,961	10 208 25 639 13,072 0 458 1,731 156,059 63,174 74,874 1,613 12,462 48,690 10,298 1,100 5,740 994 7,399 32,026 0 3,916 1,523 0 749 432,542 98,990 7 48,135 16,227	0 27 202 10,943 0 446 2,418 - 16,376 199,067 81,400 103,789 8,214 10,734 58,743 8,563 3,704 5,163 1,019 1,381 57,084 0 1,374 950 0 1,176 563,280 41,750 2,637 24,403 15,573 578	0 67 	0 659 - 797 10,125 1,597 567 2,545 - 16,065 303,588 162,346 129,371 39,528 6,605 66,422 15,795 4,102 17,119 5,564 2,934 26,963 1,914 7,348 925 1,905 73 1,564 806,838 29,177 - 11,744 18,241 427	0 295 - 421 8,815 2,511 561 1,955 4 14,835 321,452 198,991 112,375 65,629 23,592 54,520 22,087 8,694 18,263 5,809 915 44,454 2,456 7,846 1,204 4,872 6 167 897,701 28,058 3,925 30,289 15,072 761	0 573 - 661 7,074 2,080 1,003 1,780 - 12,862 385,010 199,670 112,106 115,544 38,915 49,049 33,845 7,520 32,179 3,762 3,336 41,801 2,055 11,990 1,561 5,163 77 108 1,046,761 28,047 3,763 43,443 7,175 1,325 1,525	0 22 5,700 5,909 6,538 3,660 2,659 2,153 1,987 18,992 333,233 235,510 116,548 190,485 64,090 54,810 29,432 12,654 18,721 9,151 8,770 15,451 1,484 7,872 1,494 2,656 145 363 1,106,444 41,603 11,124 23,049 6,758 1,346 1,945	15 12 - 1111 5,525 4,016 3,773 1,718 587 16,987 335,464 218,507 161,223 125,408 72,460 56,320 39,634 31,207 15,326 11,072 7,968 7,737 5,109 3,297 2,724 1,125 1,021 869 1,098,447 26,777 23,496 7,201 3,813 966	-100.00% -98.12% -15.49% 9.73% 41.90% -20.20% -70.46% -10.56% 0.67% -7.22% 38.33% -34.16% 13.06% 2.75% 34.66% 146.62% -18.13% -9.14% -49.93% 244.27% -58.12% 604.14% 139.39% -0.72% 51.06% 140.71% 1.94% 6.56% 183.28% -50.33%

Source: Trade Data Monitor



There is not enough available data to estimate the global oleochemical demand for fats.

### **Fat Exports Mixed**

The United States exported 187,800 mt of inedible tallow in 2021, a 37% decrease from the year before. The largest importer last year was Mexico at 97,200 mt, a decline of 20%; followed by Canada at 60,800 mt, an increase of 27%; and Honduras at 11,600 mt, an increase of 42%. Singapore, which had been the third largest export market in 2020 at 46,000 mt, stopped importing inedible tallow from the U.S. altogether in 2021, according to U.S. Customs data.

Yellow grease exports totaled 762,600 mt in 2021, down just 0.5% from 2020, with the largest importers being Singapore at 501,000 mt, down 2.89% from 2020; the U.K. at 93,900 mt, up 22.60%; Mexico at 92,200, up nearly 58%, and the 27 countries in the EU at 36,942 mt, down 52.24%. Yellow grease (includes UCO) exports to Singapore, the U.K. and EU combined account for more than 54% of all U.S.-rendered fat exports, demonstrating the dramatic shift in consumption of rendered fats and oils toward renewable fuel.

### **Record Protein Meal Exports**

Exports of U.S. rendered animal protein meals totaled 1.2 mmt in 2021, up 2.5% from 2020 and 56% over the last five years. Indonesia remains the largest market, importing 335,400 mt in 2021, an increase of 0.67%; followed by China at 218,500 mt, a decrease of 7%; and Mexico, which surpassed Vietnam to become the third largest export market at 161,200 mt, an increase of 38%. U.S. feather meal exports totaled 127,400 mt in 2021, a 41% increase over 2020. The largest importer of feather

meal was Indonesia at 62,800 mt, up 51% from 2020; followed by Vietnam at 26,700 mt, increasing 140%; and Chile at 23,400, up 1.94%.

The growth in animal protein meal exports to Mexico can be attributed to the success of the United States-Mexico-Canada Trade Agreement, which was instrumental in getting Mexican market access for U.S. bovine MBM. While the agreement went into force July 1, 2020, increased exports of MBM to Mexico were not fully realized until 2021 due to regulatory hurdles, such as plant registrations that involve onsite inspections by APHIS and a rigorous approval process that must be accepted by SENASECA (Mexico's national service of health, food safety, and quality) before export certificates can be issued.

Once U.S. companies were approved for export, Mexican poultry, swine and petfood producers enthusiastically

welcomed the new sources of protein to help manage feed costs amid pandemic-related supply chain issues and the rising cost of inputs. NARA spent several years laying the groundwork for this agreement by collaborating with the Mexican feed producer's association (CONAFAB) to press SENAECA for access to this product. The 38% jump in MBM exports to Mexico in 2021 is a testament to the new market access achieved under USMCA and should be a model for future agricultural trade negotiations.

# Post-Pandemic Growth and Market Shifts

As the world adjusts to postpandemic life and finds its new normal, demand should increase for both fuel and foodstuffs – thereby increasing demand for rendered products. Renewable fuel standards and the expansion of the biofuel sector globally will increase demand and prices for rendered fats. Demand for protein meals will continue to be driven by the burgeoning aquaculture and pet food sectors.

The juxtaposition of the rising demand for fats and oils for renewable fuel consumption and declining domestic demand for rendered animal protein due to changing consumer preferences punctuates the need to find new markets for U.S. rendered protein products in 2022 and beyond.



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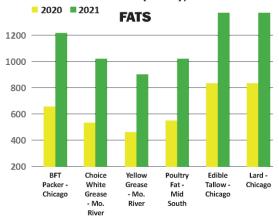
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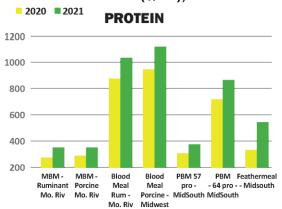
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# Market Report Highlights

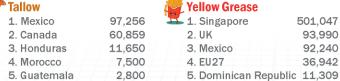
### **Average Annual Prices of Select** Rendered Products (\$/MT), 2020-2021



### **Average Annual Prices of Select** Rendered Products (\$/MT), 2020-2021



### US Export Customers by Product (in metric tons), 2021

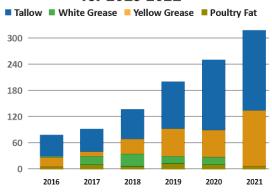


## **Animal Protein Meals**

1. Indonesia	335,464
2. China	218,507
3. Mexico	161,223
4. Vietnam	125,408
F Dhillinings	70 400



### **US Imports of Rendered Products** for 2016-2021



# and Poultry Slaughter, 2020-2021



9,325,584

215,663

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