The International Magazine of Rendering

April 2016

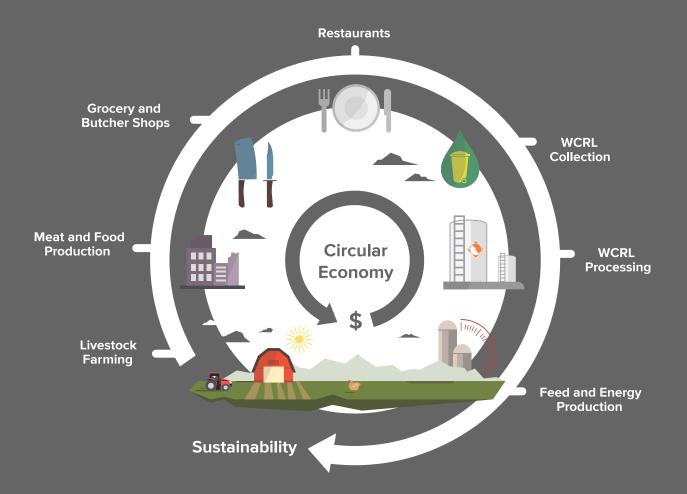
Market Report Prices are down

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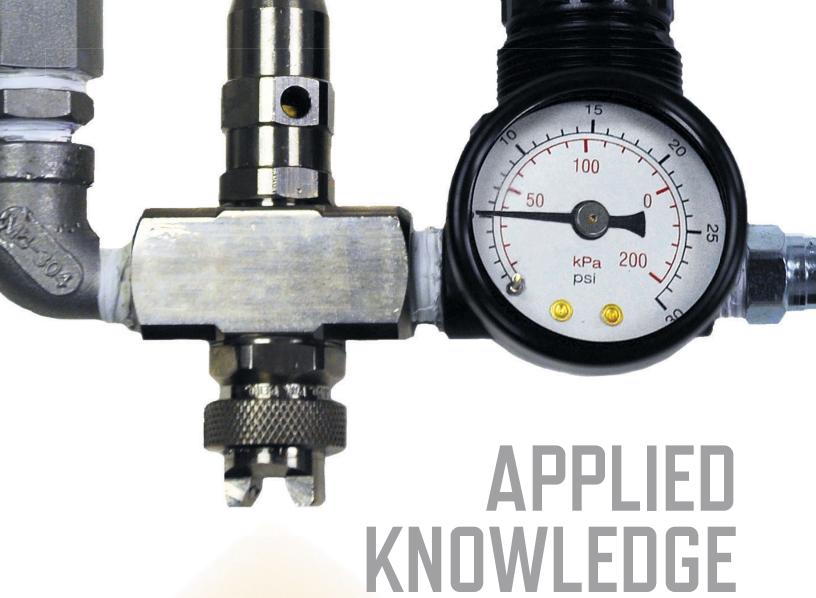


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Photo by Don Schimmel

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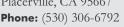
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Rendertorial

A letter sent by "snail mail" brought a flash from the past recently – a copy of the December 1975 cover of *Render*. The individual who sent it received the magazine 40 years ago as an employee of a large rendering company and he wished to restart his subscription all these years later. Of course we signed him right up!

The feature in that particular issue so long ago was "economic review," which today is called the "market report" and highlighted in every April issue. The cover image of an old calculator and handwritten bank checks piqued this editor's interest about what the industry was facing four decades earlier. Fortunately, it wasn't difficult to unearth a copy here at *Render*'s offices.

Editor Frank Burnham's words depicted 1975 as "perhaps the most tumultuous and trying in the history of the US rendering industry." Adjectives used by industry insiders to describe that year included "uncertain," "disappointing," and "dismal." Besides a struggling consumer economy, the cost of doing business for renderers jumped 20 to 30 percent - mostly due to new air and water regulations - Asian markets "went to pot" while other foreign markets floundered, and production dropped significantly. Prices for tallow were as low as 11½ cents per pound while meat and bone meal dropped to \$125 per ton. On the plus side, domestic consumption of tallow was the highest it had been in almost 30 years.

Fast forward 40 years and renderers seemed to be challenged once again. Fat prices are down 50 percent from their highs just four years ago, export markets have declined, and West Coast renderers are losing fat and bone material to a new "food waste" movement. Average prices for tallow were 26 cents per pound while meat and bone meal was \$368 per ton. On the bright side, demand for rendered products remains high, raw material supplies are on the upswing due to heavier livestock animals, and renderers remain united to battle the challenges coming their way.

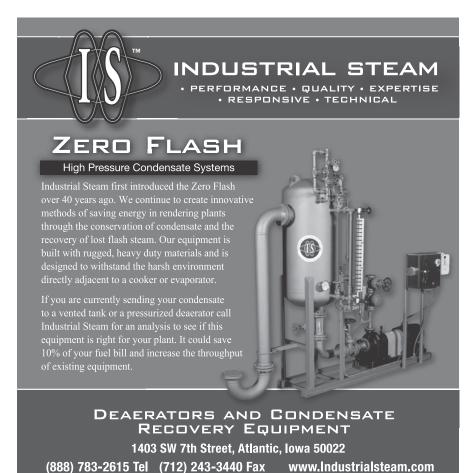
So whether it is 1975 or 2015, the trials and tribulations of rendering will continue and *Render* will be here to cover it all.



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More of the Same in an Election Year

As you read this, a July 18, 2016, deadline is looming. That is when the United States (US) Congress will effectively disappear for most of the summer and a good chunk of the autumn to tend to the business of political party nominating conventions and November elections. The common "wisdom" in Washington, DC, is that if legislative business is not concluded by the time lawmakers flee the city in July, most of the unfinished business will be punted into either the post-election lame duck session or the 115th Congress convening in January 2017.

For the full House of Representatives and one-third of the Senate, the primary goal is reelection in November, meaning to the extent politically possible, all controversial issues must be avoided. For 100 percent of Congress and five White House aspirants, it comes down to who is in political charge of the federal government when the dust settles in November. In a perfect GOP world – and based on the numbers – control translates to a Republican president and a Republican-controlled Congress. To the Democrats, the numbers tell the party its goal is to take back the Senate while putting one of their own in the White House for another four years.

However, while 535 lawmakers and one former Secretary of State chase votes, industry broadly is increasingly concerned about just how much legislative work will get done this year. Among issues hanging fire are several closely watched by the rendering industry.

At the top of the list is fiscal year (FY) 2017 federal spending and whether Congress will fully fund the Market Access Program and the Foreign Market Development program. Second on the spending list is how much money the Food and Drug Administration, US Department of Agriculture (USDA), and Environmental Protection Agency (EPA) will get and how Congress will tell them to spend it. The answer to the first concern is "yes," but the answer to the second is unknown.

On the money side, in a perfect procedural world, first Congress enacts a FY 2017 budget resolution and then it enacts 12 individual spending bills that keep the departments and independent agencies operational. Between discretionary spending (about \$1.25 trillion) and monies already obligated — mandatory spending — the federal budget now looks to sit just north of \$4 trillion for FY 2017.

From a 30,000-foot view — and because it is an election year — most of the action on a FY 2017 budget resolution is noise and political posturing. For all of the noise, a congressional budget resolution, even if approved by both chambers, has no real force of law but rather serves as a roadmap for congressional appropriators as to how much money the federal government should spend on various priorities.

President Barack Obama's FY 2017 budget recommendation sent in February is already a distant memory. The Senate in March all but surrendered its role in the budget fracas as

Senator Mike Enzi (R-WY), chair of the Budget Committee, admitted he will continue to play with the numbers this summer but will not be producing a formal Senate budget.

On the House side, the conservative wing of the Republican membership is pushing to hold the line on any increase in discretionary spending unless lawmakers are willing to cut entitlement programs — Medicare, Social Security, veterans' benefits, and so forth — by an equal amount over the next two years. However, the far-right House Freedom Caucus opposes the move and wants to simply reduce overall discretionary spending rather than hold the line at FY 2016 levels in exchange for cuts elsewhere.

As to the actual spending bills, House and Senate leadership have vowed to return to "regular order" in their handling of FY 2017 appropriations. This means the respective appropriations committees have begun the conventional process of listening to various secretaries and agency heads explain why they need more money, and these committees will then go through the process of approving the dozen bills. History tells us "regular order" is at best aspirational. Congress has enacted all 12 appropriations bills only four times since 1977, and the last time lawmakers did what they were supposed to do was in 1997.

While some of the spending measures — military and homeland security for instance — may see a floor vote in both chambers, most will not. What Congress will inevitably wind up doing, because it is an election year and lawmakers hate explaining spending in an election year, is cobble together yet another continuing resolution that will keep the government operating past September 30, the end of the fiscal year, and likely well into December. That means the heavy lifting — the FY 2017 omnibus spending bill — will be slapped together during the post-election/end-of-session lame duck. The spending numbers will look remarkably like the omnibus spending bill enacted last December.

House Speaker Paul Ryan (R-WI) still dreams of doing some form of federal tax reform this year. Yet given the complexity of the issue, its political volatility, and, again, the GOP desire to deny Obama any legacy credit for tax code simplification/reduction, the earliest the words "tax reform" may be mentioned is in the lame duck session and then only if there is broad bipartisan agreement on minimum tax rate tinkering on both corporate and personal rates as a prelude to 2017 actions.

Congressional action to halt or hinder EPA rulemakings on water, air, and climate change is unlikely. Given that nearly all of the truly contentious rulemakings – waters of the US, carbon dioxide limits on existing and new power plants, and ozone limits – are tied up in federal court based on legal action by the states, industry, and individual companies, Congress is not likely to step in. Instead, it can let the process play out in hopes the federal courts will decide the future of Obama's climate change legacy.

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Unlikely to get any attention save for the occasional floor speeches and pointed media quotes will be the TransPacific Partnership (TPP) trade treaty, approved in late 2015 by 12 Pacific Rim nations. The historic deal has been a political football for White House aspirants from both parties, and is also a major target of criticism for labor unions and environmental groups. Again, there is no political will to take on the controversial treaty when voter blocs rail against it, and for Republicans, it is another of Obama's "legacy issues" they can deny the lame duck president.

Both House and Senate GOP leaders have said they will not schedule floor action on TPP while Obama is in office. If action is taken before the president exits, it will happen at the earliest during the lame duck session but more likely once the new Congress convenes next January and likely well after the new president gets the keys to the White House on January 20, 2017.

TPP is also coping with unwanted negative publicity surrounding the growing public disenchantment with the administration's ongoing negotiations with the European Union (EU) on the Transatlantic Trade and Investment Partnership (TTIP), another Obama legacy trade item. Veteran trade observers publicly contend the notion of the United States and EU hammering out a successful comprehensive "free trade agreement" is a long shot at best given the dramatic philosophical and political differences between the world's two largest trading blocs, including opposing views on biotechnology, animal drug use, animal welfare, geographic product names, patent protections, and so on.

This growing schizophrenia over trade deals is well illustrated by recent policy actions by the US dairy industry. The National Milk Producers Federation (NMPF), which represents

US dairy cooperatives, endorsed TPP after a long analysis, just in time for administration submission to Congress for review and ratification this spring. The co-op group said, "Taken in its entirety, the TPP agreement is positive for the US dairy industry." However, at the same time, NMPF stated when it comes to TTIP, talks between the United States and EU have yielded no positive "concrete approach to regulatory and technical barriers."

Also garnering increasing attention but with little likelihood that focus will translate into action is the Renewable Fuel Standard (RFS), particularly the RFS for corn ethanol. The RFS is an almost guaranteed target for the 115th Congress when it convenes next January as no one has the political will or energy to take on the controversial federal gasoline/renewable fuels blending mandate battles this year.

Encouraged by Senator Ted Cruz's (R-TX) lowa caucus win in February even as he opposed the RFS in the heart of ethanol country, RFS opponents convinced GOP lawmakers to hold hearings in both the House and Senate in March related specifically to the notion the RFS is broken. Yet should it be mended or repealed altogether? All of the players have lined up along expected political lines, with the petroleum industry and food animal producers calling for the death of the RFS, and the renewable fuels community fighting to preserve the RFS as the lifeblood of the industry.

However, near-record ethanol exports, coupled with EPA's mishandling of the calculations and timing of RFS blend requirements for 2014, 2015, and 2016, have made life increasingly difficult for RFS supporters. In addition, the ethanol industry's very public dissatisfaction with how much

Continued on page 21



Training in Preparation for FSMA Compliance

On September 17, 2015, the Food Safety Modernization Act (FSMA) final rule, Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Food for Animals, was published in the *Federal Register*. The National Renderers Association (NRA) continues to work with the Food and Drug Administration (FDA) on interpretation and implementation of this rule. Of the seven sets of new FSMA rules, this one is most important to renderers. Below are some important facts renderers need to know.

FSMA was signed into law on January 4, 2011, and provides FDA with sweeping new authorities and requirements. It authorizes FDA to promulgate new rules for preventive controls, develop performance standards, and create new administrative detention rules. It also provides FDA authority for mandatory recall of adulterated products and the hiring of more than 4,000 new field staff, among other provisions. However, Congress is reticent to provide sufficient funding to fully implement the law due to a tight federal budget. All renderers will need to comply and FDA scrutiny on rendering that began with bovine spongiform encephalopathy 15 years ago will continue even if agency funding is not as much as requested.

FSMA Compliance Dates

To accommodate the feed manufacturing industry that is already familiar with good manufacturing practices but not preventive controls, FDA is phasing in the rule stepwise giving an extra year to implement preventive controls. However, this compliance schedule does not make sense for renderers because their main operation, cooking, is a preventive control and is already in place. With the industry's obligations to produce safe animal food ingredients along with customer expectations, renderers should make every effort to comply with both good manufacturing practices and preventive controls requirements by September 18, 2017, for most renderers (with fewer than 500 employees) and by September 18, 2016, for large firms (with more than 500 employees) (see

table 1). Renderers may want to comply as early as possible as a good business decision to serve customers, such as some pet food companies, with early compliance dates.

NRA believes the best way for renderers to prepare for FSMA compliance is to certify facilities in the *North American Rendering Industry Code of Practice* and/or the American Feed Industry Association's Safe Feed/Safe Food program. Both can be done now with the same audit. The *Code of Practice* now includes all main points covered by FSMA after a January 2015 update. Prior to that, it contained about 80 percent of what FSMA requires, with emphasis on records and documentation as the main missing element.

FSMA requires that each operation have a "preventive controls qualified individual" (PCQI) in place for compliance. The PCQI is defined as "a qualified individual who has successfully completed training in the development and application of riskbased preventive controls at least equivalent to that received under a standardized curriculum recognized as adequate by [FDA], or is otherwise qualified through job experience to develop and apply a food safety system." According to the regulation, a PCQI would need to be in place once a facility is in compliance with 21 Code of Federal Regulations (CFR) Part 507, Subpart C as detailed in table 1, with the earliest date being for large firms (more than 500 employees across the company) on September 18, 2016. However, the PCQI is responsible for preparation of the facility's animal food safety plan so it is very likely a facility will need to have a PCQI in place before the facility's legal compliance date in order to properly prepare the animal food safety plan.

Title 21 CFR Part 507.53(c)(1) states the PCQI does not need to be an employee of the facility and could be a team of individuals. Each firm will need to review the requirements for the PCQI and determine if they can be met by PCQI(s) not located at the facility. Section 507.53 details the requirements applicable to the PCQI and in part states "one or more preventive controls qualified individuals must...," therefore implying that it can be more than one individual.

Business size	Compliance date for Subpart B and related requirements (Current Good Manufacturing Practices)	Compliance date for Subpart C and 21 CFR 507.7 (Preventive Controls)
Business other than small and very small	September 19, 2016	September 18, 2017
Small business (a business, including any subsidiaries and affiliates, employing fewer than 500 full-time equivalent employees)	September 18, 2017	September 17, 2018
Very small business (a business, including any subsidiaries and affiliates, averaging less than \$2,500,000, adjusted for inflation, per year, dur the 3-year period preceding the applicable caler year in sales of animal food plus the market valuanimal food manufactured, processed, packed, without sale [e.g., held for a fee or supplied to a	ndar ee of or held	September 17, 2019, except for records to support its status as a very small business (January 1, 2017)

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A person can be a PCQI by training or experience. The preamble to the final rule states, "It is the responsibility of the owner, operator, or agent in charge of the facility to determine whether any individual who prepares (or oversees the preparation of) the food safety plan has appropriate qualifications to do so, whether by on-the-job experience or by training." Having the PCQI go through a standardized curriculum now being developed by the Food Safety Preventive Controls Alliance (FSPCA) is one method to determine if the PCQI is qualified. NRA is among the industry representatives assisting FSPCA to prepare this curriculum that will be used to train FDA inspectors. FSPCA is scheduled to finalize the training curriculum for animal food before June 2016. NRA will use the same curriculum in its Code of Practice and FSMA training for association members this June. A similar educational program for the Code of Practice will be offered online by NRA through Kansas State University starting later this summer.

NRA believes most plants already have a PCQI among current employees that are quality and/or regulatory team members due to their experience and training, particularly if plants have previously been certified in the *Code of Practice* or other hazard analysis and critical control point-like programs. However, NRA recommends that one or more employees take the PCQI training even though it is not essential to initially have all PCQIs trained. The individuals could be identified immediately and begin preparing the hazard analysis and animal food safety plan. As part of the curriculum, NRA will be preparing materials to assist association members and their PCQIs in these efforts.

In addition to the PCQI, the regulation defines "qualified individuals," which means virtually all employees in the plant will need minimum awareness that they impact animal food safety. The final rule defines a qualified individual as "a person who has the education, training, or experience (or a combination thereof) necessary to manufacture, process, pack, or hold safe animal food as appropriate to the individual's assigned duties.

A qualified individual may be, but is not required to be, an employee of the establishment." Title 21 CFR 507.4 details the applicability and qualifications of all individuals engaged in manufacturing, processing, packing, or holding animal food. NRA is also working on a video for training "qualified individuals" on important food safety and hygiene measures.

Training Opportunities

It is recommended that NRA members have at least one person attend the association's *Code of Practice* and FSMA training in Denver, Colorado, in June and then have multiple employees take the remote online training through Kansas State to complete the food safety team with people familiar with the regulations and compliance expectations. Many consultants, organizations, and even universities will also offer PCQI training for the animal food and human food rules. Any program using the FSPCA "animal" curriculum will be suitable and worthwhile, but NRA will offer the only FSPCA curriculum given by instructors well-versed in rendering and using rendering teaching examples.



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Prices are down but demand remains strong

By Kent Swisher Vice President, International Programs, National Renderers Association

ast year was characterized by depressed commodity prices. Crude oil prices stayed down following their slide in 2014 due to high production and low global demand, which dropped prices dramatically in the last quarter of 2015 to under \$40 per barrel. Prices for rendered products declined 30 percent on average to levels not seen since the economic crises of 2008/2009. The International Monetary Fund Global projected economic growth at 3.1 percent in 2015, down from 3.3 percent in 2014. Growth is forecasted at 3.4 percent in 2016.

A notable event in 2015 included the relaxing of United States (US) and Cuba relations. In January last year, US President Barack Obama met with Raul Castro in Cuba marking the first meeting of heads of state between the two countries since the Cuban Revolution in the 1950s. This meeting was followed by an agreement of both countries to reopen embassies and reestablish diplomatic ties. Other notable events last year included India's population officially reaching 1 billion in May and the Chinese economy's continual struggle as its government devalued its currency to strengthen exports. China also officially ended its one-child policy.

High pathogenic avian influenza (HPAI) was reported in the northwest United States in December 2014 and by March 2015, the virus was found in multiple states on the West Coast and the Mississippi flyway. Luckily, most major export markets adopted the World Organization for Animal Health's, or OIE's, recommended standards that indicate heat-treated rendered products are safe. However, the one exception was China, which banned processed poultry proteins from the United States shortly after the new year. The National Renderers Association (NRA) coordinated with the US Department of Agriculture's Animal and Plant Health Inspection Service (USDA/APHIS), the Foreign Agricultural Service (FAS), and importers in China to work with Chinese authorities to reestablish import requirements that assured import officials US rendered products were safe. The market soon reopened and trade resumed. On another front, negotiations with China to reopen the market for

US tallow concluded in 2015 after 10 years of talks. Exports of tallow to China should begin this year as US companies get registered to ship.

Domestic Developments

Supply

The downward trend in rendered product production appears to have hit bottom in 2014 as production last year was up 2 percent to nearly 8.3 million metric tons. Even though cattle slaughter

continued to decline, slaughter weights remained on the rise. In addition, swine and poultry slaughter continued to increase. Cattle slaughter was 28.7 million head in 2015, down nearly 5 percent from the previous year. Since 2010, cattle slaughter has declined 16 percent but live weight was up 2 percent in 2015 to 1,361 pounds from 1,330 pounds the year before. Swine slaughter declined 5 percent in 2014 due to mortalities caused by porcine epidemic diarrhea virus (PEDv) but the industry rebounded in 2015 as swine slaughter rose 8 percent to 115.4 million head. However, live weight decreased slightly last year to 283 pounds from 285 pounds the year before. Broiler production grew 2 percent in 2015 from the previous year, totaling 8.8 billion birds slaughtered, while live weight also increased 2 percent to 6.1 pounds per bird from 6.0 pounds in 2014.

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, but this report was discontinued in July 2011 after government cutbacks. Hence, the data in table 2 was derived by NRA using historic relationships between livestock production as reported by the National Agricultural Statistics Service (NASS) and rendered product production. Yellow grease production was calculated using the relationship between yellow grease production numbers in the 2010 report titled A Profile of the North American Rendering Industry from Informa Economics, and cooking oil consumption as reported by USDA. Poultry meal, feather meal, and poultry fat production were derived using NASS slaughter and yield data. Consumption data for rendered fats use in biodiesel/renewable fuel production was compiled in the Energy Information Agency Monthly Biodiesel Production Report while other consumption data was calculated by subtracting production estimates from export estimates and biodiesel use.

On a positive note, USDA/NASS is under a new mandate to start collecting the production data that the

Census Bureau had discontinued. NRA staff worked with agriculture service statisticians to refine survey forms that were developed and sent

out to renderers. The first NASS report was published in September 2015. By the end of 2016, a full year of data will be available and utilized in this report next year.

In 2015, tallow production was around 2 million metric tons, down less than 1 percent from the previous year, while white grease production increased over 7 percent in 2015 to slightly more than 623,000 metric tons, reflecting the increased swine slaughter. White grease consists of both choice white grease and lard. Yellow grease production, which includes but is not limited to used cooking oil, is estimated at over 926,000 metric tons in 2015, down less than 1 percent from 2014. Poultry fat production was up 3 percent last year, from 488,000 metric tons in 2014 to 503,000 metric tons in 2015. In total, the US rendering industry produced 4.1 million metric tons of fat in 2015.

