Market Report

Pressure is on US supplies, prices, and exports

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Last year, global growth continued its decline but may have finally hit bottom. According to the International Monetary Fund (IMF), global output fell from 3.1 percent in 2012 to 3.0 percent in 2013, and is predicted to increase to 3.7 percent this year. United States (US) output is projected to rise from 1.9 percent in 2013 to 2.8 percent in 2014 while Canada should grow from 1.7 percent to 2.2 percent over the same period. Europe saw its decline in growth shrink from -0.7 percent in 2012 to -0.4 percent in 2013 and is predicted to be 1.0 percent this year. Emerging markets and developing economies saw output drop from 4.9 percent in 2012 to 4.7 percent in 2013, and is forecasted to grow to 5.1 percent in 2014.

The world lost two great leaders last year, Margaret Thatcher and Nelson Mandela, and experienced many major events, such as the horrific Boston Marathon bombing in the United States; the Egyptian Army ousting President Mohamed Mursi; the Kenya, Africa, mall attack; the US government shutdown; the George Zimmerman trial; and Edward Snowden making secret National Security Agency information public. Camouflage and beards became cool last year as the stars of television's Duck Dynasty made headlines in the United States, and new terms were brought to light, such as "bitcoin," "selfie," and "twerking." Ask the teenage kids about the latter.

In April 2013, the porcine epidemic diarrhea virus (PEDV) was reported in the United States with it emerging in Canada in January 2014. The virus dates back to 1971, but is new to North America and has close to 100 percent mortality in young pigs. Another acronym the US rendering industry is getting accustomed to is FSMA, which stands for the Food Safety Modernization Act. Animal feed regulations under FSMA were proposed in late 2013, with industry groups, including the National Renderers Association (NRA), working to provide official comments to the Food and Drug Administration on this new proposed rule.

Finally, closer to home, NRA President Tom Cook retired at the end of 2013, a position he had held since 1997. He will be greatly missed as the industry wishes him and his wife, Judy, well in their retirement. At the same time, NRA saw the addition of a new president and chief executive officer, Nancy Foster, who is welcomed whole heartedly to the team.

Domestic Developments

Supply

Renderers continued to see downward pressure on their raw material supply last year. Cattle inventories remained low with slaughter down three percent over 2012 at 32.4 million head, although slaughter weights continued an upward trend, up nearly one percent to 1,314 pounds in 2013. Broiler slaughter ticked up by about one percent to 8.6 billion, ending a four-year decline in production, although still far below where it was prior to the financial crises. Hog slaughter dropped close to one percent to 112.1 million in 2013, with slaughter weights increasing by one pound to 276 pounds. Part of the decline in slaughter was due to PEDV. However, since the virus only affects young pigs, the full impact on slaughter numbers will not be felt until this year.

The decline in raw material supplies is not only due to reduced slaughter but also regulatory changes, theft of used cooking oil, and the increased demand for edible offal for export. Production and consumption data for the rendering industry was traditionally reported in the US Census Bureau's *M311K – Fats and Oils: Production, Consumption, and Stocks* report. However, due to government cutbacks, this report was discontinued in July 2011. Hence, the data in table 2 of this report was derived by the NRA using historic relationships between livestock production as reported by the National Agricultural Statistics Service (NASS) and rendered product production. Yellow grease production was derived by using the relationship between yellow grease production as reported in the 2010 report titled *A Profile of the North American Rendering Industry* by Informa Economics, and cooking oil consumption as reported by the US Department of Agriculture (USDA). Poultry meal, feather meal, and poultry fat production was derived using NASS slaughter data and yield data.

Tallow production in 2013 is estimated at just over 2.2 million metric tons, down slightly from 2012. White grease production, which consists of both choice white grease and lard, tracked the slight decline in swine slaughter, dropping to 590,700 metric tons in 2013. Yellow grease production is estimated at 900,800 metric tons, up 1.8 percent from 2012, and includes, but is not limited to, used cooking oil. Poultry fat production was up 1.4 percent in 2013 to 481,500 metric tons. In total, the US rendering industry produced over 4.2 million metric tons of fat in 2013, valued at approximately $3.5 billion. Due to declining fat prices last year, the value of production dropped by 9.0 percent, or about $353 million.