Meat and bone meal production — which includes ruminant, porcine, and mixed species — was almost 2.3 million metric tons in 2015, up 1.7 percent from 2014. Poultry meal production was approximately 1.3 million metric tons in 2015, a 3 percent increase from 2014, while feather meal production was 644,000 metric tons last year, up 3 percent from the previous year. Cattle slaughter in 2015 was still down as producers were holding back heifers to replace the herd. The increased slaughter weights in addition to the expanded hog slaughter led to the slight growth in the production of rendered products. The sustained low commodity prices will continue to be a catalyst for increasing margins for livestock producers in the near term, which will be one of the factors leading toward increased growth in cattle, poultry, and swine production in the coming years.

Demand

The rendering industry produces commodities for the livestock feed, pet food, energy, and oleochemical industries along with edible products for food. According to the *Alltech 2015 Global Feed Survey*, the United States produced 173.7 million metric tons of feed in 2015, up slightly from 172.4 million metric tons in 2014. This slower than usual growth was due to the reductions in the poultry industry from HPAI eradication programs. The pork industry appears to have recovered from PEDv while cattle producers are entering an expansion and growing the breeding stock so demand for feed and feed ingredients remains strong. The demand from the oleochemical, pet food, and biofuel industries also remains strong.

Overall domestic demand for rendered products in 2015 was 6.8 million metric tons, up 2 percent from 2014, while exports were 1.4 million metric tons last year, down 7.5 percent from the previous year. Domestic consumption of fat was almost 3.5 million metric tons in 2015, up 3.6 percent from 2014. Consumption of fat in the food, feed, fatty acid, carryover, and other category was 2.3 million metric tons last year, mostly flat from the year before, and accounted for 56 percent of total fat production. Inedible tallow consumption in this category was 1.5 million metric tons in 2015, down nearly 1 percent from 2014, while yellow grease consumption was 115,000 metric tons last year, up 7 percent from 2014

Consumption of all rendered fats in biofuels was nearly 1.2 million metric tons in 2015, up 12 percent from 2014, and 28 percent of total fat production. By segment, the renewable fuel sector used 548,000 metric tons of animal fats last year, up about 21 percent from the previous year. Over 614,000 metric tons of recycled oils were used in biofuels in 2015, up 5 percent from 2014, while yellow grease/used cooking oil use was 559,000 metric tons last year, up 13 percent from the year before. Domestic demand of rendered fats from both traditional uses and biofuel remained strong and continues to pull fat off the export market.

Domestic consumption of processed animal protein meals was 2.8 million metric tons in 2015, down slightly from 2014. Consumption of feather meal was 478,000 metric tons last year, an increase of 7 percent from the year before. Exports of processed animal proteins were 648,000 metric tons in 2015, a jump of 15 percent from 2014, while feather meal exports were 166,000 metric tons last year, down 7 percent from the previous year mainly due to decreased demand from Indonesia.

Prices of rendered fats dropped in 2015 for the fourth straight year, on average about 30 percent from 2014. Compared to the highs of 2011, fat prices are down on average around 50 percent. Processed animal protein prices also dropped an average of 30 percent in 2015 from their highest levels in 2014.

Continued on page 13

Table 1. Average annual prices of select rea	ndered	products,	2010-201	5 (per met	ric ton)		
Product (Location)	2010	2011	2012	2013	2014	2015	% Change 14/15
Fats							
Beef tallow, packer (Chicago)	\$737	\$1,095	\$963	\$887	\$801	\$581	-27
Choice white grease (Missouri River)	\$657	\$1,020	\$926	\$846	\$711	\$498	-30
Edible tallow (Chicago)	\$775	\$1,176	\$1,068	\$946	\$865	\$638	-26
Edible tallow (Gulf)	\$787	\$1,180	\$1,034	\$966	\$803	\$563	-30
Lard (Chicago)	\$849	\$1,093	\$1,279	\$1,081	\$959	\$670	-30
Poultry fat (Mid-south)	\$628	\$992	\$864	\$793	\$660	\$502	-24
Yellow grease (Missouri River)	\$577	\$932	\$788	\$727	\$612	\$462	-24
Protein meals							
Blood meal, porcine (Midwest)	\$937	\$1,047	\$1,214	\$1,308	\$1,643	\$1,086	-34
Blood meal, ruminant (Missouri River)	\$818	\$949	\$1,122	\$1,232	\$1,580	\$1,070	-32
Feather meal (Mid-south)	\$540	\$565	\$715	\$701	\$772	\$521	-33
Meat and bone meal, porcine (Missouri River)	\$387	\$462	\$552	\$527	\$556	\$377	-32
Meat and bone meal, ruminant (Missouri River)	\$364	\$413	\$473	\$464	\$502	\$359	-28
Poultry by-product meal (57% protein, Mid-south)	\$448	\$524	\$594	\$582	\$610	\$447	-27
Poultry by-product meal (67% protein, Mid-south)	\$742	\$795	\$919	\$821	\$871	\$602	-31
Source: The Jacobsen.							

Table 2. US production, consumption, and export of rendered products, 2010-2015 (000 metric tons)							
Category	2010	2011	2012	2013	2014	2015	% Change 14/15
Production							
Tallow	2,338.8	2,373.5	2,265.1	2,248.0	2,094.6	2,077.8	-0.8
Inedible tallow	1,511.2	1,486.8	1,453.2	1,442.2	1,356.7	1,331.0	-1.9
Edible tallow	827.6	886.7	812.0	805.8	737.8	746.8	1.2
Yellow grease/used cooking oil	868.8	906.4	885.9	896.4	933.2	926.4	-0.7
White grease	572.7	580.7	594.0	590.7	581.4	623.4	7.2
Choice white grease	511.3	518.4	530.3	527.4	519.1	556.6	7.2
Poultry fat	471.4	475.2	474.8	481.5	488.2	503.1	3.1
Lard	61.4	62.2	63.7	63.3	62.3	66.8	7.2
Subtotal	4,251.8	4,335.7	4,219.8	4,216.6	4,097.4	4,130.7	0.8
Meat and bone meal	2,244.7	2,272.9	2,261.5	2,250.0	2,215.0	2,253.0	1.7
Poultry by-product meal	1,178.6	1,188.1	1,186.9	1,203.8	1,220.6	1,257.7	3.0
Feather meal	603.5	608.5	608.0	616.6	625.2	644.0	3.0
Subtotal	4,026.7	4,069.5	4,056.4	4,070.4	4,060.8	4,154.7	2.3
Total	8,278.5	8,405.2	8,276.2	8,287.0	8,158.2	8,285.4	1.6
Consumption	0,276.5	0,403.2	0,270.2	0,207.0	0,130.2	0,203.4	1.0
•							
Feed, food, fatty acids, carryover, other	2,463.9	2,314.0	2,435.9	2,375.9	2,314.7	2,312.1	-0.1
Tallow	1,396.9	1,519.6	1,528.3	1,587.8	1,490.2	1,476.4	-0.7
Poultry fat	471.4	366.4	394.9	378.7	372.1	384.3	3.3
White grease	387.4	301.6	382.7	349.3	345.8	336.7	-2.6
_	208.2	126.5	129.9	60.0	106.7	114.7	-2.6 7.5
Yellow grease Methyl esther	422.3	886.8	896.3	1,105.4	1,037.7	1,162.1	12.0
•	422.3 292.6			489.4	454.4		20.6
Animal fat		584.7 241.8	461.3 185.1		213.6	547.8	20.6
White grease	151.0			211.4		266.8	
Tallow	77.1	195.5	174.6	205.0	161.0	195.0	21.1
Poultry fat	45.4	108.9	79.8	73.0	79.8	86.0	7.8
Other	19.1	38.6	21.8	11.3	14.1	24.9	76.6
Recycled oils	129.7	302.1	435.0	616.0	583.3	614.3	5.3
Yellow grease	111.6	213.6	303.9	475.4	493.5	558.9	13.3
Other	18.1	88.5	131.1	140.6	89.8	55.4	-38.3
Subtotal	2,463.9	2,314.0	3,332.2	3,481.3	3,352.4	3,474.2	3.6
Animal protein meals	2,886.6	2,845.2	2,890.8	2,873.8	2,871.9	2,863.0	-0.3
Feather meal	550.1	559.6	545.2	524.5	446.4	478.0	7.1
Subtotal	3,436.7	3,404.8	3,436.0	3,398.3	3,318.3	3,341.0	0.7
Total	5,900.6	5,718.8	6,768.3	6,879.6	6,670.7	6,815.3	2.2
Exports	700.0	500.4	4077	0040	400.5	0.41.7	1.5.1
Inedible tallow	782.0	598.4	486.7	384.0	402.5	341.6	-15.1
Yellow grease	549.1	566.2	452.1	361.0	333.0	252.8	-24.1
Edible tallow	82.9	60.0	75.4	71.1	40.8	64.8	58.8
Poultry fat	n/a	n/a	29.1	29.8	36.3	32.8	-9.8
Lard	32.5	34.8	24.8	29.4	21.4	19.7	-7.7
Choice white grease	1.8	2.5	1.4	0.5	0.6	0.2	-68.7
Subtotal	1,448.1	1,261.9	1,040.4	875.9	834.7	711.9	-14.7
Animal protein meals	536.7	615.8	557.6	580.0	563.7	647.7	14.9
Feather meal	48.9	62.8	92.2	178.8	166.0	87.0	-47.5
Subtotal	585.6	678.6	649.8	758.8	729.4	734.7	0.7
Total Sources: Global Trade Atlas for experts	2,033.7	1,940.5	1,690.2	1,634.7	1,564.4	1,446.6	-7.5

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

Table 3. US annual livestock and poultry slaughter, 2010-2015 (thousand head)							
Species	2010	2011	2012	2013	2014	2015	% Change 14/15
Broilers/Mature chickens	8,790,479	8,683,643	8,576,195	8,648,756	8,669,628	8,822,695	1.8
Cattle	34,265	34,087	32,951	32,462	30,170	28,740	-4.7
Hogs	110,257	110,860	113,163	112,077	106,876	115,414	8.0
Turkeys	242,619	246,844	250,192	239,404	236,617	232,398	-1.8
Source: USDA/NASS.							

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Market Report Continued from page 11

Outlook

Cattle slaughter in 2015 continued its decline and was close to 5 percent below 2014 slaughter numbers. However, the industry is close to the bottom of its cycle. According to NASS, cattle and calves in the United States totaled 92 million head on January 1, 2016, up 3 percent since January 1, 2015. In addition, cows and heifers that have calved are up 3 percent over the same period as are beef replacement heifers to an estimated 6.3 million head.

USDA's Economic Research Service (ERS) projects steady increases in meat production through 2024; beef is expected to grow 10 percent, pork 13 percent, broiler 16 percent, and turkey 14 percent. Hence, the production outlook is very bullish for rendered products during the next nine years.

International Market Conditions

Protein Meals

Global demand for protein meals from the livestock feed, aquatic feed, and pet food sectors remained strong for most of 2015. According to the 2015 Alltech Global Feed Survey, global feed production increased from 980.0 million metric tons in 2014 to 995.5 million metric tons in 2015, a 1.6 percent increase. The largest feed producer in the world is China followed by the United States and Brazil. In addition, China is the target importer of feed ingredients in the world. In 2015, China produced 179.9 million metric tons of feed, down from 183.0 million metric tons in 2014. In the last two years feed production in China has dropped nearly 5 percent. This decline started in 2013 at the beginning of a period of slower growth and consolidation. In addition, disease concerns led to decreases in production and demand in the poultry industry. Reductions in swine production started in 2014 and

continued into 2015. In the first half of last year, the National Bureau of Statistics of China reported a 4.9 percent decline in pork production. All of these factors have led to reduced feed demand and production, with slower growth predicted in the future.

Overall prices of protein meals have been weak due to an oversupply of cheap soybeans, dried distiller's grain, and a softer demand from China.

As a region, Asia is the largest feed sector and produced 350.4 million metric tons of feed in 2015, down slightly from 351.0 million metric tons the previous year. Feed production in Europe, the second largest producer by region, grew to 240.6 million metric tons last year from 233.0 million metric tons in 2014. Feed production in the third largest region, North America, was nearly 194.1 in 2015, up 2.3 percent from 2014. Finally, feed production in Latin America, the fourth largest region, was around 152.3 million metric tons last year, an increase of 2.6 percent from the year before. The modest growth in the global feed sector reflects back on the added demand for feed ingredients produced by the rendering industry.

Globally, processed animal protein meals are used primarily in feed for poultry, aquatic, pets, and, to a lesser degree, swine. The largest growth market is the aquatic feed market, although production was down 14 percent from 41

million metric tons in 2014 to 35.5 million metric tons in 2015. Poultry feed production last year was estimated at 463.7 million metric tons, up 6 percent from 2014, while pet food production was 22.6 million metric tons in 2015, up 2.7 percent from the previous year.

Total processed animal protein meal exports from the United States were more than 647,000 metric tons in 2015, up nearly 15 percent from 2014. The largest importer was Indonesia, which took 276, 000 metric tons in 2015, up 24 percent from 2014. Exports to Mexico were close to 104,000 metric tons last year, up 39 percent from the previous year, while exports to China were about 63,000 metric tons in 2015, down 24 percent compared to 2014. This was mainly due to the brief closing of the market in the winter/spring of 2015 because of HPAI in the United States. Exports to Chile were close to 57,000 metric tons in 2015, up 50 percent from 2014. Meanwhile, total US feather meal exports totaled just over 87,000 metric tons last year, down 48 percent from the year before. This decline was due to a 58 percent reduction in exports to Indonesia and a 49 percent decline in exports to Chile.

Overall prices of protein meals have been weak due to an oversupply of cheap soybeans, dried distiller's grain, and a softer demand from China.

Fats and Greases

Lower global demand for rendered fats is due to an oversupply of palm and soy oil, diminishing economies in importing nations, and decreased tallow production that led to a 15 percent drop in inedible tallow exports in 2015. Markets for tallow continue to evolve as the biofuel markets continue to expand. Traditional tallow markets like South Korea, Nigeria, and Turkey are declining and/or disappearing. At the same, tallow going to biofuel industries in the United

States, Brazil, European Union, and Singapore are expanding. Mexico continues to be the main importer of US tallow, taking over 226,000 metric tons in 2015, down 4 percent from 2014. Turkey, which once regularly imported in excess of 100,000 metric tons annually,

only took about 21,000 metric tons in 2015, down 65 percent from 2014. Singapore, which mostly buys from Australia and New Zealand, imported 14,000 metric tons of tallow from the United States last year.

Yellow grease/used cooking oil (UCO) exports were just under 253,000 metric tons in 2015, a drop of 24 percent from 2014, mainly due to declining exports to the European Union and Mexico. Venezuela, once the largest importer of yellow grease, did not take any US yellow grease last year. The decline of yellow grease/UCO exports last year was offset by the increase in domestic use of renewable fuel. Total exports of fat are down more than 50 percent from levels seen over 10 years ago primarily due to the US biofuel market along with a strong dollar and an oversupply of competing fats and oils in the global marketplace.

Continued on page 15

Table 4. US export custome	ers by produc	1, 2010-2013	(in metric i	ons)			0/ 61
Product/Country	2010	2011	2012	2013	2014	2015	% Change 14/15
Inedible tallow							
Mexico	343,870	314,069	271,378	239,798	235,843	226,370	-4.0
Turkey	133,176	90,649	79,495	45,871	59,474	20,898	-64.9
Canada	27,458	20,013	12,772	14,841	18,487	20,812	12.6
Guatemala	43,723	29,584	19,117	13,332	21,470	20,449	-4.8
Singapore	0	0	5,000	0	5,000	14,275	185.5
Honduras	32,971	19,457	24,597	14,097	11,499	9,000	-21.7
Colombia	10,298	8,099	7,199	3,899	6,100	8,000	31.1
Morocco	15,425	16,913	10,501	5,000	9,000	7,000	-22.2
Nicaragua	10,148	8,098	7,749	3,199	4,325	3,700	-14.5
Dominican Republic	0	. 0	2,000	2,499	3,000	3,500	16.7
El Salvador	5,299	7,499	4,699	4,199	3,750	2,900	-22.7
Dominica	4,699	2,799	4,199	4,649	2,800	2,800	0.0
Haiti	12,048	7,540	1,750	4,519	8,348	917	-89.0
Panama	900	400	400	0	800	800	0.0
Trinidad and Tobago	500	997	122	179	264	205	-22.3
Pakistan	7,995	4,000	0	4,000	8,000	0	
Venezuela	14,599	23,369	18,589	18,799	3,800	0	
Guyana	0	0	0	20	496	0	
Jamaica	0	0	85	0	86	0	
Korea South	43,295	17,800	2,000	0	0	0	
Nigeria	42,520	0	0	0	0	Ö	
Brazil	5,000	0	0	0	0	0	
Peru	22,498	21,981	15,000	4,080	0	0	
Total	781,980	598,355	486,735	383,982	402,542	341,625	-15.1
Yellow grease	701,700	370,033	400,703	000,702	402,542	041,025	-15.1
European Union-28	120,982	222,722	154,095	147,289	153,726	127,826	-16.8
Mexico	161,305	131,831	113,534	95,892	95,617	73,439	-23.2
Canada	15,392	26,547	15,604	11,533	10,542	11,717	11.1
Dominican Republic	39,945	30,460	17,629	18,082	15,518	9,585	-38.2
Honduras	5,989	7,236	6,920	3,605	5,890	7,057	19.8
Guatemala	19,023	10,224	7,611	3,799	7,125	6,066	-14.9
Bosnia and Herzegovina	512	1,608	520	1,567	499	3,883	678.2
Trinidad and Tobago	1,787	1,572	1,455	2,447	1,144	2,193	91.7
Singapore	539	706	1,455	2,593	2,675	1,791	-33.0
Jamaica	7,845	6,630	4,802	6,991	7,300	1,310	-82.1
Ireland	4,652	1,808	1,315	1,692	814	1,119	37.5
China	17,967	4,188	572	1,072	276	962	248.6
Korea, South	8089	2870	385	502	552	961	-24.2
Haiti	4,998	5,292	5,284	1,250	1,250	947	-24.2 -24.2
Venezuela	118,243	91,490	104,869	56,896	19,851		-24.2
Total	549,053	566,246	452,067	361,031	333,028	0 252,781	-24.1
	347,033	300,240	432,007	301,031	333,026	232,761	-24.1
Edible tallow	75.000	E 4 450	70.005	44.070	25.040	(1.005	70.5
Mexico	75,020	54,459	70,205	66,278	35,840	61,095 3,657	70.5
Canada		<i>r</i> 000	F 1 / 1				
	3,011	5,283	5,163	4,870	4,807		-23.9
Korea, South	0	184	0	0	0	16	-23.9
Korea, South Australia	0 12	184 18	0 0	0	0	16 13	-23.9
Korea, South Australia Guatemala	0 12 0	184 18 0	0 0 0	0 0 0	0 0 128	16 13 0	
Korea, South Australia Guatemala Total	0 12	184 18	0 0	0	0	16 13	-23.9 58.8
Korea, South Australia Guatemala Total Lard	0 12 0 78,031	184 18 0 59,944	0 0 0 75,399	0 0 0 71,148	0 0 128 40,783	16 13 0 64,781	58.8
Korea, South Australia Guatemala Total Lard Mexico	0 12 0 78,031 27,461	184 18 0 59,944 32,878	0 0 0 75,399 23,487	0 0 0 71,148 28,347	0 0 128 40,783	16 13 0 64,781	58.8 -6.3
Korea, South Australia Guatemala Total Lard Mexico Japan	78,031 27,461	184 18 0 59,944 32,878 16	0 0 0 75,399 23,487 0	0 0 0 71,148 28,347 0	0 0 128 40,783 18,849 1,499	16 13 0 64,781 17,665 860	-6.3 -42.6
Korea, South Australia Guatemala Total Lard Mexico Japan Canada	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 0 75,399 23,487 0 598	0 0 0 71,148 28,347 0 596	0 0 128 40,783 18,849 1,499 612	16 13 0 64,781 17,665 860 393	-6.3 -42.6 -35.8
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total	78,031 27,461	184 18 0 59,944 32,878 16	0 0 0 75,399 23,487 0	0 0 0 71,148 28,347 0	0 0 128 40,783 18,849 1,499	16 13 0 64,781 17,665 860	-6.3 -42.6
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total Poultry fat	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 75,399 23,487 0 598 24,825	0 0 71,148 28,347 0 596 29,444	0 0 128 40,783 18,849 1,499 612 21,392	16 13 0 64,781 17,665 860 393 19,741	-6.3 -42.6 -35.8 - 7.7
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 7 5,399 23,487 0 598 24,825	0 0 0 71,148 28,347 0 596 29,444	0 0 128 40,783 18,849 1,499 612 21,392	16 13 0 64,781 17,665 860 393 19,741	58.8 -6.3 -42.6 -35.8 -7.7
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total Poultry fat	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 7 5,399 23,487 0 598 24,825 14,536 10,667	0 0 71,148 28,347 0 596 29,444 14,895 11,065	0 0 128 40,783 18,849 1,499 612 21,392 18,165 13,064	16 13 0 64,781 17,665 860 393 19,741 16,378 10,945	-6.3 -42.6 -35.8 -7.7
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total Poultry fat Canada	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 7 5,399 23,487 0 598 24,825	0 0 71,148 28,347 0 596 29,444 14,895 11,065 854	0 0 128 40,783 18,849 1,499 612 21,392	16 13 0 64,781 17,665 860 393 19,741	58.8 -6.3 -42.6 -35.8 -7.7
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total Poultry fat Canada Mexico	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 7 5,399 23,487 0 598 24,825 14,536 10,667	0 0 71,148 28,347 0 596 29,444 14,895 11,065	0 0 128 40,783 18,849 1,499 612 21,392 18,165 13,064	16 13 0 64,781 17,665 860 393 19,741 16,378 10,945	-6.3 -42.6 -35.8 -7.7
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total Poultry fat Canada Mexico Thailand	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 7 5,399 23,487 0 598 24,825 14,536 10,667 806	0 0 71,148 28,347 0 596 29,444 14,895 11,065 854	0 0 128 40,783 18,849 1,499 612 21,392 18,165 13,064 1,731	16 13 0 64,781 17,665 860 393 19,741 16,378 10,945 2,418	-6.3 -42.6 -35.8 -7.7 -9.8 -16.2 39.7
Korea, South Australia Guatemala Total Lard Mexico Japan Canada Total Poultry fat Canada Mexico Thailand Dominican Republic	0 12 0 78,031 27,461 0 4,085	184 18 0 59,944 32,878 16 1,016	0 0 7 5,399 23,487 0 598 24,825 14,536 10,667 806 770	0 0 71,148 28,347 0 596 29,444 14,895 11,065 854 392	0 0 128 40,783 18,849 1,499 612 21,392 18,165 13,064 1,731 410	16 13 0 64,781 17,665 860 393 19,741 16,378 10,945 2,418 1,300	-6.3 -42.6 -35.8 -7.7 -9.8 -16.2 39.7 217.1

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Table 4. US export custom		<u>-</u>		•		0015	% Change
Product/Country	2010	2011	2012	2013	2014	2015	14/15
Animal protein meals	00/050	007.007	004010	000.007	000 5 / 1	07/ 101	0.4.0
Indonesia ¹	336,350	387,336	224,219	233,906	222,561	276,431	24.2
Mexico ²	72,710	91,425	99,049	83,334	74,866	103,779	38.6
China	13,598	16,356	43,421	48,986	82,697	62,727	-24.1
Canada	43,488	30,333	38,044	43,368	48,695	58,728	20.6
Chile ³	13,128	21,587	57,394	35,970	37,852	57,084	50.8
Vietnam	27,960	34,537	23,663	24,654	31,857	34,553	8.5
Philippines	9,629	4,466	33,035	29,704	12,462	10,603	-14.9
Ecuador ³	7,000	7,200	6,400	9,400	10,034	8,218	-14.9
Thailand	7,019	11,512	12,884	14,951	5,740	5,163	-18.1
United Kingdom	0	0	0	0	0	4,440	
Bangladesh	0	0	1,277	3,425	1,505	3,820	153.8
Honduras	253	167	900	3,406	1,100	3,704	236.7
Malaysia	6	0	2,060	16,902	13,300	1,446	-89.1
Guatemala	18	10	1,037	12,595	7,399	1,381	-81.3
Dominican Republic	140	1,773	881	0	307	1,352	340.4
Costa Rica	1,603	1,948	349	781	749	1,176	57.0
Nigeria	0	0	544	134	70	1,098	1,468.6
Colombia	310	1,001	724	2,276	1,523	950	-37.6
Peru	27	337	680	1,156	994	846	-14.9
Total	536,670	615,784	557,608	579,967	563,706	647,708	14.9
Feather meal							
Indonesia	36,131	36,011	46,929	110,087	98,990	41,750	-57.8
Chile	0	13,697	25,667	52,972	48,135	24,403	-49.3
Canada	9,497	11,632	17,035	8,961	16,227	15,611	-3.8
Vietnam	660	625	95	4,120	7	2,637	
China	0	0	0	183	1,265	977	-22.8
Peru	0	0	0	0	0	578	
Ecuador	150	0	0	0	296	300	1.4
Total	48,923	62,791	92,195	178,815	165,952	87,038	-47.6

Source: Global Trade Atlas.