Meat and bone meal production, which includes ruminant, porcine, and mixed specie meat and bone meal, was 2.2 million metric tons in 2013, down slightly from 2012. Poultry meal production was about 1.2 million metric tons while feather

meal production was 616,600 metric tons, both 1.4 percent higher than 2012. Total protein meal production was 4.0 million metric tons in 2013 valued at around $2 billion.

Demand

The rendering industry produces products for the feed, pet food, energy, and oleochemical industries. In 2013, renderers saw prices back off a bit as global supplies of competing products like palm oil and soybeans were plentiful.

According to Alltech's 2014 Global Feed Survey, the United States produced 168.6 million metric tons of feed last year, the second largest feed producer behind China. This production is nearly flat from 2012. In addition to weaker growth in the domestic feed industry, lower corn prices, and increased biodiesel demand, rendered fat use in US feed, industrial, and food markets in 2013 was fairly flat over 2012. However, tallow consumption in these same markets increased by nearly four percent, to approximately 1.6 million metric tons. Domestically processed animal protein meal consumption last year was down slightly from 2012, to 2.9 million metric tons while domestic feather meal consumption was down over 15 percent to 438,000 metric tons.

The biggest domestic growth market for rendered products in 2013 was, again, biodiesel. One industry analyst reported that biodiesel and China are the two big drivers for US agriculture and there is a lot of truth to that. Dictated by the Environmental Protection Agency's (EPA's) Renewable Fuel Standard (RFS), the inclusion level for biodiesel in domestic diesel was initially set at 800 million gallons in 2011. In 2012, the mandate was increased to one billion gallons and for last year, EPA set the obligation volume at 1.28 billion gallons.

In 2013, consumption of all rendered fats in US biodiesel production grew slightly less than 20 percent from 2012 to just over one million metric tons. This accounts for 25 percent of total fat produced by the rendering industry, up from 21 percent in 2012 and 14 percent five years earlier. The use of animal fats in biodiesel production increased by just over six percent, to about 490,000 metric tons and within that category, tallow and white grease grew the most over 2012, increasing by 17 and 14 percent, respectively.

Recycled cooking oils saw the biggest increase in biodiesel consumption in 2013 at over 33 percent, with yellow grease use growing by 45 percent to 443,000 metric tons of the 581,100 total metric tons in that category. With rendered fat use in the domestic feed, industrial, and food market being relatively flat, the supply for biodiesel came directly from the US export market. Exports of rendered fats continued to decline with the increase in domestic biodiesel demand. In fact, the growth in consumption by the biodiesel industry over the last five years has almost precisely mirrored the decline in US exports of around 500,000 metric tons over that period.

Exports of rendered products in 2013 were approximately 1.5 million metric tons, down five percent from 2012. The US rendering industry exported approximately 18 percent of all production in 2013, down slightly from 19 percent in 2012. This decline in exports was mainly due to the major reduction in fat exports as mentioned previously. Rendered fat exports in 2013 totaled 773,000 metric tons, down approximately 20 percent from 2012 and 39 percent from 2011. This decline in exports follows the upward trend in the domestic use in biodiesel. However, 2013 and the latter part of 2012 also saw a glut of cheap palm oil on the global scene that further priced US tallow and greases out of the export market.

Prices of animal fats and yellow grease were down across the board in 2013; choice white grease was down nine percent while tallow, yellow grease, and poultry fat were each down eight percent over 2012 prices. Edible fat prices declined the most, with lard dropping 15 percent over 2012 levels. Animal protein prices were also off slightly; ruminant meat and bone meal was down two percent over 2012 to an average of $421 per metric ton and porcine meat and bone meal dropped five percent to $478 per metric ton. Feed grade poultry meal was down two percent to $528 per metric ton and pet food grade poultry meal decreased 11 percent to $745 dollars per metric ton. Feather meal prices averaged $636 per metric ton in 2013, down two percent from the previous year. It must be noted that the softening of prices in the protein meal segment came after record high prices in 2012.

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Table 1. Average annual prices of select rendered products, 2008-2013 (per metric ton)

Product (Location)	2008	2009	2010	2011	2012	2013	% Change 12/13
Fats							
Beef tallow, packer (Chicago)	$753	$553	$737	$1,095	$963	$887	-7.9
Choice white grease (Missouri River)	$729	$511	$657	$1,020	$926	$846	-8.6
Edible tallow (Chicago)	$840	$608	$775	$1,176	$1,068	$946	-11.4
Edible tallow (Gulf)	$751	$606	$787	$1,180	$1,034	$966	-6.6
Lard (Chicago)	$445	$631	$849	$1,093	$1,279	$1,081	-15.5
Poultry fat (Mid-south)	$709	$510	$628	$992	$864	$793	-8.2
Yellow grease (Missouri River)	$604	$448	$577	$932	$788	$727	-7.7
Protein meals							
Blood meal, ruminant (Missouri River)	$815	$752	$742	$861	$1,018	$1,118	9.8
Blood meal, porcine (Midwest)	$985	$884	$850	$950	$1,101	$1,187	7.8
Feather meal (Mid-south)	$483	$539	$490	$513	$649	$636	-2.0
Meat and bone meal, ruminant (Missouri River)	$361	$368	$330	$375	$429	$421	-1.9
Meat and bone meal, porcine (Missouri River)	$385	$400	$351	$419	$501	$478	-4.6
Poultry by-product meal (57% protein)	$486	$460	$406	$475	$539	$528	-2.0
Poultry by-product meal (67% protein) (Mid-south)	$678	$690	$673	$721	$834	$745	-10.7

Source: The Jacobsen.

Table 2. US production, consumption, and export of rendered products, 2008-2013 (000 metric tons)

Category	2008	2009	2010	2011	2012	2013	% Change 12/13
Production							
Tallow	2,424.4	2,364.5	2,338.8	2,373.5	2,265.1	2,248.0	-0.8
Inedible tallow	1,610.7	1,531.1	1,511.2	1,486.8	1,453.2	1,442.2	-0.8
Edible tallow	813.7	833.4	827.6	886.7	812.0	805.8	-0.8
Yellow grease/used cooking oil	920.0	872.9	868.8	906.4	884.4	900.8	1.9
White grease	595.5	586.4	572.7	580.7	594.0	590.7	-0.6
Choice white grease	531.7	523.6	511.3	518.4	530.3	527.4	-0.6
Poultry Fat	659.3	458.0	471.4	475.2	474.8	481.5	1.4
Lard	63.8	62.9	61.4	62.2	63.7	63.3	-0.6
Subtotal	4,599.2	4,281.8	4,251.8	4,335.7	4,218.3	4,221.0	0.1
Meat and bone meal	2,313.8	2,266.0	2,244.7	2,272.9	2,261.5	2,250.0	-0.5
Poultry by-product meal	1,176.5	1,145.0	1,178.6	1,188.1	1,186.9	1,203.8	1.4
Feather meal	603.9	586.2	603.5	608.5	608.0	616.6	1.4
Subtotal	4,094.2	3,997.3	4,026.7	4,069.5	4,056.4	4,070.4	0.3
Total	**8,693.5**	**8,279.1**	**8,278.5**	**8,405.2**	**8,274.7**	**8,291.4**	**0.2**
Consumption							
Feed, food, fatty acids, carryover, other	3,306.4	2,540.6	2,418.5	2,313.2	2,513.8	2,514.7	0.0
Tallow	1,614.7	1,323.8	1,396.9	1,519.7	1,528.8	1,587.4	3.8
Poultry fat	659.3	458.0	426.1	366.4	380.4	394.0	3.6
White grease	557.8	395.5	387.4	300.7	382.7	348.5	-8.9
Yellow grease	474.6	363.3	208.2	126.5	221.9	184.7	-16.7
Methyl esther	n/a	562.0	292.6	886.8	896.3	1,070.9	19.5
Animal fat	n/a	484.9	292.6	584.7	461.3	489.9	6.2
White grease	n/a	151.5	151.0	241.8	185.1	212.3	14.7
Tallow	n/a	240.9	77.1	195.5	174.6	205.0	17.4
Poultry fat	n/a	61.2	45.4	108.9	79.8	72.6	-9.1
Other	n/a	31.3	19.1	38.6	21.8	n/a	–
Recycled oils	n/a	77.1	129.7	302.1	435.0	581.1	33.6
Yellow grease	n/a	70.8	111.6	213.6	303.9	443.2	45.8
Other	n/a	6.4	18.1	88.5	131.1	137.9	5.2
Subtotal	3,306.4	2,540.6	2,418.5	3,200.0	3,410.1	3,585.6	5.1
Animal protein meals	3,105.2	2,993.0	2,885.1	2,869.6	2,925.3	2,901.0	-0.8
Feather meal	530.6	532.4	553.3	545.5	516.5	437.5	-15.3
Subtotal	3,635.9	3,525.4	3,438.4	3,415.2	3,441.8	3,338.5	-3.0
Total	**6,942.3**	**6,066.0**	**5,857.0**	**6,615.2**	**6,851.9**	**6,924.2**	**1.1**
Exports							
Inedible tallow	725.6	726.5	782.0	598.3	486.2	384.2	-21.0
Yellow grease	445.5	438.9	549.1	566.2	358.7	272.9	-23.9
Edible tallow	84.1	73.4	82.9	60.0	75.4	71.4	-5.3
Lard	37.1	38.2	32.5	35.7	24.8	29.4	18.5
Poultry fat	n/a	n/a	n/a	n/a	14.5	14.9	2.5
Choice white grease	0.6	1.2	1.8	2.5	1.4	0.5	-64.6
Subtotal	1,292.9	1,278.1	1,448.2	1,262.8	961.0	773.3	-19.5
Animal protein meals	385.1	418.0	538.1	591.3	523.1	552.8	5.7
Feather meal	73.3	53.9	50.1	63.0	91.6	179.2	95.7
Subtotal	458.3	471.9	588.3	654.3	614.7	731.9	19.1
Total	**1,751.2**	**1,750.0**	**2,036.4**	**1,917.1**	**1,575.7**	**1,505.2**	**-4.5**