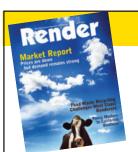
Market Report Continued from page 13

Outlook

Supply outlook for rendered products shows growth during the next 10 years. According to ERS, beef production is expected to grow 10 percent, swine production 13 percent, broiler production 16 percent, and turkey production 14 percent. During the same period, rendered fat production is predicted to grow by 11 percent and processed animal protein meals and feather meal by 15 percent. The low cost of feed ingredients will continue to be a catalyst in the expansion of the livestock and poultry industries. China and other developing nations will remain unknown variables in the growth of the livestock and poultry sectors in the United States. If China's feed production remains stagnant, this could put downward

pressure on demand and continue low prices. Future growth in the US meat sector is dependent on exports. If demand for meat and poultry products in China and other large importing nations decrease, so will US meat production, leading to lower rendered product production.

One additional item of importance that occurred in 2015 and not reported earlier was the retirement of two APHIS export officers. Dr. Bob Bokma, senior veterinarian, and Dr. Kristin Schmitz, senior veterinarian of APHIS' National Import Export Services, retired at the end of last year. Both of these officials had many accomplishments in negotiating trade agreements and eliminating trade barriers that affected the rendering industry during their many years of service. Their dedication and hard work was essential to the development of markets for the rendering industry and they will be missed. **R**



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¹NRA estimates.

²From Mexico customs office.

³From Data Sur.

Food Waste Recycling

Challenges West Coast Renderers

By Tina Caparella

Low commodity prices and new government regulations are making for tough times in the United States rendering industry these days. Yet renderers on the West Coast are seeing one more challenge on their plate: increasing competition for fat and bone material from the food waste recycling movement.

Members of the Pacific Coast Renderers Association (PCRA) met in late February in Carmel Valley, California, to discuss this and other concerns. Ross Hamilton, Darling Ingredients Inc. and immediate past chairman of the National Renderers Association (NRA), stated that the benefits of rendering retail fat and bone include controlling disease/pathogens, providing a good source of nutrition for livestock and pets, and avoiding carbon and greenhouse gas (GHG) emissions when rendered as opposed to other disposal methods. While no specific data has been collected, Hamilton used previous surveys of rendered products to estimate that California rendering facilities process about 2.12 billion pounds of retail fat and bone material annually.

"The loss of all retail fat and bone is equivalent to nearly two rendering plants closing in the state," Hamilton claimed. In addition, if all this material was no longer rendered, about 116 million pounds of protein would need to be replaced, affecting 1.2 million tons of animal feed. This protein loss would mean growing 2.4 million bushels of new soybeans requiring at least 51,000 more acres of land. On the fat side, rendering 100 million pounds of fat and grease in California could produce 12.5 million gallons of biomass-based diesel fuel with a carbon intensity of 37.45 or lower under the state's Low Carbon Fuel Standard. That same fat could also benefit 1.3 million pounds of commercial animal feed, at a four percent inclusion rate.

Dr. Douglas Hepper, California Department of Food and Agriculture (CDFA), informed PCRA members that several companies have approached the department seeking approval to process retail meat material using an enzymatic process to produce a liquid organic fertilizer. One company, California Safe Soils, was given permission to proceed as a research project.

"This is just the tip of the iceberg because of new state organic waste laws," Hepper warned. Several renderers voiced their concerns that CDFA is not protecting the rendering process more to ensure the safety of animal health in the state.

Dennis Albiani, California Grain and Feed Association, confirmed there is increased discussion about organics and food recycling. A Natural Resources Defense Council report



Albiani encouraged renderers to tell their positive story since 100 percent of what renderers collect is organic and mostly food. He focused on rendering's long history of turning animal by-products into livestock and pet foods, and now biofuels. In addition, rendering has a low GHG footprint and employs unionized labor. He and other presenters at the meeting shared the Environmental Protection Agency's Food Recovery Hierarchy chart that shows animal feed and industrial uses as preferred uses of food waste (see chart 1).

"Since 41 percent of feed ingredients come from food by-products, a good story to tell is if these products are not rendered, the feed industry will need to find virgin product," Albiani stated. He urged PCRA members to continue meeting with government agencies to discuss the strengths, attributes, and multiple benefits of rendering, and provide strong science on the industry's GHG footprint in comparison to other disposal methods. Renderers should also build coalitions with labor unions, the livestock industry, renewable fuel producers,

Chart 1. Environmental Protection Agency's Food

Food Recovery Hierarchy

Source Reduction
Reduce the volume of surplus food generated

Feed Hungry People
Donate extra food to food banks, soup kitchens, and shelters

Feed Animals
Divert food scraps to animal feed

Industrial Uses
Provide waste oils for rendering fuel conversion and food scraps digestion to recover energy

Composting
Create a nutrient-rich soil amendment
Landfill/Incineration
Last resort to disposal

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and municipalities to gain support that rendering is the best use for food waste disposal.

Ridley Bestwick, West Coast Reduction (WCR), shared the Canadian renderer's challenge with food waste disposal north of the border. Just as in California, there is also a movement in Calgary, Alberta, toward removing organics from landfills. This has resulted in waste collection companies allowing vegetable and meat products to be placed in the same collection bin, which then goes for composting or anaerobic digestion. Because of this, WCR lost a 30-year customer and 500 million pounds in bone and fat annually as it was easier for the grocery chain to put all food waste product, including meat, into one bin than to separate the material.

"Waste management companies are targeting our customers," Bestwick declared. "Bone and fat accounts will continue to erode unless renderers come up with a solution." WCR is examining depackaging systems and dry and wet digesters in an effort to retain these types of accounts. Bestwick believes the rendering industry should get more involved with restaurant associations to educate that segment on the benefits of rendering.

Bestwick then discussed the sustainability movement, which is also affecting rendering. He believes that sustainability is not science-based but driven by passion to meet the social, ecological, and economic needs of the planet's future. Threats to rendering arising from sustainability interests include:

- customer fear of unsafe products due to animal diseases:
- regulations that restrict plant operations or product markets;
- subsidized alternative disposal methods such as anaerobic digestion or composting;
- vegetarian diets for livestock and pets due to perceived safety or quality of meat and its byproducts; and
- human vegetarianism causing a shift away from animal proteins.

Bestwick presented NRA's work so far on developing a sustainability profile for the rendering industry. Various metrics need to be collected and presented to address the above threats and show the sustainability of rendering, such as:

- the large amount of fats and oils collected and kept out of the municipal wastewater systems;
- the vast quantity of organics already diverted from landfills by rendering;
- the increasing volume of animal fat and used cooking oil being used as a feedstock in renewable fuels;
- its negative carbon footprint on the environment; and
- its economic contribution in the form of employment, community involvement, and investment into research and development.

Nancy Foster, NRA president, explained the food waste movement in Washington, DC, where a bill has been introduced with the goal to "save money and feed more Americans by reducing the amount of food that ends up getting sent to landfills." The bill would make composting a practice eligible for federal financial and technical support, and establish an infrastructure fund for construction of large-scale composting and food-to-waste facilities. While the bill will not be moving



Incoming PCRA President Doug Smith (*left*), Baker Commodities, presents a plaque to outgoing president Andy Andreoli, also of Baker Commodities, for his years of service to the organization.

forward soon, the topic is being discussed in advance of the 2018 farm bill.

"This will be a big mountain to climb and is a high priority for NRA," Foster commented. Other challenges NRA is focused on include environmental regulations that could require clean air permits if renderers need to upgrade a facility and trade pacts that could help get United States tallow back into Europe for industrial purposes. Foster noted that NRA is a strong supporter of the Renewable Fuel Standard and tax credits for biofuels.

Jason Andreoli, Baker Commodities, updated conference attendees on a South Coast Air Quality Management District proposed rule targeting rendering odors in the Los Angeles, California, area, even though there have been few complaints in the past 15 years. He said there is no scientific evidence for the rule, which renderers have been fighting for two years. Although great progress has been made, the area's renderers may soon need to seek legal assistance on the rule.

"This could be a template that could spread throughout the state and eventually nationwide," Andreoli warned. R



Tyson Keever (*right*), SeQuential Biofuels, queries a speaker about California's inedible kitchen grease program.

Battle for Meat Products in the Golden State

By Tina Caparella

California renderers are being challenged due to increased interest in meat by-products that qualify as organic material for carbon credits and subsidies under the state's greenhouse gas reduction program. The Rendering Industry Advisory Board met with California's Department of Food and Agriculture (CDFA) in February to discuss this and other issues, including the state's grease theft program.

Dr. Doug Hepper, CDFA Meat, Poultry, and Egg Safety Branch, reported that since 2013, the department has been contacted numerous times by both private and public entities that want to process "organic waste" materials that include meat scraps and other meat products from grocery stores. CDFA is reluctant to issue rendering licenses for operations using alternative technologies other than rendering due to concerns about the ability to meet the state's "free of pathogens" standard. The first request in 2013 from California Safe Soils LLC was approved by CDFA as a research project to process organic waste material, including meat scraps and other meat material, from grocery markets using an enzymatic digestion system to create an organic liquid soil amendment. Now another company is seeking approval to also process these same organic waste materials from retail stores using a different technology to again produce an organic soil amendment.

However, some companies have not sought CDFA's approval. Early in 2015, the department was informed that a supermarket in Sacramento had discontinued having its inedible meat and poultry products picked up by a local renderer and the material was instead collected by a "trash company." Under California law, all meat products not intended for human consumption must be rendered. Upon being contacted by CDFA, the trash company subsequently halted the collection "reluctantly and under protest," according to



Hepper. The company believes the "inspected" meat waste from retail establishments can be safely managed within the solid waste regulatory framework under CalRecycle and the extensive statewide network of local enforcement agencies.

Dr. Ross Hamilton, Darling Ingredients Inc., pointed out that this situation is "food diversion" whereas rendering is recycling. In addition, many of these organic waste programs are subsidized by government funds creating an unfair advantage for renderers. California State Veterinarian Dr. Annette Jones confirmed the interest is "about the nitrogen" for the state's carbon program and that CDFA must continually explain to these entities the department's concerns are pathogens and animal safety.

As for CDFA's inedible kitchen grease (IKG) program, Hepper noted that under a new law that went into effect January 1, 2015, four companies were denied IKG transporter registrations or renderer licenses last year because of prior illegal activity. Two of the companies appealed the denials, with one hearing officer ruling in CDFA's favor while another ruled for the plaintiff due to the hearing officer's interpretation of the law describing "collection center" at the time of the activity in 2014. The definition has since been clarified in current law.

For 2016, only one registration has been denied due to lower violation activity in 2015. Michael Koewler, Sacramento Rendering Company, said IKG theft is down not only because of lower prices but also the effect of the state's program. CDFA inspectors reported that word of the new stricter laws has gotten out on the street, deterring thefts. Because of this, the board instructed the department to investigate interceptor grease and perform random audits of transporter manifests instead of only when a complaint is filed.





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Focus Shifting Away from Biofuels in Europe?

By Bruce Ross, Ross Gordon Consultants SPRL

The beautiful city of Amsterdam, the Netherlands, hosted the 11th annual World Bio Markets Conference in mid-March. This correspondent was invited to sit on a panel titled "Feedstocks – Securing sustainability, cost effectiveness, flexibility, and security." Others on the panel included a financier, a crop developer, and a grower of pongamia.

It has been three years since this author last attended the event and much has changed over that time, and not just the price of oil. Previously it was called the World Biofuels Markets (co-located with the Bio-based Chemicals Conference and Exhibition). Now it is the World Bio Markets Conference, which reveals straightaway that the focus in Europe has shifted – somewhat – away from biofuels and toward biobased chemicals and biomass power markets. This shift is already reflected in the European Union's (EU's) 2030 Energy Strategy that, if followed as planned, will remove the targets and mandates for transportation fuels.

First - Oil Price Prospects

No biofuels discussion would be complete without analysis of the state of the oil market. James Challinor, downstream oil and biofuels analyst at Wood MacKenzie, gave his views on the prospects for oil prices in the short- to medium-term. He is relatively optimistic that the current price dip is supplyled as demand is reasonably strong. Challinor also believes a moderate price rise can be expected, perhaps to somewhere in the \$60 to \$80 per barrel bracket. The "loose cannons" are the Organization of the Petroleum Exporting Countries, or OPEC, members Iran and Iraq. In their search for market share, they could over-produce and help bring prices down again. Another delegate argued that the oil price spike seen in the period before 2014 had been more of an anomaly than the current dip in prices. He expects the fundamentals of supply and demand to re-balance and feels confident that a price around \$50 per barrel can be expected.

This view seemed to be shared by most of the audience, suggesting that market opportunities for biofuels will not be created by overpriced oil. The bio sector will have to fill specific supply gaps and/or serve Conference of the Parties, or COP, 21 climate change objectives.

What about Mandates for Biofuels?

Challinor felt that mandates remain the key to market penetration for biofuels in the short- to medium-term. Again, this seemed to be the consensus in the room, which included a representative from the United States Bioenergy Technologies Office, Department of Energy, who talked of the importance of policy in general and mandates in particular.

One had to feel some sympathy for one speaker, a Spanish trader in animal fats and used cooking oil, who was delighted to tell the audience that after years of arguments and contradictory policies, the Spanish government is going to introduce double counting of used cooking oil methyl esters toward the EU renewable energy targets in 2017. The only

problem is the 2030 Energy Strategy contains no target for renewable fuels as a percentage of transport fuels, so after 2020 there will be no target to double count against. His efforts to change Spanish policy may thus have been in vain, which is a pity as he already imports from North Africa and South America and would be interested in finding other suppliers.

Most participants wanted mandates of some sort to be retained in the EU. Given the importance that the biofuels sector attaches to this, it was surprising that there was no speaker from the European Commission to explain the likely course of policy changes in the coming years.

The Public Image of Biofuels

Many speakers spoke eloquently of the need for the biofuels sector to work harder to improve the public image of all biofuels and renewable fuels, not just palm oil-derived fuels. Non-government organizations (NGOs) and others have stolen the moral high ground and the good news about biofuels is being swamped by the negative messages sent out by images of burning tropical forests, indirect land use change, food-versus-fuel arguments, and more. For example, a senior member of the European Parliament said recently that "ethanol was a mistake." This implies that the biofuels sector is simply not putting sufficient resources into improving its messages. NGOs, it seems, devote plenty of money to this. It will be difficult for the biofuels industry to make up for lost ground when oil prices are low. Biofuels have simply slipped down the political agenda, particularly in the EU.

Given the importance biofuels players attach to mandates and other policy incentives, but the poor image biofuels are enduring at present, the sector certainly has its work cut out for it if it is to stop the focus shifting away from biofuels. On that note, the conference was still able to attract a number of venture capitalists and other financiers. However, one of them was adamant that he would no longer be investing in biofuels – it is the chemicals sector that interests him.

Hydro-treated Vegetable Oil

While it seems clear that the future for first generation biofuels is going to be difficult, there was more optimism among delegates about cellulosic fuels and, in particular, hydro-treated vegetable oil. An analyst on alternative fuels from Lux Research specifically mentioned investments made by Diamond Green, Renewable Energy Group, and Neste as indicative of confidence in this segment of the industry.

The pessimism about first generation fuels was not 100 percent as efforts are being made by some producers to bolton new technology to existing production plants.

The highlight of the conference had nothing to do with biofuels. The "exclusive guest speaker" was Sir Ranulph Fiennes, known as "the world's greatest living explorer." It was interesting hearing about his various escapades, but this author will not be going where he has been, whether or not the journey is powered by biofuels.

Washington Continued from page 7

of their product is mandated to be blended with gasoline has not helped their case. Add to the mix USDA's increasing use of federal dollars to help install ethanol blender pumps around the country and the fight to preserve the RFS for ethanol in its current form is an increasingly uphill climb.

In the "advanced biofuels" segment of biomass-based alternative fuels – biodiesel, renewable diesel, and cellulosic ethanol – the story is more positive given that the still relatively young industry can point to both plant-based and animal-based biodiesel, as well as the quickly growing cellulosic ethanol side of the market.

Biodiesel refiners and renderers made a smart political move during last fall's EPA go-around on the RFS by staying out of the corn ethanol battle and focusing on EPA education to build their case for higher RFS blend mandates. The National Biodiesel Board is also quietly building support for a shift from a federal biodiesel blender's tax credit paid directly to gasoline makers to a producer's tax credit paid to the advanced fuel refiner. In a perfect world, North American biodiesel producers would qualify for the credit, not just those in the United States, once it operates as essentially one market.

Sensing there is a growing political willingness to allow the ethanol RFS to die a natural death – it expires in 2022 unless Congress renews it – some current congressional RFS supporters are saying they would support ending the program. However, Congress must limit EPA's discretion over the current program, including the agency's tendency to ignore statutory mandates on how much biofuel must be blended on an

annual basis. By signaling a willingness to revisit the RFS, these lawmakers believe they give investors and ethanol companies time to plan for an industry without federal supports.

The outcome of the post-election lame duck session where many of these issues will land hinges on which party wins control of Congress and who will be sitting in the White House for the next four years. If the GOP sweeps the board, Democrats will make the party work for everything it tries to achieve in lame duck. Obama will also have seriously sharpened his veto pen. If the chambers split between a GOP House and a Democrat Senate, the party controlling the White House will make the plea that the new president should be able to at least set an agenda rather than being handed policies and programs that may have to be undone.

For the most part, must-pass legislation (i.e., spending, reauthorizations, etc.) will be finished in lame duck. For the rest of it, we look forward to more of the same in 2017.

Also unresolved and likely to remain that way until the next Congress — at least according to Majority Leader Mitch McConnell (R-KY) who is backed by Senate Judiciary Committee Chair Charles Grassley (R-IA) — is the fate of Obama's nominee to replace the late Supreme Court Associate Justice Antonin Scalia. While no one talks about Judge Merrick Garland's lack of qualifications, he is currently chief judge of the US Court of Appeals for the District of Columbia, Senate GOP leadership says Scalia's replacement should not be considered during the politically-charged election cycle but should be made by the new president elected in November. Obama asserts it is his constitutional duty to nominate and the Senate's duty to act on his nominee. So far, neither side has blinked.





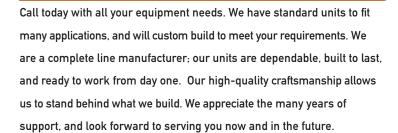




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EQ Equipment
ET Edible Tallow
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FA Fatty Acids
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Central Bi-Products

Farmers Union Industries LLC P.O. Box 359 Long Prairie, MN 56346 Phone: 507-637-2938 Fax: 507-637-5409

Fax: 507-637-5409 Products: FM,PB,SF,TG,HI,MM, MB,PM,BFP,FGAF,BM,OT(Pet

food)

Region: Central

Darling Ingredients Inc. - Headquarters

251 O'Connor Ridge Blvd., Suite 300 Irving, TX 75038 www.darlingii.com Phone: 972-717-0300 Fax: 972-717-1588 E-mail: info@darlingii.com Region: Central, Western, Eastern

Darling Ingredients Inc. - Regional Office

P.O. Box 615
Des Moines, IA 50306
www.darlingii.com
Phone: 515-288-2166
Fax: 515-288-1007
Region: Central, Western,
Eastern

Darling Ingredients Inc.