Sources: Global Trade Atlas for exports, US Energy Information Agency for biodiesel inputs, USDA/NASS slaughter data to derive production.
Note: n/a = not available.

Table 3. US annual livestock and poultry slaughter, 2008-2013 (thousand head)

Specie	2008	2009	2010	2011	2012	2013	% Change 12/13
Broilers/Mature chickens	9,075,112	8,658,603	8,790,479	8,683,643	8,576,195	8,648,756	0.8
Cattle	34,514	33,338	34,265	34,087	32,951	32,486	-1.4
Hogs	116,559	113,618	110,257	110,860	113,163	112,126	-0.9
Turkeys	271,265	245,812	242,619	246,844	250,192	239,386	-4.3

Source: USDA/NASS.

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Outlook

Continued pressure on raw material supplies for the US rendering industry is likely to carry into 2014 and beyond. The USDA Economic Research Service predicts beef production to decrease by six percent this year, from 25.6 million pounds in 2013 to 24.1 million pounds in 2014, and continue its decline until 2017. Both pork and poultry production are forecasted to increase by three percent this year, although a wildcard is the effect of PEDV in the swine industry. It is estimated that four million pigs have died so far.

For fats, demand and prices should rebound in 2014 as the glut of palm oil has been reduced and its largest producer, Indonesia, is also becoming the largest user due to the expansion in the country's biodiesel mandate.

International Market Conditions

Protein Meals

As the global economy worsened last year, the worldwide feed industry's expansion slowed. According to the Global Feed Survey, worldwide feed production increased one percent to 963 million metric tons in 2013. China is the largest feed market in the world, although production decreased from 198 million metric tons in 2012 to 189 million metric tons last year. By regions, Asia is the largest feed producer in the world at 348 million metric tons in 2013, down from 357 million metric tons in 2012. Feed production in Europe rose from 208 million metric tons in 2012 to 227 million metric tons in 2013 and North American production was up slightly to 189 million metric tons. Latin American feed production rose four percent to 142 million metric tons while feed production in the Middle East/Africa region rose slightly, from 56 million metric tons to 57 million metric tons. These increases in feed production continue to create demand for rendered products.

NRA targets both the poultry and aquaculture industries in its export promotion programs to expand overseas markets. Global aquaculture feed expanded from 29.7 million metric tons in 2011 to 34.4 million metric tons in 2012 and to 57 million metric tons in 2013. Although the global poultry feed market is the largest at 46 percent of total world feed production, aquaculture is the fastest developing market at just over 17 percent in 2013. While this industry is small, it is growing quickly and processed animal protein meals have a competitive advantage in aquaculture diets because of their similarities to fish meal and lack of anti-nutritional factors.

Total exports of US processed animal protein meals grew by close to six percent in 2013 to 553,000 metric tons. Last year started out slow as harvests of competing oilseed meals were strong; however, droughts in various producing nations helped to strengthen prices later in the year. Indonesia continues to be the largest importer of US processed animal proteins, importing 231,000 metric tons in 2013, up over three percent from 2012. It also reportedly imported over 1,000 metric tons of feather meal last year, a 100 percent increase from the previous year. Mexico is the second largest US market, importing approximately 83,000 metric tons of US processed animal proteins in 2013, down 16 percent from 2012. China, the third largest US market, increased its imports by 53 percent to just over 50,000 metric tons.