Griffin Industries LLC offices 4221 Alexandria Pike Cold Spring, KY 41076 www.darlingii.com Phone: 859-781-2010 Fax: 859-572-2575 Region: Central, Western, Eastern

Rothsay

A Division of Darling International Canada Inc. 150 Research Lane, Suite 307 Guelph, ON, N1G 4T2 Canada www.rothsay.ca Phone: 519-780-3342 Fax: 519-780-3360 Region: Central

Terra Renewal

Part of Darling Ingredients Inc. 4221 Alexandria Pike Cold Spring, KY 41076 www.terrarenewal.com Phone: 479-668-4503 Region: Central

For rendered fat sales

DAR PRO Ingredients, a Darling Brand

www.darpro-ingredients.com Contact: Michael Rath Phone: 800-669-1209 Fax: 972-717-1959 E-mail: fats-proteins@ darpro.com Products: BLF,BR,CN,DL,EQ,ET, EX,FGAF,HI,LT,RF,SF,ST,TG,YG, OT (bio-based diesel) For rendered protein sales

DAR PRO Ingredients, a Darling Brand

www.darpro-ingredients.com Contact: Doyle Nauman Phone: 877-659-8438 Fax: 859-781-2569 E-mail: fats-proteins@ darpro.com Products: BLP,BM,CM,EQ,EX, PB,PM,FM,LT,MB,MM,OT (Organic fertilizer, specialty proteins, flavor enhancers)

For restaurant services

DAR PRO Solutions, a Darling/Griffin Brand

www.darpro-solutions.com Contact: Todd Mathes Phone: 972-717-0300 Fax: 972-717-1588 E-mail: recyclingservices@darpro.com

Rousselot

Part of Darling Ingredients Inc. 1231 S. Rochester Street, Suite 250 Mukwonago, WI 53149 www.rousselot.com Contact: Lawrence Jeske Phone: 262-363-6051 Fax: 262-363-2789 E-mail: larry.jeske@ darlingii.com Products: Gelatin, hydrolyzed collagen

Sonac USA LLC

Part of Darling Ingredients Inc.
1231 S. Rochester Street,
Suite 250
Mukwonago, WI 53149
www.sonac.biz
Contact: Lawrence Jeske
Phone: 262-363-6051
Fax: 262-363-2789
E-mail: larry.jeske@
darlingii.com
Products: Spray-dried blood
and plasma products, gelatin,
hydrolyzed collagen, protein
isolates, other functional proteins
Region: Central

Encore Oils LLC

SeQuential Pacific Biodiesel 3333 NW 35th Avenue, Building C
Portland, OR 97210 www.encoreoils.com
Contact: Tyson Keever
Phone: 800-447-3794
Fax: 503-296-5490
E-mail: tysonk@ salembiodiesel.com
Products: MB,TG,Lard
Region: Western

Foster Farms

P.O. Box 457
Livingston, CA 95334
www.fosterfarms.com
Contact: Dennis Richmond
Phone: 318-368-4344
Fax: 318-368-4310
E-mail: dennis.richmond@
fosterfarms.com
Products: PM,FM,PF,CM,OT
(organic fertilizers)
Region: Western

G.A. Wintzer & Son Co.

204 W. Auglaize Street
P.O. Box 406
Wapakoneta, OH 45895
www.gawintzer.com
Contact: Gus Wintzer
Phone: 419-739-4900
Fax: 419-738-9058
E-mail: gus@gawintzer.com
Products: EX,RF,SF,TG,FGAF,HI,
MB,FM,PB
Region: Eastern

Gelita USA

Gelita AG P.O. Box 927 Sioux City, IA 51102 www.gelita.com Contact: Tonya Hanson Phone: 712-943-5516 Fax: 712-943-3372 E-mail: tonya.hanson@ gelita.com Products: MB,SF,Gelatine Region: Central

Gelita USA - Chicago 10 Wentworth Avenue Calumet City, IL 60409 Contact: Jim Boguslawski Phone: 708-730-5513 Fax: 708-891-8432 E-mail: jim.boguslawski@ gelita.com Products: SF,Gelatine

Region: Central

Holmes By-Products Inc.

3175 T.R. 411 Millersburg, OH 44654 Contact: Abe L. Miller or Dennis Koshmider Phone: 330-893-2322 Fax: 330-893-2321 Products: SF,HI,MM,MB,PB,FM Region: Eastern

Hormel Foods Corp.

1 Hormel Place
Austin, MN 55912
Contact: Tim Carlson
Phone: 507-437-5207
Fax: 507-437-5367
E-mail: ttcarlson@hormel.com
Products: MB,HI,SF,BM,Lard,
Deodorized edible lard/tallow
Region: Central

Hormel Foods - Austin 500 14th Avenue NE Austin, MN 55912 Contact: Dean Steines Phone: 507-437-5373 Fax: 507-437-5524 E-mail: dwsteines@hormel.com Products: MB,HI,SF,BM,Lard, Deodorized edible lard/tallow

Hormel Foods - Fremont 900 S. Platte Avenue Fremont, NE 68025 Contact: Jim Farnsworth Phone: 402-721-2300, x3210 Fax: 402-721-0445 E-mail: ilfarnsworth@

hormel.com

Products: MB,HI,SF,BM,Lard

Region: Central

Region: Central

Farmer John - Clougherty Packing

Hormel Foods Corp. 3049 E. Vernon Avenue Los Angeles, CA 90058 Contact: Fernando Zamora Phone: 323-583-4621, x1229 Fax: 323-584-1699 E-mail: fzamora@ farmerjohn.com Products: MB,SF,BM,Lard Region: Central

JBS Swift & Company - Headquarters

1770 Promontory Circle Greeley, CO 80634-9039 Contact: Jim Fisher Phone: 970-506-8354 Fax: 970-506-8320 E-mail: jim.fisher@jbssa.com Products: TG,RF,HI,MBM,BM,EX Region: Western

<u>Plant Locations</u>

JBS Swift & Company

800 N. 8th Avenue Greeley, CO 80634 Contact: Keith Neddermeyer Phone: 970-304-7247 Fax: 970-304-7320 E-mail: keith.neddermeyer@ jbssa.com Products: TG,HI,MB,BM,EX Region: Western

JBS Swift & Company

410 N. 200 W Hyrum, UT 84319 Contact: Elton Varner Phone: 435-245-6456 Fax: 435-245-5207

E-mail: elton.varner@jbssa.com Products: TG,RF,HI,MBM,BM,EX

Region: Western

JBS Swift & Company

P.O. Box 2137 Grand Island, NE 68801 Contact: Steve Caravan Phone: 308-384-5330 Fax: 308-389-4834 E-mail: steve.caravan@ ibssa.com

Products: TG,HI,MB,BM,EX

Region: Central

JBS Swift & Company

P.O. Box 524 Dumas, TX 79029 Contact: Needham Carswell Phone: 806-966-5103 Fax: 806-966-5481 E-mail: needham.carswell@

jbssa.com

Products: TG,HI,MB,BM,EX

Region: Central

1200 Story Avenue

JBS Swift & Company

Louisville, KY 40206 Contact: Dave Dewitt Phone: 502-582-0235 Fax: 502-582-6295 E-mail: dave.dewitt@jbssa.com Products: TG,MBM,BM Region: Eastern

JBS Swift & Company

North & 10th Avenue Marshalltown, IA 50158 Contact: Jon Holden Phone: 641-752-7131 Fax: 641-752-8509 E-mail: jon.holden@jbssa.com Products: TG,MBM,BM

Region: Central

JBS Swift & Company

1700 N.E. Highway 60 Worthington, MN 56187 Contact: Kevin Schweigert Phone: 507-372-2121 Fax: 507-372-4611 E-mail: kevin.schweigert@ ibssa.com Products: TG,MBM,BM

Region: Central

Mountain View Rendering Company

JBS Souderton Inc. 173 Rocco Road Edinburg, VA 22824 Contact: Jason Janita Phone: 540-984-4158 ext. 239

Fax: 540-984-4159

E-mail: jason.janita@jbssa.com Products: SF,FM,PB,PF,BM,

FGAF,OT Region: Eastern

JBS - MOPAC

JBS Souderton Inc. P.O. Box 64395 Souderton, PA 18964 Contact: Ken Gilmurray Phone: 215-703-6085 E-mail: ken.gilmurray@ ibssa.com Products: BLF,BLP,FGAF,SF,TG, EX,LT,MB,PB,BM Region: Eastern

JBS Packerland Tolleson

P.O. Box 99 Tolleson, AZ 85353 Contact: Jeremy Eatherton Phone: 970-506-8355 E-mail: jeremy.eatherton@ jbssa.com

Products: DT,HI,MB,SF,TG Region: Western

JBS Packerland **Green Bay**

P.O. Box 23000 Green Bay, WI 54305 Contact: Jim Holly Phone: 970-506-8355 E-mail: jim.holly@jbssa.com Products: DT,HI,MB,SF,TG Region: Central

Pilgrim's Pride Corp. -**Rendering Headquarters**

P.O. Box 1268 Mt. Pleasant, TX 75456 www.pilgrims.com Contact: Brandon Lairmore Phone: 903-434-1190 Fax: 972-290-8345 E-mail: brandon.lairmore@ pilgrims.com

Products: SF,FM,BM,PF,PM Region: Central

Plant Locations

Pilgrim's Pride Corp. -

Broadway 330 Co-Op Drive Timberville, VA 22853 Contact: Hal Davis Phone: 540-901-6130 Fax: 540-901-6181 E-mail: hal.davis@ pilgrims.com Products: SF,PM,FM,PB,PF Region: Eastern

Pilgrim's Pride Corp. -

Moorefield 129 Potomac Avenue Moorefield, WV 26836 Contact: Mitch Burns Phone: 304-538-7834 Fax: 304-538-3540 E-mail: mitch.burns@ pilgrims.com Products: SF,PM,FM,PF,PB Region: Eastern

Pilgrim's Pride Corp. -

Mt. Pleasant 1220 Pilgrim Street Mt. Pleasant, TX 75455 Contact: William Welborn Phone: 903-575-3909 Fax: 903-575-3901 E-mail: william.welborn@ pilgrims.com Products: SF,PM,FM,BM,PB,PF

Region: Central

Russellville

Pilgrim's Pride Corp. -

3433 Bernice Avenue Russellville, AR 72802 Contact: Gary Reddell Phone: 479-968-2567 Fax: 479-968-3171 E-mail: gary.reddell@ pilgrims.com Products: SF,MB,PM,FM Region: Central

Pilgrim's Pride Corp. -

Sumter 2050 Highway 15 South Sumter, SC 29150-8799 Contact: Robert Canty Phone: 803-481-8555, x5100 Fax: 803-481-4263 E-mail: robert.canty@ pilgrims.com Products: SF,PM,FM,PB,PF Region: Eastern

John Kuhni Sons Inc.

P.O. Box 15 Nephi, UT 84648 Phone: 435-758-7600 Fax: 435-758-7610 Products: SF,TG,HI,MB,FGAF, OT(Transporter) Region: Western

Kaluzny Bros. Inc.

1528 Mound Road Joliet, IL 60436-9808 Contact: David Kaluzny II Phone: 815-744-1453 Fax: 815-729-5069 E-mail: dkaluzny2@aol.com Products: SF,TG,DT,BLF,FGAF, HI,CWG,YG

Region: Central

Kruger Commodities Inc. - Headquarters

14344 Y Street, Suite 202 Omaha, NE 68137 www.krugerinc.com Contact: James H. Kruger Phone: 402-896-1324 Fax: 402-896-1784 E-mail: jim@krugerinc.com Region: Central

Kruger Commodities, Inc.

5900 Old Allegan Road Hamilton, MI 49419 Contact: Terry Pfannenstiel Phone: 269-751-0560 Fax: 269-751-8929 E-mail: terry@krugerinc.com Products: FM,MB,TG,YG Region: Eastern

KCI Restaurant Services

Kruger Commodities Inc. 4125 Dahlman Avenue Omaha, NE 68107 Contact: Scott Ethridae Phone: 402-898-4700 Fax: 402-898-4702 Products: YG Region: Central

KCI Restaurant Services

Kruger Commodities Inc. 3370 L Avenue Tama, IA 52339 Contact: Bill Farris Phone: 641-484-3823 Fax: 641-484-3825 Products: DT,TG,YG Region: Central

Maple Lodge Farms Ltd.

8301 Winston Churchill Blvd. Brampton, ON, L6Y 0A2 Canada Contact: David Willison Phone: 905-455-8340 x 2359 Fax: 905-455-8370 E-mail: dwillison@ maplelodgefarms.com Products: SF,PB,FM Region: Eastern

Mendota Agri-Products Inc. - Headquarters

712 Essington Road Joliet, IL 60435 www.mendotaagriproducts.com Contact: John Mahoney Phone: 815-730-2080 Fax: 815-730-2087 E-mail: johnm@ mahoneves.com Products: BLF,DT,FGAF,SF,TG,YG Region: Central

Mendota Agri-Products Inc.

P.O. Box 439 448 N. 3973 Road Mendota, IL 61342 www.mendotaagriproducts.com Contact: John Setchell Phone: 815-539-5633 Fax: 815-539-7943 E-mail: johns@mendag.com Products: BLF,DT,FGAF,SF,TG, MB,YG Region: Central

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Mahoney Environmental

712 Essington Joliet, IL 60435

www.mahoneyenvironmental.com Contact: Rick Sabol Phone: 815-302-3912 Fax: 815-730-2087 E-mail: ricks@mahoneyes.com

Product codes: BLF,FGAF,LG,

YG,TG

Mountaire Farms of Delaware

Mountaire Corporation P.O. Box 1320 29093 John J. Williams Hwy Millsboro, DE 19966 www.mountaire.com Contact: Brian Schoeberl Phone: 302-934-4178 Fax: 302-934-3445 E-mail: bschoeberl@ mountaire.com Products: SF,PB,FM Region: Eastern

National Beef Packing Company LLC -Headquarters

P.O. Box 20046 Kansas City, MO 64195-0046 www.nationalbeef.com Contact: Doyle Leefers Phone: 800-449-2333 Fax: 816-713-8859 E-mail: doyle.leefers@nationalbeef.com Products: SF,TG,HI,MM,MB,BM,EX Region: Central

National Beef - Dodge City 2000 E. Trail Street Dodge City, KS 67801 Contact: Randy Lyle or Mike Clayton Phone: 620-227-7135 Fax: 620-338-4339 E-mail: randy.lyle@ nationalbeef.com or mlclayton@nationalbeef.com Products: SF,TG,HI,MM,MB,

BM,EX Region: Central

National Beef - Liberal P.O. Box 978 Liberal, KS 67905

Contact: Arlie Wright Phone: 620-624-1851 Fax: 620-626-0285 E-mail: alwright@ nationalbeef.com

Products: SF,TG,HI,MM,MB,

BM,EX Region: Central

Nutri-Feeds Inc.

101 SE 11th Avenue Amarillo, TX 79101 Contact: Garth Merrick Phone: 806-350-5525 Fax: 806-357-2292 E-mail: garth@ merrickpetcare.com Products: TG,MB Region: Central

Protein Products Inc. - Headquarters

P.O. Box 2974 Gainesville, GA 30503 www.proteinproductsinc.com Contact: Jeff Gay Phone: 770-536-3922 Fax: 770-536-8365 E-mail: jeffg@ppicorp.com Region: Eastern

Protein Products Inc.

1042 Highway 3 Sunflower, MS 38778 www.proteinproductsinc.com Contact: Eric Hilley Phone: 770-536-3922 Fax: 770-536-8365 E-mail: erich@ppicorp.com Region: Eastern

Sacramento Rendering Company

SRC Companies
11350 Kiefer Boulevard
Sacramento, CA 95830
Contact: Michael Koewler
Phone: 916-363-4821
Fax: 916-363-8641
E-mail: michaelkoewler@
aol.com
Products: EX,SF,TG,HI,MM,MB,DT,FGAF,BFP
Region: Western

Reno Rendering

SRC Companies 1705 N. Wells Avenue Reno, NV 89512 Phone: 800-733-6498 Products: Transfer station Region: Western

Salinas Tallow Co. LLC

1 Work Circle Salinas, CA 93901 Contact: William Ottone Phone: 831-422-6436 Fax: 831-422-6231 E-mail: saltalco@aol.com Products: YG,HI,MB,Fish meal Region: Western

Sanimax - Headquarters

9900 Maurice-Duplessis Montreal, QB, H1C 1G1 Canada www.sanimax.com Contact: Martin Couture Phone: 514-648-6001 or 888-495-9091 Fax: 514-648-3013 E-mail: info@sanimax.com Region: Eastern

Sanimax

P.O. Box 45100

2001 Avenue de La Rotonde Charny, QB, G6X 3R4 Canada www.sanimax.com Contact: Vincent Brossard Phone: 418-832-4645, x3190 fax: 418-832-6995 E-mail: info@sanimax.com Products: EX,FM,PB,SF,TG,BM, RF,FGAF,BLF,HI,PM Region: Eastern

Sanimax

Montreal, QB, H1C 1G1 Canada www.sanimax.com Contact: Eric Caputo Phone: 514-648-6001, x3249 Fax: 514-648-0597 E-mail: info@sanimax.com Products: EX,FM,PB,SF,TG,BM, RF,FGAF,BLF,HI,PM Region: Eastern

9900 Maurice-Duplessis

Sanimax

P.O. Box 10067 2099 Badgerland Drive Green Bay, WI 54303 www.sanimax.com Contact: Donn Johnson Phone: 920-494-5233 Fax: 920-494-9141 E-mail: info@sanimax.com Products: EX,SF,TG,HI,DT,FGAF, MB,BFP Region: Central

Sanimax

P.O. Box 56 505 Hardman Avenue South St. Paul, MN 55075 www.sanimax.com Contact: Donn Johnson Phone: 651-451-6858 Fax: 651-451-6542 E-mail: info@sanimax.com Products: EX,SF,TG,MB,BM, MM,FGAF,FM,PB,HI,BFP,RF Region: Central

Sanimax

605 Bassett Street
DeForest, WI 53532
www.sanimax.com
Contact: Bill Molander
Phone: 608-846-5466
Fax: 608-846-5370
E-mail: info@sanimax.com
Products: SF,TG,FGAF
Region: Central

Simmons Feed Ingredients

10700 S. State Highway 43 Southwest City, MO 64863 www.simmonsfeedingredients.com Contact: Ken Wilson Phone: 417-762-3001 Fax: 417-762-3867 E-mail: ken.wilson@ simfoods.com Products: SF,PB,PM,FM Region: Central

Smithfield

111 Commerce Street Smithfield, VA 23430 www.smithfieldfoods.com Contact: Todd Scherbing Phone: 757-357-3636 Fax: 757-357-1624 E-mail: todd.scherbing@sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Eastern

Smithfield - Sales 111 Commerce Street Smithfield, VA 23430 Contact: Gregg Redd Phone: 757-357-1636 Fax: 757-357-1624 E-mail: gregg.redd@sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Eastern

Smithfield - Clinton 424 E. Railroad Street Clinton, NC 28328 Contact: Donald Stegal Phone: 910-627-3742 Fax: 910-299-3001 E-mail: donald.stegal@ sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT (Heparin, plasma, runners, hydrolized hog hair) Region: Eastern

Smithfield - Crete 2223 County Road I Crete, NE 68333 Contact: Bob Pracheil Phone: 402-826-8885 E-mail: bob.pracheil@sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Central

Smithfield - Dennison 800 Industrial Drive Dennison, IA 51442 Contact: Ron Pankau Phone: 800-831-1812 E-mail: ronny.pankau@ sf-fl.com

Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Central

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Smithfield - Kansas City 11500 NW Ambassador Drive Kansas City, MO 64195 Contact: Brenda Lewis E-mail: brenda.lewis@sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Central

Smithfield - Milan 22123 Highway 5 Milan, MÖ 63556 Contact: Gary Banner Phone: 660-865-4061 E-mail: gary.banner@sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Central

Smithfield - Monmouth 1220 N. 6th Street Monmouth, IL 61462 Contact: Roderick Davis Phone: 800-298-4682 E-mail: roderick.davis@ sf-fl.com

Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair)

Region: Central

Smithfield - Sioux Falls 1400 N. Weber Avenue Sioux Falls, SD 57103 Contact: Dave DeBoer Phone: 605-330-3295 E-mail: david.deboer@ jmfg.com

Products: BFP,TG,FGAF,MM, EX,OT(Pet food meat products)

Region: Central

Smithfield Foods -

Smithfield 501 N. Church Street Smithfield, VA 23430 Contact: John Acevedo Phone: 757-357-3131 ext. 2750 E-mail: john.acevedo@ sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Eastern

Smithfield - Tar Heel 15855 Highway 87 West Tar Heel, NC 28392 Contact: Jeff Brock Phone: 910-879-5758 ext. 758 E-mail: jeffery.brock@sf-fl.com Products: SF,RF,HI,LG,MM,MB, BM,EX,OT(Heparin, plasma, runners, hydrolized hog hair) Region: Eastern

Coastal Protein

1600 Martin Road Godwin, NC 28344 Contact: Blake Bullard Phone: 910-567-5604 E-mail: bbullard@ coastalproteins.com Products: MM,LG Region: Eastern

Pine Ridge Farms

1800 Maury Street Des Moines, IA 50317 Contact: Brady Stewart Phone: 515-266-4100 E-mail: bstewart@ pineridgefarmspork.com Products: MM,LG Region: Central

South Chicago Packing Company

16250 S. Vincennes Avenue South Holland, IL 60473 www.miniat.com Contact: Mike Botelho Phone: 708-589-2432 Fax: 708-589-2532 E-mail: mbotelho@miniat.com Products: ET,RF,SF,TG,EX Region: Central

Tallowmasters LLC

9401 NW 106th Street Suite 102 Medley, FL 33178 www.tallowmasters.com Contact: Glenn Martin Phone: 305-887-7536 Fax: 305-884-1719 E-mail: info@tallowmasters.com Products: EX,SF,TG,FGAF,MB Region: Eastern

Tyson Foods Inc. -Headquarters

2200 Don Tyson Parkway, CP721 Springdale, AR 72762 www.tyson.com Contact: Bo Watson Phone: 479-290-2897 E-mail: bo.watson@tyson.com Products: FM,PB,PM,PF,OT Region: Central

Plant locations

Cullman Blending

P.O. Box 1144 Cullman, AL 35055 Contact: Mike Lankford Phone: 256-734-7100 Fax: 256-734-4521

Pine Bluff Blending

4211 Emmett Sanders Road Pine Bluff, AR 71601 Contact: Mike Lankford Phone: 870-534-7276 Fax: 870-534-7273

RVAF - Clarksville 1238 Market Street Clarksville, AR 72830 Contact: Frank Fox Phone: 479-754-3441 Fax: 479-754-8018

RVAF - Forest 11634 Hwy 80 W Forest, MS 39074 Contact: Reed Kilpatrick Phone: 601-469-8301 Fax: 479-717-0198

RVAF - Harmony 501 Sheffield Road Harmony, NC 28634 Contact: Gregg Wikstrom Phone: 704-546-2602 Fax: 704-546-5944

RVAF - Robards (Henderson) 14660 U.S. Hwy 41 S Robards, KY 42452 Contact: Mark Badertscher Phone: 270-521-3160 Fax: 270-521-3181

RVAF - Scranton 7755 N. Hwy 393 S Scranton, AR 72863 Contact: Jim Rofkahr Phone: 479-938-2025 Fax: 479-757-7731

RVAF - Sedalia 20003 Menefee Road Sedalia, MO 65301 Contact: Jim Robejsek Phone: 660-826-7071 Fax: 660-826-7119 E-mail: james.robejsek@ tyson.com

RVAF - Seguin 1200 W. Kingsbury Street Seguin, TX 78155 Contact: Keith Yovonavich Phone: 830-401-8842 Fax: 479-203-4221

RVAF - Temperanceville 11224 Lankford Hwy Temperanceville, VA 23442 Contact: Tim Johnson Phone: 757-824-3471 Fax: 757-854-1415

RVAF - Texarkana 5465 Miller County 64 Texarkana, AR 71854 Contact: Dan Crowe Phone: 870-645-2693 Fax: 870-645-2619

Tyson Fresh Meats

800 Stephens Port Drive, DD828D Dakota Dunes, SD 57049 Contact: Bob Bestgen or Kim Broekemeier Phone: 605-235-2523 or 605-235-2836 Fax: 479-757-7595 or 479-757-7547 E-mail: bob.bestgen@tyson.com

or kim.broekemeier@tyson.com

Plant locations

Beef Sites: Amarillo, TX Dakota City, NE Holcomb, KS Joslin, IL Lexington, NE Pasco, WA

Pork Sites: Columbus Junction, IA Denison, IA Madison, NE Perry, IA Storm Lake, IA Logansport, IN Waterloo, IA

Valley Proteins Inc. -**Headquarters**

P.O. Box 3588 Winchester, VA 22604-2586 www.valleyproteins.com Contact: Gerald F. Smith Jr. Phone: 540-877-2590 Fax: 540-877-3210 E-mail: jjsmith@ valleyproteins.com Products: BFP,BM,CM,EX,FGAF, FM,HI,MM,PF,PM,SF,TG,YG, OT(Pet food meat products) Region: Eastern

Valley Proteins Inc. -

Accomac Division 22528 Lankford Highway Accomac, VA 23301 Contact: Reed Parks Phone: 757-302-1343 Fax: 757-302-1346 E-mail: rparks@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Amarillo Division 8415 S.E. 1st Avenue Amarillo, TX 79118-7302 Contact: Steve Heredia Phone: 806-379-6001 Fax: 806-374-1207 E-mail: sheredia@ valleyproteins.com Region: Central

Valley Proteins Inc. -

Baltimore Division 1515 Open Street Baltimore, MD 21226 Contact: Robert Hutson Phone: 410-355-4800 Fax: 410-355-3095 E-mail: rhutson@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Fayetteville Division 1309 Industrial Drive Fayetteville, NC 28301 Contact: Paul White Phone: 910-483-0473 Fax: 910-213-1140 E-mail: pwhite@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Gastonia Division 5533 S. York Road Gastonia, NC 28052 Contact: Mark Cassidy Phone: 704-864-9941 Fax: 704-861-9252 E-mail: mcassidy@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Knoxville Division 9300 Johnson Road Strawberry Plains, TN 37871 Contact: Bobby Watson Phone: 865-933-3481 Fax: 865-932-5713 E-mail: rwatson@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Lewiston Division P.O. Box 10 Lewiston, NC 27849 Contact: Mike Anderson Phone: 252-348-4290 Fax: 252-348-2389 E-mail: manderson@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Linkwood Division 5420 Linkwood Road Linkwood, MD 21835 Contact: Reed Parks Phone: 410-228-1616 Fax: 410-228-9389 E-mail: rparks@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Linville Division 6230 Kratzer Road Linville, VA 22834 Contact: Hobie Halterman Phone: 540-833-6641 Fax: 540-833-6504 E-mail: hhalterman@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Rose Hill Division P.O. Box 1026 469 Yellow Cut Road Rose Hill, NC 28458 Contact: Toby Schlink Phone: 910-289-2083 Fax: 910-289-3312 E-mail: tschlink@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Terre Hill Division 693 Wide Hollow Road East Earl, PA 17519 Contact: John Hamzik Phone: 717-445-6890 Fax: 717-445-6379 E-mail: jhamzik@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Wadesboro Division P.O. Box 718 Wadesboro, NC 28170 Contact: Chris Bivans Phone: 704-694-3701 Fax: 704-694-6145 E-mail: cbivans@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Ward Division 271 Val-Pro Road Ward, SC 29166-9801 Contact: Bill Brochin Phone: 803-685-2590 Fax: 803-685-2591 E-mail: bbrochin@ valleyproteins.com Region: Eastern

Valley Proteins Inc. -

Winchester Division P.O. Box 3588 Winchester, VA 22604 Contact: Robert Golightly Phone: 540-877-2590 Fax: 540-877-3136 E-mail: rgolightly@ valleyproteins.com Region: Eastern

Washington Beef LLC

AB Foods LLC P.O. Box 832 Toppenish, WA 98948 www.abfoodsusa.com Contact: Trey Roberts Phone: 208-338-2500 Fax: 208-338-2650 E-mail: trey.roberts@ agribeef.com Contact: Jesse Castaneda Phone: 509-865-2121 Fax: 509-865-2827 E-mail: jesse.castaneda@ abfoodsusa.com Products: MB,BM,HI,Tallow Region: Western

West Coast Reduction Ltd. - Headquarters

1292 Venables Street
Vancouver, BC, V6A 4B4
Canada
www.wcrl.com
Contact: Gordon Diamond or
Barry Glotman
Phone: 604-255-9301
Fax: 604-255-3434
E-mail: info@wcrl.com

West Coast Reduction Ltd.

Vancouver Plant Operations 105 Commercial Drive North Vancouver, BC, V5L 4V7 Canada Contact: Doug Davidson Phone: 604-255-9301 Fax: 604-255-1803 E-mail: info@wcrl.com Products: EX,FM,PB,SF,TG,BM, ST,FGAF,BLF,HI,RF,YG,PF,BFP, CWG,PM,Fish meal,Porcine meal

West Coast Reduction

Region: Western

Ltd. - Calgary
7030 Ogden Dale Place SE
Calgary, AB, T2C 2A3
Canada
www.wcrl.com
Contact: Geoff Smolkin
Phone: 403-279-4441
Fax: 403-279-6928
E-mail: info@wcrl.com
Products: EX,FM,SF,TG,MB,HI,
DT,BM,ST,FGAF,BLF,RF,YG,Fish
meal

Region: Western

West Coast Reduction

Ltd. - Edmonton 1930 121 Avenue NE Edmonton, AB, T6S 1B1 Canada www.wcrl.com Contact: James Taylor Phone: 780-472-6750 Fax: 780-472-6944 E-mail: info@wcrl.com Products: EX,FM,PB,SF,TG,DT, BM,ST,FGAF,BLF,RF,YG,Fish meal,Porcine meal Region: Western

West Coast Reduction

Ltd. - Saskatoon 3018 Miners Avenue Saskatoon, SK, S7K 4Z8 Canada www.wcrl.com Contact: Bruce Sestak Phone: 306-934-4887 Fax: 306-934-3364 E-mail: info@wcrl.com Products: EX,FM,PB,SF,TG,MB, DT,BM,ST,FGAF,BLF,HI,RF,YG, Fish meal Region: Western

West Coast Rendering Co.

D & D Services Inc.
4105 Bandini Boulevard
Vernon, CA 90058
Contact: Bill Gorman
Phone: 323-261-4176
Fax: 323-261-7185
E-mail: wmgorman@
yahoo.com
Products: EX,YG,MM,DT,HI,PB,BLP
Region: Western

Western Mass. Rendering Co. Inc.

94 Foster Road
Southwick, MA 01077
www.westernmassrendering.com
Contact: David T. Plakias
Phone: 413-569-6265
Fax: 413-569-6512
E-mail: david@wmrco.com
Products: EX,SF,FGAF,DT,TG
Region: Eastern

Active Members by State/Canada Full listing is available on indicated page number.

Alabama	Illinois
American Proteins Inc	Gelita USA
BHT ReSources	Kaluzny Bros. Ir
Cullman Blending28	Mahoney Enviro
Arizona	Mendota Agri-F Smithfield
Baker Commodities Inc24	South Chicago
JBS Packerland Tolleson 26	Tyson Fresh Med
Arkansas	Indiana
Pilgrim's Pride Corp 26	Tyson Fresh Med
Pine Bluff Blending28	lows
Tyson Foods Inc	lowa
Tyson Foods Inc RVAF 28	APC Inc
California	Darling Ingredie Gelita USA
	JBS Swift & Cor
Baker Commodities Inc	KCI Restaurant
Farmer John-Clougherty	Smithfield
Sacramento Rendering Co 27	Tyson Fresh Me
Salinas Tallow Co. LLC	14
West Coast Rendering Co 29	Kansas
Canada	APC Inc Cargill Meat Sc
Cargill Meat Solutions24	National Beef P
Maple Lodge Farms Ltd	Tyson Fresh Med
Rothsay	
Sanimax	Kentucky
West Coast Reduction Ltd 29	Darling Ingredie
	JBS Swift & Cor
Colorado	Terra Renewal
Cargill Meat Solutions24	Tyson Foods Inc
JBS Swift & Company25	Maryland
Delaware	Valley Proteins I
Mountaire Farms27	Massachuse
Florida	Baker Commod
Tallowmasters LLC	Western Mass.
Georgia	Michigan
American Proteins Inc	Kruger Commo
Protein Products Inc	•
	Minnesota
Hawaii	Central Bi-Prod Hormel Foods (
Baker Commodities Inc 24	Tiormer roods (

Illinois	
Gelita USA Kaluzny Bros. Inc	26 27 26 28 28
Indiana Tyson Fresh Meats	
Tyson Fresh Meats	28
Iowa	
APC Inc. Darling Ingredients Gelita USA JBS Swift & Company. KCI Restaurant Services Smithfield Tyson Fresh Meats.	25 25 26 26 27
Kansas	
APC Inc. Cargill Meat Solutions National Beef Packing Tyson Fresh Meats.	24 27
Kentucky	
Darling Ingredients	26
Maryland	
Valley Proteins Inc	29
Massachusetts	
Baker Commodities Inc	24 29
Michigan	<u> </u>
Kruger Commodities Inc	26
Minnesota Central Bi-Products Co24/'. Hormel Foods Corp	25 26

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5 6 7	Tyson Foods Inc RVAF
/ 6 8	Missouri
8 8 8	National Beef Packing Co
8	Nehraska
	Cargill Meat Solutions
8	Nevada Reno Rendering
-	
4 4 7	New York Baker Commodities Inc
8	North Carolina
	North Carolina APC Inc
8	Ohio
9	G.A. Wintzer & Son Co
	Oregon
4 9	Encore Oils LLC
9	Pennsylvania
6	Cargill Regional Beef
- 5	

Mississippi

28	South Carolina Pilgrim's Pride Corp
26	Valley Proteins Inc
	South Dakota
27 27 28	Smithfield
20 28	Tennessee
	Valley Proteins Inc29
24	Texas
25 26 26 26 27 28	Cargill Meat Solutions
27	Valley Proteins Inc
	Utah
24	JBS Swift & Company
	Virginia
24 28 28 29	Mountain View Rendering. 26 Pilgrim's Pride Corp. 26 Smithfield 27/28 Tyson Foods Inc RVAF 28 Valley Proteins Inc. 28/29
25	Washington
25 25	Baker Commodities Inc
25	West Virginia
	Pilgrim's Pride Corp
24	Wisconsin
26 29	JBS Packerland Green Bay 26 Rousselot 25 Sanimax 27 Sonac USA, LLC 25

REGIONAL AREAS OF THE NATIONAL RENDERERS ASSOCIATION

- 1. Eastern Region
- 2. Central Region
- 3. Western Region

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NM OK AR TN NC SC TX LA MS AL GA	

2016 Associate Members

Brokers of fats and proteins, equipment manufacturers, and firms serving the rendering industry

Air/Water Treatment

Aulick Chemical Solutions

P.O. Box 127 Nicholasville, KY 40340 www.aulickchemical.com Contact: Jesse Chula Phone: 859-881-5422 Fax: 859-881-8194 E-mail: jchula@ aulickchemical.com

Products: H2S elimination, odor control, wastewater treatment

Region: Eastern

Chem-Aqua Inc.

NCH Corporation 2727 Chemsearch Boulevard Irving, TX 75062 www.chemaqua.com Contact: Brandon Bischoff Phone: 936-870-5420 E-mail: brandon.bischoff@ chemaqua.com

Products: Water treatment

Region: Central

Clean Water Technology Inc.

151 W. 135th Street Los Angeles, CA 90061 www.cleanwatertech.com Contact: Colette Tassin Phone: 310-380-4648 x114 E-mail: ctassin@ cleanwatertech.com Region: Western

Garratt-Callahan Company

50 Ingold Road Burlingame, CA 94010 www.garrattcallahan.com Contact: Manny Chargualaf Phone: 650-697-581 Fax: 650-692-6098 E-mail: marketing@g-c.com Products: Water treatment Region: Western

Gulf Coast Environmental Systems

1689 Hawthorne Drive Conroe, TX 77301 www.gcesystems.com Contact: Caitlin Parsley Phone: 832-476-9024 E-mail: cparsley@ gcesystems.com Region: Central

Kusters Water

Kusters Zima Corporation P.O. Box 6128 Spartanburg, SC 29304 www.kusterszima.com Contact: Bill Guarini Phone: 864-576-0660 Fax: 864-587-5761 E-mail: bill.guarini@ kusterszima.com Region: Eastern

NCM Odor Control

425 Whitehead Avenue South River, NJ 08882 www.ncmodorcontrol.com Contact: Steve Fleisher Phone: 732-238-6700 Fax: 570-801-7879 E-mail: ncmodorcontrol. steve@gmal.com Region: Eastern

SCP Control Inc.

7791 Elm Street NE P.O. Box 32022 Minneapolis, MN 55432 Contact: Eric Peterson Phone: 763-572-8042 Fax: 763-572-8066 E-mail: info@scpcontrol.com Region: Central, Western

Steen Research LLC

19363 Willamette Drive, Suite 235 West Linn, OR 97068 Contact: Steve Temple Phone: 408-828-8177 or 503-722-9088 Fax: 503-722-1336 E-mail: stemple@ steenresearch.com Region: Western

VanAire Inc.

840 Clark Drive Gladstone, MI 49837 www.vanaireinc.com Contact: Nicole LaPalme Phone: 906-428-2731 Fax: 906-428-9061 E-mail: nlapalme@ vanaireinc.com Region: Eastern

Antioxidants

Ameri-Pac Inc.

P.O. Box 1088 751 S. 4th Street St. Joseph, MO 64502 www.ameri-pac.com Contact: Robert Colescott Phone: 816-233-4530 Fax: 816-233-1702 E-mail: bobc@ameri-pac.com Region: Central

Caldic Canada Inc.

Formerly Nealanders International Inc. 6980 Creditview Road Mississauga, ON, Canada L5N 8E2 www.caldic.com Contact: Kathleen Koe Phone: 905-812-7300 Fax: 905-812-7308 E-mail: kkoe@caldic.ca Region: Central

C.F. Zeiler & Company Inc.

8601 LaSalle Road, Suite 203 Towson, MD 21286 www.cfzeiler.com Contact: Charlie Zeiler Phone: 410-828-7182 Fax: 410-828-7183

E-mail: cf zeiler@cfzeiler.com

Region: Eastern

CFS North America LLC

Camlin Fine Sciences 3179 99th Street Urbandale, IA 50322 www.camlinfs.com Contact: Gregg Griffin Phone: 515-278-1559 E-mail: gregg.griffin@ camlinfs.com Region: Central

FoodSafe Technologies

94 East Jefryn Boulevard, Unit H Deer Park, NY 11729 www.foodsafetech.com Phone: 631-392-1526 Fax: 631-392-1529 E-mail: render@ foodsafetech.com Region: Eastern, Central

Kemin Nutrisurance Inc.

600 East Ct. Avenue Des Moines, IA 50309 www.kemin.com Contact: Chris Gloger or Kevin Custer Phone: 281-615-7924 (Chris) or 515-289-6842 (Kevin) Fax: 979-562-2471 F-mail chris.gloger@kemin.com or kevin.custer@kemin.com Region: Central

Novus International Inc.

20 Research Park Drive St. Charles, MO 63304 Contact: Vanessa Stewart Phone: 314-550-1592 Fax: 314-576-6041 E-mail: vanessa.stewart@ novusint.com Region: Central

Peak Tech Inc.

P.O. Box 7 Jeffersonville, IN 47130 Contact: Jim Sparrow Phone: 812-283-6697 Fax: 812-283-0765 E-mail: jsparrow@pfauoil.com Region: Central

Rensin International Corporation

17901 Von Karman Avenue Irvine, CA 92614 www.rensin-intl.com Contact: Yan Feng Cai Phone: 949-556-8874 Fax: 949-242-4766

E-mail: contact@rensin-intl.com

Region: Eastern

Videka

SPF North America-Diana Group 5300 Highway 25 North Hodges, SC 29653 www.diana-group.com Contact: Jean-Francois Herve Phone: 864-374-3239 Fax: 864-374-3091 E-mail: jfherve@ diana-videka.com Region: Eastern

Bulk Liquid Storage / Transportation

Bulk Transportation

P.O. Box 390 Walnut, CA 91789 www.bulk-dti.com Contact: Gary Cross Phone: 909-594-2855 Fax: 909-595-9983 E-mail: garyc@bulk-dti.com Region: Western

CST Storage

A Division of CST Industries Inc. 345 Harvestore Drive DeKalb, IL 60115 Contact: Tim O'Connell Phone: 815-220-5730 or 405-380-5410 E-mail: toconnell@ cst-storage.com Region: Central

Dura Cast Products Inc.

16160 Hwy 27 Lake Wales, FL 33859 www.duracast.com Contact: Gabe Madlang Phone: 863-638-3200 Fax: 863-638-2443 E-mail: gmadlang@ duracast.com Region: Eastern

Greentree Logistics Inc.

PO Box 247 Kulpsville, PA 19443 www.greentreelogistics.com Contact: Anthony Pellegrino Phone: 215-315-3865 Fax: 866-261-8446 E-mail: apellegrino@ greentreelogistics.com Region: Central

LNL Trucking Inc.

P.O. Box 192 Bedford, IN 47421 www.lnltrucking.com Contact: Larry Limp Phone: 812-278-9410 Fax: 812-278-9810 E-mail: larry.lnl@comcast.net

Region: Eastern

Paul Marcotte Farms Inc.

1725N, 12000 E Road Momence, IL 60954-9467 Contact: Sherrie Smart Phone: 815-472-4400 Fax: 815-472-4453 E-mail: smartdispatcher@ hotmail.com Products: Transporters Region: Central

Stoller Trucking Inc.

P.O. Box 309 Gridley, IL 61744 www.stollertrucking.com Contact: Brian S. Stoller Phone: 309-747-4521 Fax: 309-747-4457 E-mail: bstoller@ stollertrucking.com Region: Central

Chemicals

Anderson Chemical Co.

325 S. Davis
Litchfield, MN 55355
www.accomn.com
Contact: Brett Alsleben
Phone: 320-693-2477
Fax: 320-693-7740
E-mail: bca@accomn.com
Region: Central

Bluestar Silicones

Bluestar Chemical Co. Ltd. 918 Forder Glen Ct. Saint Louis, MO 63129 www.bluestarsilicones.com Contact: Tom Stremlau Phone: 678-477-3366 E-mail: tom.stremlau@bluestarsilicones.com Region: Central

CCI

3540 East 26th Vernon, CA 90058 Phone: 800-767-9112 Region: Western

Chem-Tech Solutions Inc.

427 Brook Street
Belmont, NC 28012
www.chemtechsolutions.com
Contact: Tony Phillips
Phone: 704-829-9202
Fax: 704-829-9203
E-mail: info@
chemtechsolutions.com
Products: Degreasers, cleaners, anti-foam for cookers

Region: Eastern

Cleaning Systems Inc.

Formerly DBA DynaEdge 1997 American Boulevard De Pere, WI 54115 www.cleaningsystemsinc.com Contact: Jake Craanen Phone: 920-337-4400 Fax: 920-337-9410 E-mail: jcraanen@ cleaningsystemsinc.com Products: Degreasers/cleaners Region: Central

Croda Inc. - Atlas Point 315 Cherry Lane New Castle, DE 19720 Contact: Vernon Clark or Stephen McKnight Phone: 770-331-8588 or 732-425-1050 E-mail: c.vernon.clark@croda.com or stephen.mcknight@croda.com Products: Surfactants

DuBois Chemicals

Region: Eastern

3630 East Kemper Road Sharonville, OH 45241 www.duboischemicals.com Contact: Dale Jezwinski or Jeff Carey Phone: 513-504-6036 or 706-599-8222 Fax: 800-543-1720 E-mail: dale.jezwinski@duboischemicals.com or jeff.carey@duboischemicals.com Products: Degreasers/Cleaners for trucks, equipment, walls and floors, truck wash systems Region: Eastern, Central

Hydro Solutions Inc.

P.O. Box 221016 Louisville, KY 40252-1016 Contact: David Davis www.hydrosolutions.com Phone: 502-899-7107 Fax: 502-897-8738 E-mail: hydro@ hydrosolutions.com Region: Eastern

Vantage OleoChemical

4650 South Racine Avenue Chicago, IL 60609-3321 Contact: Joseph Jabczynski Phone: 773-376-9000 Fax: 773-376-1936 E-mail: joseph.jabczynski@

unigema.com

Products: Oleochemicals Region: Central

Commodity Brokers/ Traders

Agri Trading

P.O. Box 609
340 Michigan Street SE
Hutchinson, MN 55350
www.agritradingcorp.com
Contact: Steve Borstad
Phone: 320-587-2133 or
320-583-3209
Fax: 320-587-5816
E-mail: steve.borstad@
agritradingcorp.com
Region: Central

D.A. Lorentzen Inc.

1523 Guthrie Drive Inverness, IL 60010 Contact: Duane Lorentzen Phone: 847-991-5220 Fax: 847-991-5220 E-mail: dalorentzen@ gmail.com Products: TG,FGAF,SF,ET,BR

Products: TG,FGAF,SF,ET,B Region: Central

Decom Inc.

11325 South Hudson Avenue Tulsa, OK 74137 Contact: J.C. Deyoe Phone: 918-298-5205 E-mail: jcdeyoe@aol.com Products: FM,BP,SF,TG,FGAF, MM,MB,DT,BR Region: Central

E.B. Wakeman Company

846 Higuera Street, Suite 5 San Luis Obispo, CA 93401 Contact: Gary Gibson Phone: 805-781-8475 Fax: 805-781-0516 Products: FM,PB,MB,TG,BR Region: Western

Gavilon Ingredients LLC

1331 Capitol Avenue
Omaha, NE 68102-1106
www.gavilon.com
Contact: Aaron Perkinson
Phone: 402-889-4304
Fax: 402-221-0343
E-mail: aaron.perkinson@
gavilon.com
Products: Animal proteins and
fats, grain, feed ingredients,
energy, and biofuels
Region: Central

Gersony Strauss Company Inc.

171 Church Street, Suite 270 Charleston, SC 29401 Contact: Lonnie James Phone: 843-853-7777 Fax: 843-853-6777 E-mail: gersony@gersony.com

Region: Eastern

Hurley Brokerage Inc.

11524 West 183rd Street, Unit 103 Orland Park, IL 60467 Contact: Bill Hurley Phone: 708-361-8823 Fax: 708-361-9649 E-mail: bill.hurley@ hurleybrokerage.com Products: BR,FM,PB,RF,SF,TF,ET,FGAF,MM,MB,DT Region: Central

Mini Bruno North America Inc.