Looking at protein meal exports in table 4, the positive message is that markets are expanding and growth in some of the smaller to medium size markets is expanding greatly. This growth helps to spread the risk of exporting in case a major market closes for any given reason. NRA, in coordination with USDA's Animal and Plant Health Inspection Service and Foreign Agricultural Service, has put much effort into opening markets for processed animal proteins in countries like Peru, Colombia, Chile, the Philippines, and Malaysia. All of these countries saw very strong growth in 2013.

The demand for animal proteins as a replacement for fish meal has changed the price structure for these proteins.

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Chart 1. Average monthly prices of select oil, fat, and greases, 2010- 2013 (per metric ton)

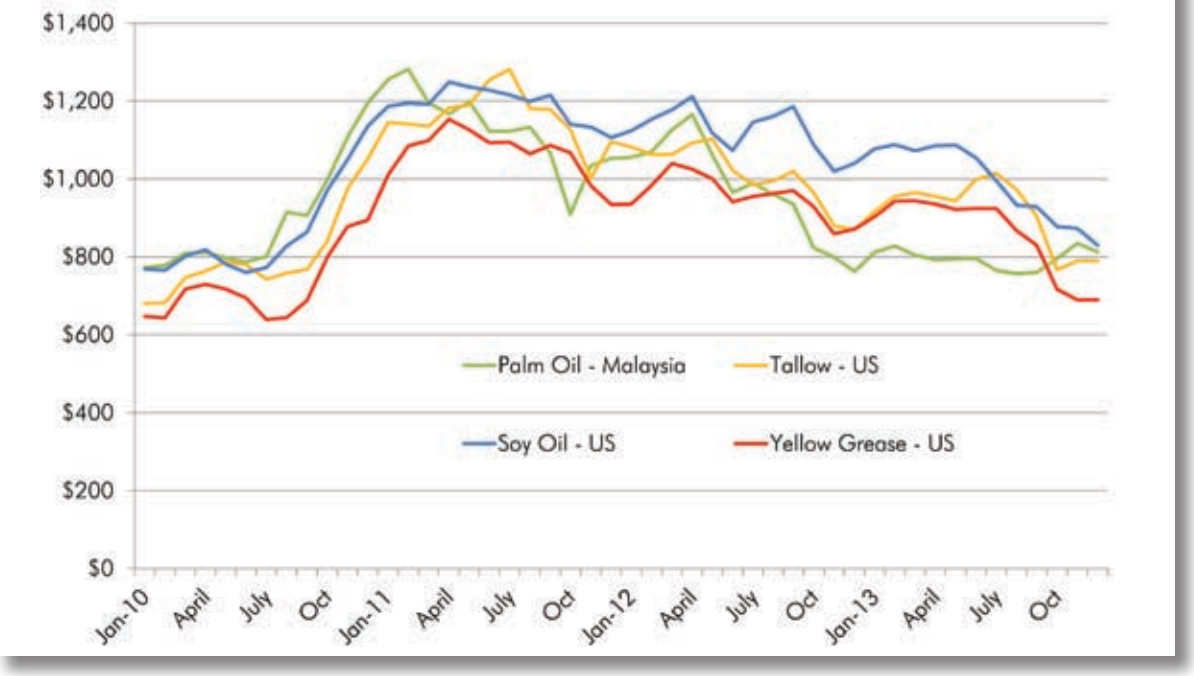

Table 4. US export customers by product, 2008-2013 (metric tons)

Product/Country	2008	2009	2010	2011	2012	2013	% Change 12/13
Inedible tallow							
Mexico	298,152	343,315	343,870	314,048	271,378	239,958	-11.6
Turkey	96,322	112,569	133,176	90,649	79,495	45,871	-42.3
Venezuela	11,660	18,847	14,599	23,369	18,589	18,799	1.1
Canada	23,598	23,373	27,458	20,013	12,772	14,849	16.3
Honduras	18,876	23,088	32,971	19,457	24,597	14,097	-42.7
Guatemala	26,414	26,142	43,723	29,584	19,117	13,332	-30.3
Morocco	9,454	13,841	15,425	16,913	10,501	5,000	-52.4
Dominica	4,199	3,199	4,699	2,799	4,199	4,649	10.7
Haiti	5,484	3,199	12,048	7,540	1,750	4,519	158.2
El Salvador	11,189	6,563	5,299	7,499	4,699	4,199	-10.6
Peru	19,920	16,951	22,498	21,981	15,000	4,080	-72.8
Pakistan	21,984	11,882	7,995	4,000	0	4,000	4,000.0
Colombia	17,288	10,998	10,298	8,099	6,699	3,899	-41.8
Nicaragua	6,699	7,599	10,148	8,098	7,749	3,199	-58.7
Dominican Republic	7,748	3,649	0	0	2,000	2,499	25.0
South Africa	10,894	3,980	5,479	5,088	0	1,000	1,000.0
Panama	0	400	900	400	400	400	0.0
Trinidad and Tobago	242	1,500	500	997	122	179	46.7
Korea, South	53,067	45,150	43,295	17,800	2,000	0	-100.0
Nigeria	67,997	37,997	42,520	0	0	0	0.0
Japan	12,347	5,999	0	0	0	0	0.0
Brazil	2,040	0	5,000	0	0	0	0.0
Singapore	0	0	0	0	5,000	0	-100.0
Total	**725,572**	**726,459**	**781,980**	**598,334**	**486,235**	**384,150**	**-21.0**
Yellow grease							
European Union-28	68,075	43,019	120,844	222,633	134,650	108,337	-19.5
Mexico	104,682	136,039	161,305	131,815	89,849	82,709	-7.9
Venezuela	109,464	102,879	118,243	91,490	74,589	35,699	-52.1
Dominican Republic	34,150	37,651	39,945	30,460	13,063	12,288	-5.9
Canada	38,178	22,238	15,392	26,547	15,604	11,546	-26.0
Guatemala	5,840	12,985	19,023	10,224	7,009	3,799	-45.8
Jamaica	4,931	6,289	7,845	6,630	2,402	3,602	50.0
Singapore	495	5	539	706	1,576	2,674	69.7
Bosnia and Herzegovina	–	–	512	1,608	520	1,567	201.3
El Salvador	10,210	9,973	10,784	11,239	1,406	1,355	-3.6
Honduras	9	4,640	5,989	7,236	1,643	1,327	-19.2
Haiti	4,231	7,833	4,998	5,292	4,000	1,250	-68.8
Australia	264	42	100	196	18	551	30.4
Korea, South	18,187	8,049	8,089	2,870	385	502	-89.4
Costa Rica	2,236	5,343	3,620	1,991	2,705	287	-23.9
Total	**445,489**	**438,851**	**549,053**	**566,216**	**358,664**	**272,938**	**-23.9**
Edible tallow							
Mexico	72,832	67,879	75,020	54,379	70,205	66,512	-5.3
Canada	7,772	3,444	3,011	5,283	5,163	4,867	-5.7
Turkey	0	1,649	3,944	0	0	0	0.0
Trinidad and Tobago	118	196	133	95	26	0	-100.0
Korea, South	2,266	0	0	184	0	0	0.0
Total	**84,053**	**73,398**	**82,893**	**59,963**	**75,399**	**71,379**	**-5.3**
Lard							
Mexico	31,938	36,394	27,483	32,859	23,487	28,310	20.5
Canada	2,727	715	4,085	2,005	598	596	-0.3
Trinidad and Tobago	569	363	272	218	488	233	-52.3
Total	**37,149**	**38,215**	**32,490**	**35,728**	**24,826**	**29,408**	**18.5**
Feather meal							
Indonesia	56,813	43,207	36,131	36,011	46,929	109,783	133.9
Chile	0	0	0	13,697	25,168	53,923	114.3
Canada	5,383	6,311	9,497	11,632	17,035	8,961	-47.4
Vietnam	5,367	92	660	625	95	4,372	4,502.1
Germany	0	0	5	0	0	1,275	1,275.0
Taiwan	1,154	947	1,811	680	1,600	451	-71.8
Japan	7	0	28	0	725	392	-45.9
Total	**73,255**	**53,882**	**50,139**	**62,989**	**91,552**	**179,157**	**95.7**