Mini Bruno Sucesores C.A.
41 West Putnam Avenue,
2nd Floor
Greenwich, CT 06830
www.minibruno.us
Contact: Alves Neri
Phone: 203-422-2923
Fax: 203-422-0441
E-mail: aneri@minibruno.com
Region: Eastern

Mirasco Inc.

900 Circle 75 Parkway, Suite 1660 Atlanta, GA 30339 www.mirasco.com Contact: Diaa Ghaly Phone: 770-956-1945 Fax: 770-956-0308 E-mail: diaa.ghaly@ mirasco.com Region: Eastern

Noble America's Energy Solutions LLC

130 Voyage Mall
Marina del Rey, CA 90292
www.noblesolutions.com
Contact: Gene Owens
Phone: 310-686-5702
E-mail: gowens@
noblesolutions.com
Products: Natural gas and
power

Region: Western

Pasternak, Baum & Co. Inc.

500 Mamaroneck Avenue Harrison, NY 10528 www.pasternakbaum.com Contact: Michael Sanchez or Mike Moran Phone: 914-630-8080 Fax: 914-630-8120 E-mail: fatsandoils@ pbaum.net Products: Fats, oils, grains

Region: Eastern

POET Nutrition

POET LLC 4506 N. Lewis Avenue Sioux Falls, SD 57104 www.poet.com Phone: 605-322-2200 E-mail: ashley.hummel@

poet.com

Products: Fats and oils Region: Central

Sunbelt Commodities Inc.

P.O. Box 70006 Marietta, GA 30007-0006 Contact: Dave Haselschwerdt Phone: 770-641-8504 Fax: 844-269-8316 E-mail: dave@ sunbeltcommodities.com Products: BR,TG,ET,FM,PB Region: Central

Third Coast Commodities LLC

1218 W. Glendora Buchanan, MI 49107 Contact: Paul Dickerson Phone: 269-422-1944 Fax: 847-589-0820 E-mail: paul@ thirdcoastcommodities.com Region: Central

Universal Green Consultants

201 Montauk Highway West Hampton Beach, NY 11978

www.ugccorp.org Contact: Jamie O'Brien Phone: 631-998-3700 Fax: 631-288-9012 E-mail: jobrien@ugccorp.org Region: Eastern

Wilbur-Ellis Feed Division

Wilbur-Ellis Company
2001 SE Columbia River Drive
Vancouver, WA 98661
www.wilburellis.com
Contact: Tomas Belloso
Phone: 360-892-2677
Fax: 360-892-4097
E-mail: tbelloso@
wilburellis.com
Region: Western

Wilks & Topper Inc.

567 5th Street
Oakland, CA 94607-3500
Contact: Alex Elsner
Phone: 510-251-6300
Fax: 510-251-6295
E-mail: wilkstoppr@aol.com
Products: FM,PB,TG,ET,FGAF,
MM,MB,BM,FA,OT
Region: Western

W.W.S. Inc.

4032 Shoreline Drive, Suite 2 Spring Park, MN 55384 www.wwstrading.com Contact: Wendy Weihe Storlie Phone: 952-541-9001 or 888-645-6328 Fax: 952-541-9206 E-mail: wendy@ wwstrading.com Products: Commodity merchandiser of fats, oils, and proteins Region: Central, Eastern, Western

Consultants

Bolton & Menk Inc.

P.O. Box 668
Ames, IA 50010-0668
www.bolton-menk.com
Contact: Greg Sindt
Phone: 515-233-6100
Fax: 515-233-4430
E-mail: gregsi@
bolton-menk.com
Products: Environmental
engineering and permit
services, wastewater treatment
facility design and studies
Region: Central

Energy Management Resources Inc.

7501 Tiffany Springs Parkway Kansas City, MO 64153 www.emr-energy.com Contact: Ginger Needham Phone: 816-883-1000 Fax: 816-883-1001 E-mail: slawrence@ emr-energy.com Region: Central

GHD Services Inc.

7086 N. Maple Avenue, Suite 101 Fresno, CA 93720 www.ghd.com Contact: Michael Beerends or Jason Haelzle Phone: 559-326-5900 Fax: 559-326-5905 E-mail: michael.beerends@ qhd.com or

jason.haelzle@ghd.com Region: Western

National Grease Recycling Inc.

2708 Charlie Taylor Road Plant City, FL 33565 E-mail: nationalgrease@aol.com Region: Eastern

Reid Engineering Company Inc.

1210 Princess Anne Street Fredericksburg, VA 22401 www.reidengineering.com Contact: Shane H. Reid Phone: 540-371-8500 Fax: 540-371-8576 E-mail: sreid@ reidengineering.com Products: Wastewater, water, utility, and site development Region: Eastern

SCEC Air Quality Specialists

1582-1 N. Batavia Street Orange, CA 92867 www.scec.com Contact: Karl Lany Phone: 714-282-8240 Fax: 714-282-8247

E-mail: klany@scec.com Products: Permitting, compliance management, emissions testing Region: Western

Equipment

AC Corporation

P.O. Box 16367 Greensboro, NC 27416-0367 Contact: Trip Walker www.accorporation.com Phone: 336-273-4472 Fax: 336-274-6035 E-mail: twalker@ accorporation.com Region: Eastern

Alfa Laval Inc.

111 Parker Street
Newburyport, MA 01970
www.alfalaval.com
Contact: Jeff Logan
Phone: 978-853-8218
E-mail: jeff.logan@alfalaval.com
Region: Eastern

Alloy Hardfacing & Eng. Co. Inc.

20425 Johnson Memorial Dr. (Hwy 169)
Jordan, MN 55352
www.alloyhardfacing.com
Contact: Paul Rothenberger
Phone: 800-328-8408 or
952-492-5569
Fax: 952-492-3100
E-mail: paulr@
alloyhardfacing.net
Region: Central, Western

Anco-Eaglin Inc.

1420 Lorraine Avenue High Point, NC 27263-2040 www.ancoeaglin.com Contact: Rick Eaglin Phone: 336-855-7800 Fax: 336-855-7831 E-mail: ancoeaglin@aol.com Region: Western

Artex Manufacturing

P.O. Box 88

Redwood Falls, MN 56283 www.artexmfg.com Contact: Mark Schwiderski Phone: 507-644-2893 Fax: 507-644-7000 E-mail: mschwiderski@ artexmfg.com Products: Aluminum rendering trailers, air/water treatment Region: Central

Brown Industrial Inc.

311 W. South Street P.O. Box 74 Botkins, OH 45306-0074 www.brownindustrial.com Contact: Craig D. Brown Phone: 937-693-3838 Fax: 937-693-4121 E-mail: craig@ brownindustrial.com Products: Truck bodies/trailers Region: Central, Eastern, Western

Cablevey Conveyors

Intraco Inc.
P.O. Box 148
Oskaloosa, IA 52577
www.cablevey.com
Contact: Karl Seidel
Phone: 641-673-8451
Fax: 641-673-7419
E-mail: Karl.Seidel@
cablevey.com
Region: Central

Chinrose International

P.O. Box 548
Cornelius, OR 97113
www.chinrose.com
Contact: Elizabeth Rose
Phone: 503-357-7553
Fax: 503-357-5522
E-mail: elizabeth@
chinrose.com
Products: Locks and security
hardware
Region: Western

Clapper Corporation

P.O. Box 257
Ankeny, IA 50021
www.clappercorp.com
Contact: Theodore Clapper
Phone: 515-964-1110
Fax: 515-964-0863
E-mail: tclapper@
clappercorp.com
Products: Repair and sales
Region: Central, Western

Consolidated Fabricators

14620 Arminta Street Van Nuys, CA 91402 www.con-fab.com Contact: Kerry Holmes Phone: 818-933-0885 E-mail: kholmes@con-fab.com Products: Waste containers Region: Western

DGA & Associates

9419 Toledo Avenue So. Bloomington, MN 55437 Contact: Duane G. Anderson Phone: 952-881-4088 Fax: 952-881-2703 E-mail: dgaassociates@qwest.net

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Region: Central

Dupps Company
P.O. Box 189
Germantown, OH 45327
www.dupps.com
Contact: Frank Dupps Jr. or
Richard Weeks
Phone: 937-855-6555
Fax: 937-855-6554
E-mail: info@dupps.com
Region: Central, Eastern,
Western

Frontline International Inc.

95 16th Street, SW
Barberton, OH 44203
www.frontlineii.com
Contact: John Palazzo
Phone: 330-861-1100
Fax: 330-861-1105
E-mail: jpalazzo@
frontlineii.com
Products: Used cooking oil automated system (equipment only)
Region: Eastern

Gainesville Welding & Rendering Equipment

37 Henry Grady Highway
Dawsonville, GA 30534-9802
www.gwrendering.com
Contact: Terry Stephens
Phone: 706-216-2666
Fax: 706-216-4282
E-mail: gwrenderingequipment@
windstream.net
Region: Eastern

Genesis III Inc.

P.O. Box 186 5575 Lyndon Road Prophetstown, IL 61277 www.g3hammers.com Contact: Jonathan Paul Phone: 815-537-7900 or 866-376-7900 Fax: 815-537-7905 E-mail: jonathan.paul@ g3hammers.com Products: Hammermills and parts

Region: Central

Haarslev Inc.

9700 NW Conant Avenue Kansas City, MO 64153 www.haarslev.com Contact: Hans H. Nissen Phone: 816-799-0808 Fax: 816-799-0812 E-mail: info-usa@haarslev.com Region: Central, Western

Industrial Filter & Pump Mfg. Company

P.O. Box 1079
Mims, FL 32754
www.industrialfilter.com
Contact: Tim Indoe
Phone: 708-656-7800
Fax: 708-656-7806
E-mail: tim@industrialfilter.com
Products: Pressure leaf filters
Region: Central

Industrial Hardfacing Inc.

218 E. Main Street Lamoni, IA 50140 www.industrialhardfacing.com Contact: Chip Millslagle Phone: 800-247-7778 Fax: 641-784-6923 E-mail: sales@industhard.com Region: Central

Industrial Steam

1403 SW 7th Street
Atlantic, IA 50022
www.industrialsteam.com
Contact: Jeremy Zellmer
Phone: 712-243-5300
E-mail: jzellmer@
industrialsteam.com
Products: Deaerators, firetube
boilers, and high pressure
condensate systems
Region: Central

Leem Filtration

25 Arrow Road Ramsey, NJ 07446 www.leemfiltration.com Contact: Bill Boyd Phone: 813-653-9006 Fax: 813-685-3382 Products: Filtration equipment Region: Eastern

Lock America International Inc.

9168 Stellar Court Corona, CA 92883 www.laigroup.com Contact: Watson Visuwan Phone: 800-422-2866 Fax: 888-422-2866 E-mail: sales@laigroup.com Products: Security locks and hardware Region: Western

Lyco Manufacturing Inc.

115 Commercial Drive P.O. Box 31 Columbus, WI 53925 www.lycomfg.com Contact: Kevin Hansen Phone: 920-623-4152 Fax: 920-623-3780 E-mail: kevin.hansen@ lycomfg.com Products: Rotary screens Region: Central

MAC Trailer Mfg.

14599 Commerce Street Alliance, OH 44601 www.mactrailer.com Contact: Joe Dennis Phone: 330-823-9900 Fax: 330-823-0232 Region: Eastern

Martin Sprocket & Gear

3600 McCart Street
Ft. Worth, TX 76110
www.martinsprocket.com
Contact: Kirk Trimble
Phone: 817-258-3000
Fax: 817-258-3173
E-mail: ktrimble@
martinsprocket.com
Products: Bulk material
handling and mechanical
power transmission equipment
Region: Central

Martin Sprocket & Gear Canada Inc.

3200 Darrell Drive
Ayr, ON, NOB 1E0
Canada
Contact: David Thompson
Phone: 519-621-0546
Fax: 519-621-4413
E-mail: dthompson@
martinsprocket.com
Region: Central

MMI Tank and Industrial Services

3240 S. 37th Avenue
Phoenix, AZ 85009-9700
www.mmitank.com
Contact: Jeremy Fuller
Phone: 602-272-6000
Fax: 602-272-6700
E-mail: jeremy@mmitank.com
Products: Manufacture/Install
carbon steel/stainless steel
tanks, repair/replace cooker
shafts, screw conveyors/presses,
dryers, grinders, boilers, etc.
Region: Western

Olson Manufacturing/ V-Ram

P.O. Box 289, 620 S. Broadway Albert Lea, MN 56007 www.vram.com Contact: Jeff Hall Phone: 507-373-3996 Fax: 507-373-5937 E-mail: jeff@vram.com Region: Central

Olymspan US Branch

Changzhou Olymspan Thermal Energy Equipment Co. Ltd. 659 E. 1250 S
Providence, UT 84332
www.olymspan.com
Contact: Tina Feng
Phone: 970-430-1289
E-mail: tina.feng@
olymspan.com
Products: Boilers, pressure
vessels, horizontal production
center, rolling machines
Region: Western

Onkens Inc.

P.O. Box 72 320 E. Main Easton, IL 62633 www.onkens.net Contact: David Hull Phone: 309-562-7271 Fax: 309-562-7272 E-mail: dhull@onkens.net Products: Truck bodies, trailers, and bulk grease containers Region: Central, Eastern, Western

Orthman Conveying Systems

P.O. Box B Lexington, NE 68850 www.orthman.com Contact: Doug Hampton Phone: 308-324-4654 Fax: 308-324-7549 E-mail: dhampton@ orthman.com Region: Central

Par-Kan Company

2915 W 900 S Silver Lake, IN 46982 www.par-kan.com Contact: Kyle Bruner Phone: 260-352-2141 Fax: 260-352-0701

E-mail: kbruner@par-kan.com Products: Grease containers/lids Region: Central

R&D Equipment Sales Co.

4760 Freeman Drive
Fort Worth, TX 76140
www.rdequipmentco.com
Contact: Ralph Romero
Phone: 817-563-2571
Fax: 817-563-2519
E-mail: ralph@
rdequipmentco.com
Region: Central

Roll Rite LLC

650 Industrial Drive Gladwin, MI 48624 www.rollrite.com Contact: James Kenyon Phone: 989-896-1111 Fax: 989-345-7805 E-mail: jamesk@rollrite.com Products: Automated tarp system for trucking industry Region: Central

RW Manufacturing

P.O. Box 599
Stuttgart, AR 72026
www.rwmfginc.com
Contact: Shane Sweetin or
Randy Sweetin
Phone: 870-673-7226
Fax: 870-673-6131
E-mail:
ssweetin@rwmfginc.com or
rsweetin@rwmfginc.com
Products: Replacement parts

Region: Central, Western Saeplast Americas Inc.

for hammer mills and shakers

100 Industrial Drive
Saint John, NB, E2R 1A5
Canada
www.saeplast.com
Contact: Mike Kilpatrick
Phone: 506-633-0101
Fax: 506-658-0227
E-mail: mike.kilpatrick@
promens.com
Products: Plastic containers
Region: Eastern

34 April 2016 **Render** NRA Membership Directory www.nationalrenderers.org

Scan American Corp.

9505 N. Congress Avenue Kansas City, MO 64153 www.scanamcorp.com Contact: Barry Griffith Phone: 816-880-9321 Fax: 816-880-9343 E-mail: bgriffith@ scanamcorp.com Products: Pumps, cookers, presses, driers, grinders, coagulators, crushers, mixers, thermal oxidizers, humidifiers Region: Central

Seepex Inc.

Seeberger Gmbh 511 Speedway Drive Enon, OH 45323 www.seepex.com Contact: Aaron Renick Phone: 937-864-7150 Fax: 937-864-7157 E-mail: arenick@seepex.net Products: Aseptic designs for food processing Region: Eastern

Sturtevant Inc.

348 Circuit Street Hanover, MA 02339 www.sturtevantinc.com Contact: Steve Marshall Phone: 781-829-6501 Products: Air classifier separator for poultry meal Region: Eastern

Summit Trailer Sales Inc.

One Summit Plaza Summit Station, PA 17979 www.summittrailer.com Contact: Chuck Pishock Phone: 570-754-3511 Fax: 570-754-7025 E-mail: chuck@ summittrailer.com Region: Eastern

Superior Process Technologies

1915 Broadway Street NE Minneapolis, MN 55413 www.superiorprocesstech.com Contact: Doug Smith Phone: 612-378-0800 Fax: 702-975-5758 Products: Biodiesel production

Region: Central

Titus Inc. 9887 6 B Road Plymouth, IN 46563 www.titusinc.com Contact: Tom Read Phone: 574-936-3345 Fax: 574-936-3905 E-mail: tread@titusinc.com Products: Titus II grinder Region: Central, Eastern

Travis Body and Trailer Inc.

13955 FM 529 Houston, TX 77041 www.travistrailers.com Contact: C.K. (Bud) Hughes Phone: 713-466-5888 or 800-535-4372 Fax: 713-466-3238 E-mail: info@travistrailers.com Products: Trailer manufacturer Region: Central

Uzelac Industries Inc.

6901 Industrial Loop Greendale, WI 53129 www.uzelacind.com Contact: Michael Uzelac Phone: 414-529-0240 Fax: 414-529-0362 E-mail: mike@uzelacind.com Products: Duske drying systems Region: Central

Virginia Truck Center

P.O. Box 96 Weyers Cave, VA 24486 www.virginiatruckcenter.com Contact: Greg Witt Phone: 540-453-1003 Fax: 540-234-0997 E-mail: gwitt@ virginiatruckcenter.com Region: Eastern

Walinga USA Inc. 1190 Electric Avenue

Wayland, MI 49348 www.walinga.com Contact: Terry Medemblik Phone: 800-466-1197 Fax: 616-877-3474 E-mail: tjm@walinga.com Products: Collection vehicles

Region: Eastern

Equipment - Centrifuges

Centrifuge Chicago Corporation

1721 Summer Street Hammond, IN 46320 www.centrifugechicago.com Contact: Doug Rivich Phone: 219-852-5200 Fax: 219-852-5204 E-mail: doug@ centrifugechicago.com Products: Repair, parts, service Region: Central

Centrisys Corporation

9586 58th Place Kenosha, WI 53144 www.centrisvs.us Contact: Michele Whitfield Phone: 262-654-6006 Fax: 262-764-8705 E-mail: info@centrisys.us Region: Western

GEA Westfalia Separator

100 Fairway Court Northvale, NJ 07647 www.wsus.com Contact: Rawn Walley Phone: 201-767-3900 Fax: 201-767-3416 E-mail: info.wsus@ geagroup.com Region: Eastern

GTech

2511 N. Frazier Street Conroe, TX 77305 www.gtechus.com Contact: Dennis Edwards Phone: 281-290-9229 Fax: 936-494-0012 E-mail: dennis.edwards@ atechus.com Region: Central

Industrial Process Equipment

Centrifugal Services LLC 312 C Street St. Albans, WV 25177 Contact: Chad Dillon Phone: 304-727-6652 Fax: 304-201-4395 E-mail: chad.dillon@ elginindustries.com Region: Eastern

Jenkins Centrifuge **Company LLC**

1123 Swift Street North Kansas City, MO 64116 www.jenkinscentrifuge.com Contact: Kevin Jenkins or Cam Kirkpatrick Phone: 800-635-1431 Fax: 816-471-6692 E-mail: kjenkins@ jenkinscentrifuge.com or ckirkpatrick@jenkinscentrifuge.com Products: Rebuild centrifuges, buy and sell equipment, manufacture horizontal centrifuges Region: Central, Eastern, Western

Kayden Industries LP 3348 58th Avenue SE Calgary, AB, T2C 0B3 Canada www.kaydenindustries.com Contact: Mark Oscienny Phone: 403-571-6688 Fax: 403-264-5901 E-mail: moscienny@ kaydenindustries.com Region: Eastern

Separators Inc.

5707 W. Minnesota Street Indianapolis, IN 46241 www.separatorsinc.com Contact: Bill Otter Phone: 317-484-3745 Fax: 317-484-3755

E-mail: separate@sepinc.com Region: Central, Eastern

Equipment - Repair

Cen-Tex Centrifuge Services LLC

16505 I-45 South Willis, TX 77318 www.cen-tex.net Contact: Hillary Roberts Phone: 936-344-2052 Fax: 936-344-2152 Region: Central

MDH Boiler Service & Repair Inc.

12106 S. Center Street South Gate, CA 90280 Contact: Mauro Donate Phone: 562-630-2875 Fax: 562-630-2595 E-mail: mdonate@ mdhboiler.com Region: Western

Rendeq Inc.

1813 Frank S. Holt Drive Burlington, NC 27215 www.rendeq.com Contact: Mark DeWeese Phone: 336-226-1100 Fax: 336-270-5357 E-mail: info@rendeq.com Region: Eastern

Exporters

Fornazor International Inc.

455 Hillsdale Avenue Hillsdale, NJ 07642 www.fornazor.com Contact: John Fornazor Phone: 201-664-4000 Fax: 201-664-3222 E-mail: john@fornazor.com Region: Eastern

International Feed

P.O. Box 280 2075 Daniels Street Long Lake, MN 55356 www.internationalfeed.com Contact: Derek Michalski or Bernie Kaiser Phone: 952-249-9818 E-mail: dmichalski@ internationalfeed.com or berniek@internationalfeed.com Products: Supplier/Exporter of animal protein meals Region: Central

Wellens & Co. Inc.

P.O. Box 24627 Minneapolis, MN 55424-0627 Contact: LeRoy Wellens Phone: 952-925-4600 Fax: 952-925-0031 E-mail: wellens.company@ earthlink.net Products: FM,PB,SF,TG,FGAF,

MM,MB,DT,YG Region: Central

Feed Manufacturers/ **Ingredients**

Boyer Valley Company

LGĪ Company 2425 S.E. Oak Tree Court Ankeny, IA 50021 www.bovervallev.com Contact: Steve Lankford Phone: 515-289-7666 Fax: 515-289-4369 E-mail: steve.lankford@ boyervalley.com Products: PBM,BM,FM,YG Region: Central

Feed Energy Company

4400 E. University Ave Pleasant Hill, IA 50327 www.feedenergy.com Contact: Clayton Vaughan Phone: 800-451-9413 Fax: 515-265-4163 E-mail: sales@feedenergy.com Products: BLF,FA,FGAF,RF,SF Region: Central

International Ingredient Corporation

150 Larkin Williams Industrial Court Fenton, MO 63026 www.iicag.com Contact: Kevin M. Halpin Phone: 636-343-4111 Fax: 636-349-4845 E-mail: khalpin@iicag.com Products: Specialty ingredients Region: Central

International Nutrition

P.O. Box 27540 Omaha, NE 68127 www.ini-agworld.com Contact: Steve Silver Phone: 402-331-0123 Fax: 402-331-0169 E-mail: info@ini-agworld.com Region: Central

Mid-South Milling Company

710 Öakleaf Office Lane Memphis, TN 38117 www.msmilling.com Contact: Nathan Pappas Phone: 901-681-4301 Fax: 901-681-4337 E-mail: npappas@ msmilling.com Region: Eastern, Central

Nutra-Flo Protein Products

202 North Derby Lane North Sioux City, IA 57049 www.nfprotein.com Contact: Eric J. Lohry Phone: 712-279-1938 Fax: 712-279-1973 Products: Animal protein producer Region: Central

Nutrient Concepts Inc.