Table 4. US export customers by product, 2008-2013 (metric tons), continued

Product/Country	2008	2009	2010	2011	2012	2013	% Change 12/13
Animal protein meals							
Indonesia[1]	192,279	260,471	336,349	387,037	222,998	230,923	3.6
Mexico[2]	108,874	83,729	72,710	91,425	99,049	83,334	-15.9
China[1]	10,572	14,059	45,241	26,723	33,292	50,939	53.0
Canada	29,876	38,051	43,488	30,333	38,044	43,380	14.0
Chile	4,656	3,045	13,128	21,587	57,394	35,970	-37.3
Philippines	5,736	4,456	9,629	4,386	33,037	29,704	-10.1
Malaysia	860	0	0	0	2,060	16,190	685.9
Thailand	6,080	3,646	7,019	11,512	12,884	14,951	16.0
Guatemala	12	0	18	10	1,037	12,595	1,114.6
Ecuador	5,861	5,270	3,490	4,255	4,893	6,790	38.8
Netherlands	787	833	2,211	3,502	5,518	5,675	2.8
Cambodia	0	0	0	0	206	5,308	2,476.7
Bangladesh	1,546	0	0	0	1,277	3,425	168.2
Honduras	197	315	253	167	900	3,406	278.4
Turkey	11	0	164	0	442	2,649	499.3
Colombia	168	253	310	1,001	724	2,276	214.4
Vietnam	16,793	2,921	1,303	3,017	2,050	1,780	-13.2
Peru	17	10	27	337	680	1,156	70.0
Costa Rica	78	515	1,603	1,948	349	781	123.8
Total	**385,092**	**418,007**	**538,139**	**591,307**	**523,140**	**552,753**	**5.7**

Source: Global Trade Atlas.
[1]NRA estimates.
[2]From Mexico customs office.

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In 2013, the domestic price of high-protein poultry meal as reported by *The Jacobsen* had close to a 79 percent correlation to the price of fish meal. In addition, high-protein poultry meal traditionally has a $90 to $100 premium over feed-grade poultry meal in the domestic market, but that premium today is $200 to $300, and even more so in the export market. The importance of the growing aquaculture industry should not be overlooked as a very important element to the future demand growth for rendered products.

Fats and Greases

The global market for fats and greases was led by the release of excessive stocks of palm oil from Indonesia. Chart 1 shows the dramatic decline in prices through 2013. Palm oil prices fell from a high of $1,166 per metric ton in April 2012 to a low of $765 in July 2013, putting downward pressure on rendered fat prices. However, throughout 2013, tallow and yellow grease prices remained well above palm oil, pricing those products out of the global market. This was very much seen on the export side as exports of US fats and greases in 2013 fell by 20 percent from the previous year and 40 percent over 2011 exports. In the past, the export market sustained prices for US rendered fats, but due to demand, it was the domestic market that sustained prices the last two years.

In 2013, tallow exports to Mexico were down 12 percent and exports to Turkey were down over 50 percent from the historic average. Exports to traditional soap markets like Nigeria are now nonexistent. It is to be seen if these markets will return when prices normalize.

On the biodiesel front, production continues to act as a major demand source for rendered fats as well as palm oil. Global biodiesel and renewable fuel demand remained strong in 2013. The top three global biodiesel producers continued to utilize animal fats and used cooking oil as feedstocks. The United States used over one million metric tons, the 27 countries of the European Union took 1.7 million metric tons, and Brazil consumed over 541,000 metric tons of animal fats and used cooking oil for biodiesel production in 2013. This demand should continue this year.

Outlook

The IMF predicts world output will grow this year by 3.7 percent, up three percent from 2013. The market for both rendered fats and proteins should improve in 2014 mainly due to strong demand but also because of softer supplies of competing products. A drought in Brazil is already starting to put downward pressure on soybean forecasts and meteorologists are predicting an El Niño effect this year could put affect fish meal supplies. These forces should keep demand strong for rendered proteins. In addition, Indonesia is increasing its biofuel mandate from seven percent to 10 percent.

The Indonesian palm oil industry was traditionally based around exports; however, according to Fadhil Hasan as reported in *Bloomberg*, "Now we see domestic consumption of biodiesel is the most significant factor if the government is really committed to the program." If the word biodiesel was replaced with ethanol in that phrase, he would sound exactly like many US corn farmers.

In addition, Malaysia is expanding its biodiesel mandate and Brazil is rumored to be considering raising its requirement from five percent to seven percent. Indeed, as we move into 2014, prices for both rendered fats and protein meals are strengthening. It is yet to be seen if rendered products will reenter some of the global market for industrial uses that they were priced out of during the last two years. **R**