500 Cathedral, Suite 2325 Aptos, CA 95001 Contact: Jerry Ball Phone: 209-481-3943 Fax: 888-761-8927 E-mail: ball.jerry@ sbcglobal.net Region: Western

Packers By-Products Inc.

P.O. Box 66 National Stockyards, IL 62071 Contact: Max Schaefer Phone: 618-271-0660 E-mail: chaefer@sbcglobal.net Products: Manufacturer and distributor of animal proteins Region: Central

Papillon Agriculture Company

30 N. Harrison Street, Suite 204 Easton, MD 21601 www.papillon-ag.com Contact: Brenda Roop Phone: 401-820-7400 E-mail: brenda@ papillon-ag.com Products: Bypass protein products for dairy industry. Region: Eastern

P&G Pet Care

Procter and Gamble 8700 Mason-Montgomery Road Mason, OH 45040 www.iams.com Contact: Greg Daniel Phone: 513-622-0774 Fax: 513-945-2798 E-mail: daniel.gd.2@pg.com Products: Dog/Cat food Region: Eastern

Premier Ag Resources Ltd.

747 Hyde Park Road, Suite 205 London, ON, Canada N6H 3S3 www.parltd.ca Contact: Paul Primeau Phone: 519-657-1177 E-mail: pprimeau@parltd.ca Region: Eastern

The Peterson Company 6312 W. Main Kalamazoo, MI 49009 www.thepetersoncompany.com Contact: Leigh Ann Sayen Phone: 269-350-2900 E-mail: leighanns@ thepetersoncompany.com Region: Eastern

Financial/ **Professional Services**

Marsh

Marsh McLennan Companies 777 South Figueroa Street Los Angeles, CA 90017 www.marsh.com Contact: Richard B. Cook Phone: 213-346-5323 Fax: 213-346-5928 E-mail: dick.cook@marsh.com

Williams Mullen

Region: Western

1441 Main Street, Suite 1250 Columbia, SC 29201 www.williamsmullen.com Contact: Ethan Ware Phone: 803-567-4610 E-mail: eware@williamsmullen.com Products: Law firm Region: Eastern

Laboratory/Testing

Crystal Laboratory

242 Hwy 60 E, Suite 2 P.O. Box 829 Lake Crystal, MN 56055 Contact: Steve Marsh Phone: 507-726-2387 Fax: 507-726-2388

E-mail: smarsh@prarie.lakes.com

Region: Central

Diversified Laboratories Inc.

4150 Lafayette Center Drive, Suite 600 Chantilly, VA 20151 www.diversifiedlaboratories.com Contact: Peter Kendrick Phone: 703-222-8700 Fax: 703-222-0786 E-mail: pkendrick@ diversifiedlaboratories.com Region: Eastern

Eurofins Scientific Inc.

2200 Rittenhouse Street, Suite 150 Des Moines, IA 50321 www.eurofinsus.com Contact: Lars Reimann Phone: 901-301-8425 E-mail: larsreimann@ eurofinsus.com 2315 N. Causeway Boulevard, Suite 150 Metairie, LA 70001 www.eurofinsus.com Contact: Christine McIntosh Phone: 504-297-3400 E-mail: christinemcintosh@ eurofinsus.com Region: Central

FOSS North America

8091 Wallace Road Eden Prairie, MN 55344 www.foss.us Contact: Tim Welby Phone: 800-547-6275 Fax: 952-974-9823 E-mail: twelby@fossna.com Region: Central

NP Analytical Laboratories

Checkerboard Square St. Louis, MO 63164 www.npal.com Contact: Judy O'Brien Phone: 314-982-2193 Fax: 314-982-1078 E-mail: jobrien@purina.com Region: Central

Thionville Laboratories Inc.

Thionville Surveying Co. Inc. 5440 Pepsi Street New Orleans, LA 70123 Contact: Paul Thionville Phone: 504-733-9603 Fax: 504-733-6457 E-mail: operations@ thionvillenola.com Region: Central

Whitbeck Laboratories Inc.

1000 Backus Avenue Springdale, AR 72764 www.whitbecklabs.com Phone: 800-874-8195 E-mail: info@ whitbecklabs.com Region: Central

Samplers and Surveyors

Cullen Maritime Services Inc.

465 46th Street Richmond, CA 94805-2301 Contact: John Spenik Phone: 510-232-6700 Fax: 510-232-6766 E-mail: cmssfo@pacbell.net 2126 E. 7th Street Long Beach, CA 90804 Contact: John Spenik Phone: 562-433-4355 Fax: 562-433-3457 E-mail: john.spenik@ cullenmaritime.com 9317 232nd Street SW Edmonds, WA 98020-5026 Contact: Craig Burgess Phone: 206-783-6979 Fax: 206-783-6913 Region: Western

Trade Groups/Journals

American Feed Industry **Association**

2101 Wilson Boulevard, Suite 916 Arlington, VA 22201 www.afia.org Contact: Joel G. Newman

Phone: 703-524-0810 Fax: 703-524-1921 E-mail: jnewman@afia.org

www.nationalrenderers.org

Region: Eastern

Pet Food Institute

2025 M Street NW, Suite 800 Washington, DC 20036 www.petfoodinstitute.org Phone: 202-367-1120 Fax: 202-367-2120 Region: Eastern

Poultry Protein and Fat Council

1530 Cooledge Road Tucker, GA 30084 www.uspoultry.org/ppfc_index.cfm Contact: Rafael Rivera Phone: 678-514-1978 Fax: 770-493-9257 E-mail: rrivera@uspoultry.org Region: Eastern

Western United Dairymen

1017 L Street, Suite 582 Sacramento, CA 95814 www.westernuniteddairymen.com Contact: Gary Conover Phone: 916-492-0892 Fax: 916-492-1645 E-mail: gary@garyconover.com

Products: California dairy milk producer/trade organization

Region: Western

Other

ALG Labels & Graphics

3005 4th Avenue South Birmingham, AL 35233 www.alggraphics.com Contact: Wilson Pirtle Phone: 205-313-5135 Fax: 205-328-0123 E-mail: wpirtle@ algaraphics.com Region: Eastern

Arreff Terminals Inc.

Fornazor International Inc. 3600 Elm Avenue Portsmith, VA 23704 Contact: Noel Smith Phone: 757-393-2730 Fax: 757-393-2899 Products: Bulk transloading/ bagging Region: Eastern

BIS Computer Solutions Inc. 2428 Foothill Boulevard La Crescenta, CA 91214 Contact: Veronika Pitross Phone: 818-248-5023 Fax: 818-249-1169 E-mail: veronikap@ biscomputer.com Products: Software design Region: Western

Bruker Optics

19 Fortune Drive Billerica, MA 01821 www.brukeroptics.com Contact: Nancy Wright-Ross Phone: 978-439-9899 Region: Eastern

Caito Fisheries Inc.

P.O. Box 2415 San Francisco, CA 94126 Contact: Jeanette Caito Phone: 415-441-2121 Fax: 415-441-2221 E-mail: caitosf@mcn.org Products: Seafood processor Region: Western

Center for Toxicology and **Environmental Health LLC**

5120 North Shore Drive North Little Rock, AR 72118 www.cteh.com Phone: 501-801-8500 Fax: 501-801-8501 Region: Central

CenterPoint Energy Services Inc. 525 Milam, Room 1440

Shreveport, LA 71101 1111 Louisiana Houston, TX 77002 www.centerpointenergy.com/ces Contact: Jeff Wiese Phone: 318-429-3059 Fax: 318-429-2600 E-mail: jeff.wiese@ centerpointenergy.com Products: Energy/Natural gas Region: Central

Chemol Company Inc.

P.O. Box 16286 Greensboro, NC 27416 www.chemol.com Contact: Fred Wellons Phone: 336-333-3050 E-mail: fred@chemol.com Products: Bio-based and bio-renewable chemicals from animal fats and vegetable oils Region: Eastern

Countryside Hides Inc.

Boston Hides and Furs 10261 Twin Angela Lane Alma Center, WI 54611 Contact: Sidney Erickson Phone: 715-964-5021 Fax: 715-964-5023 E-mail: cowboycountryside@ amail.com Products: Dead stock removal, pet food, hides Region: Central

FaegreBD Consulting

1050 K Street NW, Suite 400 Washington, DC 20001 www.faegrebdc.com Contact: Andy Ehrlich Phone: 202-312-7400 Fax: 202-312-7461 E-mail: andy.ehrlich@ faegrebd.com Products: Legal Counsel Region: Eastern

Farmland Foods

P.O. Box 20121, Dept. 122 Kansas City, MO 64195 www.farmlandfoods.com Contact: Robert Eastep Phone: 816-713-7878 Fax: 816-713-7700 E-mail: rleastep@farmland.com Products: Beef/pork packers Region: Central

High Performance Systems Corp.

107-3 Cramer Ave Dunellen, NJ 08812 www.highperfsystems.com Contact: Jeffrey Smedley Phone: 908-377-4111 Fax: 908-279-7021 E-mail: highperfsystems@ yahoo.com Region: Eastern

Jacob Stern & Sons Inc.

2104 75th Street Houston, TX 77011 Contact: Jay Van Valen or Jeffrey Peeler Phone: 713-926-8386 Fax: 713-926-8128 E-mail: jvanvalen@ tx.jacobstern.com or jeffp@tx.jacobstern.com Products: Tallow Region: Central

Jacobsen Publishing

1123 W. Washington Boulevard, Floor 3 Chicago, IL 60607 www.thejacobsen.com Contact: Ryan Standard Phone: 312-726-6600 Fax: 312-726-6654 E-mail: ryan@ thejacobsen.com Region: Central

Kappa Products Corp.

1301 E. 99th Street Chicago, IL 60628-1697 Contact: Paul Stern Phone: 773-374-0600 Fax: 773-374-5625 Products: Animal and vegetable oils producers Region: Central

Olymel S.E.C.

2200 Avenue Pratte Bureau 400 St-Hyacinthe, QB, J2S 4B6 Canada www.olymel.ca Phone: 450-771-0400 Fax: 450-771-4872 E-mail: ClaudeBourgault@ olymel.com Products: Meat processor Region: Eastern

Renewable Energy Group

416 S. Bell Avenue P.O. Box 888 Ames, IA 50010 www.regfuel.com Contact: Dave Elsenbast Phone: 515-239-8117 E-mail: dave.elsenbast@ regi.com Products: Biodiesel production, feedstock procurement, marketing

Southwest Hide Co.

Region: Central

9207 W. Blackeagle Drive Boise, ID 83709 www.southwesthide.com Contact: John Rueb Phone: 208-378-8000 Fax: 208-377-9069 E-mail: jr@southwesthide.com Products: DL,EX,HI Region: Central, Western

Stolt-Nielsen USA Inc.

Stolt Tankers B.V. 800 Connecticut Avenue, 4th Floor East Norwalk, CT 06856 www.stolt-nielsen.com Contact: Gary Kolachovsky Phone: 203-838-7100 Fax: 203-299-0067 Region: Eastern

Sustainable Sourcing LLC

19633 LaGrange Road Mokena, IL 60448 www.sustainablesourcingllc.com Contact: David Ciarlette Phone: 815-714-8055 Fax: 812-645-1830 E-mail: rosanne.crockett@ sustainablesourcingllc.com Products: Sustenance (food) for probiotic (animal) processes Region: Central

Universal Maintenance Inc.

P.O. Box 104 Murrayville, GA 30564 www.universalmaintenance.com Contact: Jessica Colbert Phone: 706-297-0087 Fax: 706-297-0088 E-mail: jessica@bellsouth.net Products: General contractor Region: Eastern

Val-U-Meat Pkg

2107 So. Milliken Ontario, CA 91761 Contact: Steve Stiles Phone: 909-390-9828 Fax: 909-390-9833 E-mail: stevestiles@ dslextreme.com

Products: Dead stock removal

- dairy

Region: Western

Validus

IMI Global
P.O. Box 14586
Des Moines, IA 50306
www.validusservices.com
Contact: Dr. David J. Meisinger
Phone: 515-278-8002
Fax: 515-278-8011
E-mail: meisingerd@

validusservices.com Products: Professional services

Region: Central

Wells Fargo Food and Agribusiness

7000 Central Parkway, Suite 580 Atlanta, GA 30328 www.wellsfargo.com Contact: Jim Nutt Phone: 770-551-4678 Fax: 770-551-5139 E-mail: james.h.nutt@ wellsfargo.com Region: Eastern

Worcester Industrial Products

7 Brookfield Street Worcester, MA 01605 www.shortening-shuttle.com Contact: Martha Hawley Phone: 800-533-5711 Fax: 508-831-9990

E-mail: mhawley@shortening-

shuttle.com

Products: Grease transport

Region: Eastern

Associate Members by Alphabetical

Full listing is available on indicated page number.

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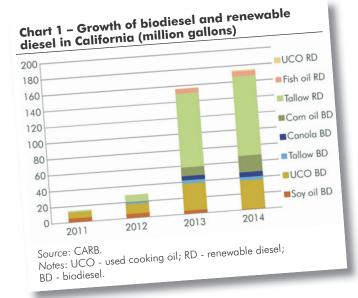
Policy Matters to California Biodiesel

By Tina Caparella

California biodiesel producers are joining other renewable fuel industries and working with state agencies to ensure future government policies help grow renewable fuel production in the state. Attendees at the California Biodiesel Alliance's annual conference held in late February in Sacramento heard from a number of presenters that state policy continues to be fine-tuned to ensure increased use of low-carbon renewable fuels to help with climate change.

"Biofuels are a critical piece – the largest piece – of the governor's goals of reducing greenhouse gases," stated Cliff Rechtschaffen, senior advisor to Governor Jerry Brown. "Biodiesel achieves many of our goals to displace fossil fuels." California lawmakers have already put in place ambitious goals of reducing the state's greenhouse gas emissions to 40 percent below 1990 levels by 2030 and transportation fuels are a large part of that plan. Renewable fuels like biodiesel and renewable diesel will help meet that target with fuels produced from feedstocks that receive the lowest carbon intensity rating, such as used cooking oil and animal fats, being preferred by all.

However, Rechtschaffen pointed out that California producers provide less than 20 percent of the state's low-carbon fuels, with the majority being imported into the state. Although he noted that California will not be providing economic subsidies like other states have, mentioning lowa specifically, the California Air Resources Board (CARB) is proposing \$40 million in grants for new low-carbon fuels produced in the state using in-state feedstock. In addition, the California Energy Commission is proposing \$25 million in grants for expansion of existing facilities or construction of new biofuels plants in the state. Both expenditures under California's cap and trade program need legislative approval so Rechtschaffen encouraged the biodiesel industry to make a strong business case for why the government needs to spend this, or more, money.

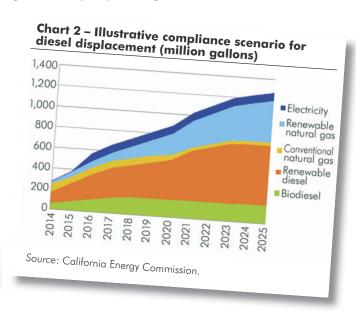


"You have a very good story to tell," he commented. "Focus on in-state production is critical." Rechtschaffen admitted the governor's office thought there would be more biofuels and cellulosic production in the state by now. Several attendees, including a user of biodiesel, remarked that infrastructure for renewable fuels usage is lacking and financial incentives from the state are slow to come.

Floyd Vergara, of CARB's industrial strategies division, explained that it will take many policies working in conjunction to meet the governor's goal by 2030 and beyond. He noted that the state's Low Carbon Fuel Standard (LCFS) program is working, creating an increase in local carbon fuel usage that will continue over time. In 2014, biodiesel and renewable diesel accounted for 40 percent of all low-carbon fuel used in California, roughly 175 million gallons, a significant jump from about 15 million gallons in 2011 (see chart 1). Primary feedstocks used are tallow and used cooking oil due to their low-carbon intensity value of about 30 and 18, respectively.

Tim Olson, California Energy Commission, showed a slight growth trend in diesel use in the state over the next 10 years compared to a projected decline in gasoline consumption during that time period. He noted that in 2003, CARB was mostly looking at tailpipe emissions. Today, it is much more complex with the state's goals of reducing greenhouse gas emissions and petroleum fuel use along with improvement in freight efficiency. Olson estimated that under the current five percent blend cap, biodiesel use in California will flatten out over the next 10 years while renewable diesel will grow (see chart 2). He also believes that 50 percent of biodiesel consumed in the state could come from in-state production if more facilities were built.

In response to the state's cap and trade initiative, the California Biofuels Coalition has been formed to help drive government policy in the right direction for all renewable fuels



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and to secure \$210 million from capand-trade auction proceeds for in-state biofuels production and infrastructure. The coalition includes members from the biodiesel, biogas, ethanol, and renewable natural gas industries.

"We have nothing to be gained by degrading other biofuels and everything to gain by working together," commented Russ Teal, president of Biodico Sustainable Biorefineries. The message from the coalition is that state policy should treat all biofuels equally and focus on in-state production, with the goal of producing 50 percent of the biofuels used in California.

Joe Jobe, National Biodiesel Board (NBB) chief executive officer, declared that carbon is the future of energy policy and carbon is biodiesel's story. He reported that biodiesel could help reduce the country's transportation emissions 18 percent by displacing 9 percent of the diesel fuel, and that the industry is concerned about increasing imports of biodiesel, predicted to be 850 million gallons this year.

In a panel examining adoption, compliance, and integration of regional clean fuel standards, Shelby Neal, NBB's director of state governmental affairs, added that another concern over imported fuels is that the companies producing them are not subject to the same legal consequences as United States producers so fraud could be an issue. Sam Wade, of CARB's transportation fuels branch, is looking at third-party certification of fuels to prevent fraud and informed attendees that due to legality reasons, the board has to be careful regulatory wording does not favor in-state production.

Another panel addressed the future of biodiesel feedstocks in the state. Paul Roos, California Department of Food and Agriculture, discussed the state's inedible kitchen grease manifest requirements, which are required by law and part of the verification system to meet California's LCFS. Stephen Kaffka, University of California, Davis, reported that annual winter oilseed crops have a role in biodiesel feedstock but still need continued research and support. Alan Weber, NBB's senior advisor, confirmed that the biggest barrier to growing alternative oilseed crops is the return on investment and lack of research dollars.

Despite Successes, Still Much Work Ahead for California Biodiesel Producers

By Jennifer Case Chair, California Biodiesel Alliance

Editor's note – The following is a speech, in part, given by Jennifer Case, president of New Leaf Biofuels, on the state of the California Biodiesel Alliance at the group's conference in late February in Sacramento, California.

When I wrote my company's business plan in 2006, a barrel of oil was around \$60 and rising quickly. Less than two years later, in the summer of 2008, when New Leaf Biofuels finally produced its first batches of biodiesel, diesel prices had fallen 70 percent. In addition, the "splash and dash" loophole was closed, leaving ships full of biodiesel sitting off the coast with nowhere to go, while underground storage of biodiesel over five percent blends was banned in California. Biodiesel producers have been struggling like salmon swimming upstream since then. The federal biofuels tax credit passes Congress, then the credit expires. The Renewable Fuel Standard (RFS) passes, then renewable identification number prices plummet in light of fraud. The California Low Carbon Fuel Standard (LCFS) passes, and then is halted due to lawsuits. It was struggle after struggle.

Ten years ago, California's renewable fuels industry was comprised of only one or two biodiesel plants with total consumption of production at less than three million gallons. In 2015, almost 277 million gallons of biodiesel and renewable diesel was used in California. That is a huge accomplishment in 10 years!

This year, the federal tax credit has been reinstated, the RFS program is relatively stable for the foreseeable future, and the LCFS is back in place. However, this is literally the strangest market the industry has ever seen. Demand is similar to 2011 but with today's oil prices so low, renewable fuel producers and marketers are having trouble finding a home for all their fuel. Yet 2015 was full of accomplishments.

Low Carbon Fuel Standard

On September 25, 2015, the California Air Resources Board (CARB) voted to re-adopt the LCFS effective January 1, 2016. CARB is committed to the original LCFS goal of a 10 percent reduction in the carbon intensity of fuels by 2020. The regulation includes a new compliance curve to reach that goal, beginning with an immediate jump to two percent from the one percent level that has been in place for several years during the re-adoption process, then ramping up from there.

In order to participate in the readopted program, all fuels must be reevaluated and assigned a new carbon intensity score. This process has already begun as most renewable fuel producers were obliged to turn in applications by January 31 in order to have a final pathway by year's end when the old carbon intensity scores will be discontinued.

Renewable Fuel Standard

This battle began back in the fall of 2013 when the Environmental Protection Agency (EPA) proposal for the 2014/2015 renewable volume obligation was "leaked" to the public. EPA was proposing to stagnate the biomass-based diesel volumes at 1.28 billion gallons for two years, which would have reduced production in the United States (US) by half. After a long process, EPA finalized the biomass portion of the rule through 2017, which steadily increases the program from 1.7 billion in 2014 to 2 billion in 2017.

Biodiesel Tax Incentive

The federal biodiesel tax credit was reinstated retroactively for 2015 and through 2016, providing producers and marketers a much-needed margin for biodiesel blending.

Continued on page 44

California Legislative and Regulatory Successes

Tax refunds now available for dyed blended biodiesel: The California Biodiesel Alliance (CBA) was the proud sponsor of Assembly Bill (AB) 1032, which passed the state legislature, was signed into law by Governor Jerry Brown last year, and implemented January 1, 2016. This very important new law corrects a long-standing tax problem that precluded buyers of biodiesel for off-road activities from obtaining a refund of the road taxes paid to the fuel producer.

Elimination of restriction on recipient's ability to generate LCFS credits: The Alternative Renewable Fuel Vehicle and Technology program funds, commonly known as AB 118 funds, originally contained a restriction that precluded grant recipients from benefiting fully from LCFS credits that stemmed from state-funded projects. CBA worked with policymakers and successfully eliminated this provision.

AB 692 – Government fleets to use renewables: Beginning January

1, 2017, at least three percent of the bulk transportation fuel purchased by California's state government must be procured from very low carbon transportation fuel sources. The bill would require the percentage to be increased by one percent each year thereafter until January 1, 2024. CBA is now working with the Department of General Services to ensure proper interpretation of the statute.

Alternative Diesel Fuels (ADF) regulation: This policy was necessary to settle a lawsuit that threatened the LCFS by regulating the biodiesel blends used in California. Despite the fact the ADF has placed a burden on the state's biodiesel industry, it is a legislative success due to the significant strides the industry made to reduce the harmful impact. The intention of the regulation was to address a finding by the court that CARB failed to do a California Environmental Quality Act analysis on the LCFS program, essentially allowing the program to go forward despite a potential increase in nitrogen oxide when older engines burn biodiesel at higher blends. Some opponents would have preferred an outright ban on the

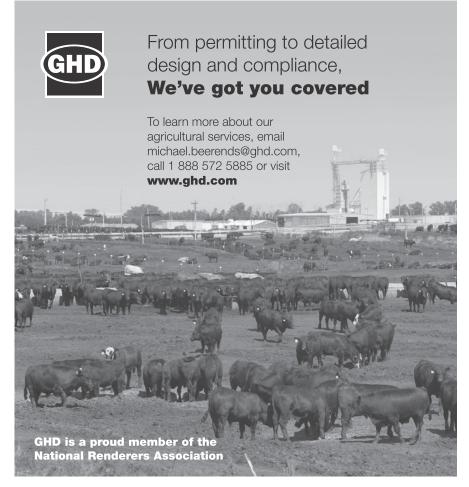
use of biodiesel, so this was a fight the industry could not afford to lose.

Ultimately, the outcome after significant negotiation and compromise was a two-year implementation phase-in with reporting requirements beginning this year. All producers and marketers of biodiesel are required to report to CARB the volumes of biodiesel produced, the percentage of the blend, and the cetane number of the fuel. Beginning January 2018, blends above certain levels will be restricted during certain seasons, depending on the saturation level of the feedstock. Now that this regulation has been adopted, the industry can begin planning for the future. This includes a special project by the National Biodiesel Board to develop an additive that will work to allow higher blends of biodiesel year-round.

Looking to the Future

We can easily agree that 2015 was one of the most successful and productive years as far as achieving long-term policies that favor the biodiesel industry. Yet this year feels like the Twilight Zone with 2011 market signals but 2008 prices and demand, which brings me to the industry's biggest challenges. Although California biodiesel producers have the home-field advantage, the market created by the LCFS is so attractive that we are competing with massive imports of biofuels from other states and countries. This is a struggle for the entire industry, not just California. The volumes of biofuels coming in from Argentina, Singapore, Korea, and dozens of other countries are staggering. Many of these countries enjoy an additional advantage in their home country that allow delivery into the United States at lower costs, driving down the value for US product and over-saturating the market.

These countries are doing this for a very logical reason. Manufacturing is very healthy for an economy. It is widely known that manufacturing has the highest multiplier effect of any other sector of an economy. Out of every other industry, manufacturing provides more indirect benefits to society at a rate that is double, triple, or even quadruple the direct benefits provided by the facility. Although there are only a handful of commercial biodiesel plants in California, there are many more feedstock



suppliers, contractors, consultants, logistics companies, regulatory staff, safety specialists, and so on.

California is way ahead of the game in understanding that greenhouse gas emissions must be curbed. Yet according to the latest data from CARB, of the nearly 277 million gallons of diesel alternatives consumed in California, only 12 percent came from in-state producers. Californians are enjoying the environmental benefits of the LCFS program, but the vast majority of the economic benefit is being enjoyed by South America, Asia, and other parts of the United States.

California Biofuels Initiative

For the past year, CBA leadership has been working closely with other biofuels on a proposal to allocate \$210 million from California's Greenhouse Gas Reduction Fund proceeds to incentivize in-state production of low carbon biofuels. Governor Brown has a goal of reducing petroleum use in the state by 20 percent by 2030, which everyone agrees is a lofty goal. Yet last year at this time, not a single dollar from the fund was allocated to specifically incentivize the in-state production of biofuels. As a result, California is way behind where it should be in the manufacturing sector and with its infrastructure. The state is leaving a lot of money on the table by exporting the economic benefits back to the producing state or country.

This is an important point considering that 90 percent of compliance under the LCFS program is coming from biofuels and the Greenhouse Gas Reduction Fund is largely coming from petroleum sector funds. There is a strong nexus that supports an allocation to petroleum replacement fuels.

The Biofuels Initiative is meant to correct that. Because of efforts, the governor has allocated \$25 million to the initiative and CARB announced it would earmark \$40 million from its \$50-million-dollar pot. So we are about a third of the way there.

A delegation from CBA recently conducted legislative visits at the state capitol explaining that while the industry appreciates the efforts made so far, it needs a larger allocation. That message was well received and CBA expects a good showing of support during this year's budgeting process.

Celebrating 44 years

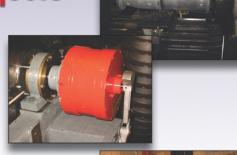


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Rendering and Politics: NRA's Yearly Fly-in

Politics is in the air with national elections in the United States (US) just six months away. Regardless of your position on the candidates, one of the strengths of the US democracy is the right to free speech. Another is to vote. This election year has been full of surprises so far and US presidential candidates are still vying for their party's nomination.

Early on, pundits predicted businessman Donald Trump and Vermont Senator Bernie Sanders would falter. Those same pundits were also confident the party faithful would support traditional Republicans and Democrats. However, the appeal of "shaking things up" by these outsider candidates has led both men to go much farther than originally expected. Fueling this political upheaval against the system is a combination of deep anger against politics as usual, a bickering Congress and their lack of accomplishment, and frustration about the direction and standing of America. The pundits were wrong and the people are speaking.

Those who represent Americans in Washington, DC, in states, and in communities, should take this year to genuinely listen and lead. They can lead by making the hard, but right, decisions and not compromising for political favors or backtracking. They can also be authentic and responsive to those they serve while being respectful and inclusive when others disagree. Perhaps this could be a year when things start turning around. Renderers can also do their part to be heard and counted during this unpredictable year.

The National Renderers Association's (NRA) Annual Washington Fly-in gives renderers a personal voice with their members of



David Kaluzny

Congress and an inside look at issues affecting their business. Government decisions directly impact rendering operations, from animal disease outbreaks to environmental regulations to the new Food Safety Modernization Act.

To keep rendering "top of mind" for policymakers deciding a host of important issues, NRA members travel to the nation's capital every June to meet with their representatives and senators. The fly-in is hosted by NRA's Legislative Committee, chaired by Dave Kaluzny of Kaluzny Bros. Inc.

This year's fly-in is June 13-15. NRA members will visit congressional offices to carry their story to Congress members

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and staff. The top rendering issues for congressional meetings will be identified at the NRA Spring Meeting in April.

"We can no longer afford to be invisible," urged Kaluzny. "As a wise man once said, 'If you're not at the table, you're on the menu." Out of sight can mean perilously out of mind.

An issues briefing will kick off this year's fly-in. Top speakers will talk about the outlook for livestock, poultry, and grain/feed markets domestically and overseas, food safety, challenges to managing animal disease, and other major issues facing the rendering industry. There will be plenty of opportunities for interaction and questions.

Before their congressional meetings, fly-in participants will hear about rendering issues from NRA's lobbying team during dinner on Capitol Hill. At breakfast the next day, a Capitol Hill speaker will provide a congressional update with insights into the latest happenings. All attendees also receive full briefing information before the fly-in to be ready for their congressional meetings.

According to Jim Andreoli Jr., co-president of Baker Commodities, his company's congressional members now better "understand the importance of rendering" after flyin meetings. "They're also interested in biofuels tax credits and common-sense implementation of the Food Safety Modernization Act," Andreoli added.

"The fly-in gives you an opportunity to get a feel for how the system works in Congress," said Ken Gilmurray, JBS. "There are fewer companies now and we all compete, but in the end we only have each other. Coming to the fly-in is a joint venture to promote rendering as a whole and showcase the positives of what we do. We must try to prevent ourselves from being over-legislated and over-regulated."

NRA considers the fly-In as an investment for the industry. Educating and spreading rendering's story as broadly as possible is always beneficial. Waiting until important decisions are being made can be too late, often with bad results. In addition, many people visited in Washington, DC, will have little or no knowledge about rendering. Our story will get told many times over after these visits.

The fly-in, along with NRA's on-the-ground advocacy in Washington, DC, helps achieve the association's goal to promote and defend the rendering industry's interests to national legislators and regulators. Advocacy is a top priority in NRA's new 2020 Strategic Plan adopted by the board of directors last year. Promoting effective public policy, regulation, and technology (among other initiatives) is important to accomplish NRA's mission of advocating for a sustainable food chain, public health, and environment through the production and marketing of rendered products and services.

Renderers may hold different political views, but they can unite to educate elected officials about what they do and the industry's contributions to agriculture, their communities, and the environment. This is vital to the continued success of the rendering industry. When renderers tell their own story, it is compelling and helps to protect the integrity of the industry for the future. As an NRA member, I hope you will attend this year's fly-in in June to speak up and be heard.

For information, contact Barbara Alexander at NRA at balexander@nationalrenderers.com or (703) 683-0155. **R**

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REG Buys Sanimax Biodiesel Plant

Renewable Energy Group Inc. has purchased Sanimax Energy LLC's 20-million-gallon biodiesel refinery located in DeForest, Wisconsin, for \$11 million in cash and 500,000 shares of REG common stock. REG may also pay Sanimax up to an additional \$5 million in cash over a period of up to seven years after closing based on the volume of biodiesel produced at the plant, which is now named REG Madison LLC. Sanimax will continue to own and operate its grease processing facility located next to the biodiesel plant.

"Having a dependable feedstock supplier co-located next door should provide an opportunity for additional cost savings and logistical advantages," said Daniel J. Oh, REG president and chief executive officer (CEO). "We have done business with Sanimax and the Couture family for many years and look forward to a continuing prosperous relationship."

"This agreement is in line with our business plan to improve focus on our core businesses," said Martin Couture, Sanimax's president and CEO. "We are pleased that our biodiesel employees will have an opportunity to pursue their career with an industry leader. This is a reflection of the excellent work they have achieved over the past several years."

The biorefinery is located just north of Madison, Wisconsin, and began production in 2007. Using the same REG patented and proven high free fatty acid processing technology as the company's Seneca, Illinois, plant, it produces biodiesel from lower cost feedstocks including yellow grease, rendered animal fats, and inedible corn oil in addition to refined vegetable oils. The facility has both truck and rail capabilities.

With this purchase, REG now has 11 active North American biomass-based diesel refineries in seven states with a combined production capacity of 452 million gallons.

German Biodiesel Exports Drop

Although interest in biodiesel from Germany continues to be high, German producers exported just over 1.4 million metric tons (377.7 million gallons) of biodiesel in 2015, 16 percent less than 2014 record amounts of 1.7 million metric tons (451.7 million gallons), according to German Federal Statistical Office foreign trade figures. About 90 percent of exports went to European Union member states.

According to Agrarmarkt Informations-Gesellschaft mbH, the drop in German biodiesel exports last year was primarily due to a large decline in deliveries to the Netherlands, France, and Poland. Demand from the Netherlands, the top export market, plummeted 42 percent from the previous year, orders from Poland were down 38 percent, and exports to France dropped 26 percent, although the country did hold on to its second position after the Netherlands. Austria was the third largest importer of German biodiesel with a slight increase from 2014. By contrast, the volume of exports to Norway, Czech Republic, and Sweden increased significantly. Norway

imported 50 percent more in 2015 than the year before at 128,000 metric tons (33.8 million gallons), while demand from the Czech Republic rose almost 80 percent to 111,000 metric tons (about 33.3 million gallons).

In addition, German imports of biodiesel fell 11 percent to 517,000 metric tons (136.5 million gallons) last year, the lowest level on record, according to Agrarmarkt Informations-Gesellschaft. Malaysia supplied 132,000 metric tons (32.4 million gallons), just over one-third more than in 2014.

Argentina Increases Biodiesel Export Tax – Twice

The government of Argentina more than doubled export taxes on biodiesel in February from 1.6 percent to 3.9 percent then raised them again in March to 6.4 percent. According to reports, the move is a blow to an industry running at 60 percent of production capacity due to low oil prices, limited export opportunities, and a saturated domestic market.

Before the two increases, Argentina's export taxes were at their lowest in January since the government implemented a sliding-scale system of export duties for biofuel in 2012. The country's biodiesel producers have been lobbying Argentina's new government for a fixed export duty.

Brazil Biodiesel Production Breaks Record in 2015

Brazil produced a record 1 billion gallons of biodiesel in 2015, up 15 percent from the previous year, according to the country's Ministry of Mines and Energy. The top production region in the country was the Midwest with 44 percent of total production, followed by the south at 38 percent, and the northeast at 8 percent.

Soy oil was the primary feedstock used in the production of biodiesel last year. Beef tallow followed at 18 percent and cottonseed oil accounted for the rest, according to the Brazilian Agency of Petroleum, Natural Gas, and Biofuels.

Sentencings Continue in Biodiesel Fraud Schemes

Several more defendants involved in biodiesel fraud schemes in the United States recently learned their fate.

In Houston, Texas, Philip Joseph Rivkin, aka Felipe Poitan Arriaga, has been sentenced to 10 years in prison, three years of supervised release, and to pay more than \$87 million in restitution. He was also ordered to forfeit \$51 million for generating and selling fraudulent biodiesel credits in the federal renewable fuel program.

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In June 2015, Rivkin pleaded guilty to one count of mail fraud and one count of making a false statement under the Clean Air Act. Beginning around February 2009, Rivkin operated and controlled several companies in the fuel and biodiesel industries, including Green Diesel LLC based in Houston. Rivkin claimed to produce millions of gallons of biodiesel at the Green Diesel facility and then generated and sold renewable identification numbers (RINs) based upon this claim. In reality, no biodiesel was ever produced at the Green Diesel facility. This scheme allowed Rivkin to generate over 60 million fraudulent RINs that were then sold to companies that needed to obtain them under the Environmental Protection Agency's Renewable Fuel Standard, which resulted in millions of dollars in sales. Rivkin created false records and made false statements to conceal his fraudulent claims of biodiesel production, importation, and RIN generation.

In Indiana, Chris Ducey was sentenced in mid-February to six years in prison for his role in a \$145 million scheme in which he and others resold over 35 million gallons of biodiesel in order to illegally claim up to \$35 million in fraudulent RINs. He was also ordered to pay \$56 million in restitution. Ducey worked as a logistics manager for Indiana-based E-Biofuels LLC, the company at the center of the scheme.

Last year, Ducey, along with two of his brothers, pled guilty to a conspiracy to claim up to \$35 million in federal tax credits for biodiesel that did not exist or qualify for the incentives. Ducey also pled guilty to false claims against the Internal Revenue Service, wire fraud, false statements under the Clean Air Act, and obstruction of justice.

From 2007 through 2012, E-Biofuels owned a biodiesel plant in Middletown, Indiana. The company claimed to produce biodiesel when, in fact, it resold biodiesel that had been

produced by others and already used to claim tax incentives. Ducey and his brothers conspired with executives of New Jersey companies Caravan Trading Co. and CIMA Green, who were sentenced earlier this year (see "Biofuels Bulletin" in the February 2016 *Render*).

United Airlines Flies with Biofuel

United Airlines is the first airline in the United States (US) to begin using commercial-scale volumes of renewable aviation biofuel for regularly scheduled flights from Los Angeles International Airport in mid-March. The launch marks a significant milestone in the commercial aviation industry by moving beyond demonstration flights and test programs to the use of advanced biofuels for United's ongoing operations.

The airline began operating daily flights between Los Angeles and San Francisco for two weeks using AltAir Fuels' renewable fuel while also integrating the fuel into its regular operations at the airport. United has agreed to purchase up to 15 million gallons of biofuel from AltAir Fuels in Paramount, California, over a three-year period. The airline is using the renewable fuel in its daily operations at Los Angeles, storing and delivering it in the same way as traditional fuel.

In 2009, United became the first US carrier to perform a biofuel demonstration flight. In 2011, the airline became the first US carrier to operate a commercial advanced biofuel flight. Last year, United announced a historic \$30 million equity investment in US-based alternative fuels developer Fulcrum BioEnergy Inc., a pioneer in the development and commercialization of converting municipal solid waste into low-cost aviation biofuel. The investment is the single largest by a US airline in alternative fuels.



Modernizing Global Customs Codes

Rendered products are exported around the world in large volumes. Animal protein meals, animal fats, and recycled oils are sold globally as ingredients in animal feeds, pet foods, biofuels, and oleochemicals, to name just a few.

The recording and publishing of trade in rendered products worldwide is administered by the World Customs Service (WCS) using product code listings. WCS controls the first six digits of product codes and individual countries can allocate balance digits to reflect individual products.

Trade of rendered products has occurred for over 80 years and the codes allocated to these products are basic and not species-specific. During this time, rendering has progressively developed with renderers now producing many various meals, fats, and oils. Today, there are too few global product codes available to adequately describe the production and trade of actual rendered products.

To address the issue in Australia, the Australian Renderers Association (ARA) approached the Australian Customs Service (ACS) in 2015 to seek an expanded list of rendered product codes to reflect actual products traded and shipped. ARA described the issue to ACS as follows:

- a) Currently the codes are not species-specific and do not differentiate ruminant from monogastric animal meals; all are simply coded as meat and bone meal.
- b) Product codes are too restrictive. Both poultry fat and pig fat/lard are two very different products and yet are shipped to countries under the same code even though certain countries (i.e., Muslim) preclude trade in porcine material. These products should have separate codes.
- Importing countries and importers use different product codes than exporters and exporting countries do causing a conflict on tariff rate codes.
- d) Current codes are not workable for a country that may accept ruminant meat and bone meal but have a ban on avian material because both ruminant and poultry meal are under the same code.

ARA obtained approval from ACS in May 2015 to use an expanded list of rendered product codes effective July 1,

2015, providing a more accurate understanding, awareness, and recordkeeping of actual products traded. This has allowed importing countries to then determine which product is entering their country instead of many products being grouped together under one code as has been done for the last 50-plus years.

With many countries exporting rendered products today – Argentina, Australia, Brazil, Canada, European countries, Mexico, New Zealand, Paraguay, South Africa, United States, Uruguay, and others – there is a disconnect between what codes one country exports product under and what codes importers use. There is also no separation for species-specific products that reflects the change in a growing world trade.

On the global stage, ARA, as a member of the World Renderers Organization (WRO), raised this issue at two WRO meetings in 2015. A general consensus determined that an application and recommendation seeking an expanded rendered product codes listing be written by WRO and presented to WCS for global implementation in 2016. Initial advice has been sent to WCS to consider the proposal and WRO now awaits a response. If WCS approves, then it has 6 to 12 months to include, adopt, and ratify such changes. The next step would be communicating the changes globally through a "global advice" notification.

The expanded list is not exhaustive and other codes can be created for other species products, such as venison, buffalo (water), buffalo/bison (land), turkey, goose, or kangaroo meals. WRO can ask WCS to further expand the product codes to suit a growing number of rendered products traded. Should there be insufficient codes within the expanded framework, then WRO can write to WCS seeking new rendered product codes, chapters, and sections to allow for a whole set of new product codes.

WRO members are welcome to e-mail their specific needs or comments on this initiative to Tim.Juzefowicz@csfproteins.com.au for further review. In addition, all are welcome to attend the next WRO meeting on June 2, 2016, at the European Fat Processors and Renderers Association Congress in Messinia, Greece.





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April

5th Global Feed and Food Congress

April 18-20, Antalya, Turkey http://gffc2016.com

Petfood Forum

April 18-20, Kansas City, MO www.petfoodforumevents.com

National Renderers Association Spring Meeting

April 19-21 Reynolds Plantation, Greensboro, GA E-mail Marty Covert at co@martycovert.com or call (703) 754-8740

18th Annual International Aboveground Storage Tank Conference and Trade Show

April 20-22, Orlando, FL www.nistm.org

May

107th American Oil Chemists Society Annual Meeting and Expo

May 1-4, Salt Lake City, UT www.annualmeeting.aocs.org

Animal Agriculture Alliance Stakeholders Summit

May 5-6, Arlington, VA www.animalagalliance.org/summit

International Biodiesel and **Feedstock Conference**

May 26, Chicago, IL http://conference.thejacobsen.com

June

European Fat Processors and Renderers Association Congress

June 1-4, Messinia, Greece http://efpramessinia2016.com

National Renderers Association Central Region Meeting

June 8-10, Greenlake, WI E-mail Marty Covert at co@martycovert.com or call (703) 754-8740

World Pork Expo

June 8-10, Des Moines, IA www.worldpork.org

June (continued)

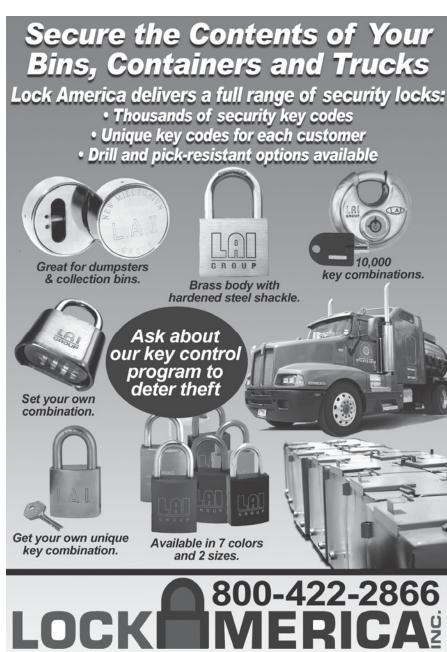
American Meat Science Association 69th Reciprocal Meat Conference June 19-20, San Angelo, TX • www.meatscience.org

July

Association of American Feed Control Officials Annual Meeting

July 31-August 1, Pittsburgh, PA • www.aafco.org

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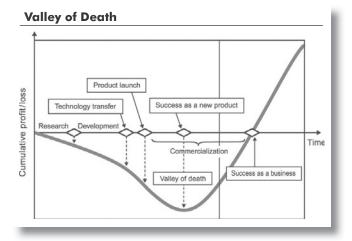
Climbing out of the Valley of Death

The phrase "valley of death" sounds very ominous – and it is. It is the phrase used for the time (and resources) between basic research and commercial operation to move projects out of the laboratory and into the marketplace.

The Fats and Proteins Research Foundation (FPRF) is focusing on commercialization of promising research. The primary goal of FPRF projects has been to publish scientific data that could be used to advance the knowledge of rendering processes, the use of products in animal diets, and the quality of fats and proteins. That has dramatically changed with several projects at the Animal Co-Products Research and Education Center (ACREC) at Clemson University having some possibility of patentability or commercialized product. FPRF members fund research that develops the underlying science for groundbreaking projects, but there is an inherent challenge to get these projects to marketplace.

Researchers tend not to know how to bridge the gap between research and business as that is not their role or training. Many are also not interested in commercialization because the usual university reward and advancement systems stress publication over implementation. One ACREC project that has come the furthest along the commercialization path is a novel antioxidant developed by Drs. Alexey Vertegel and Vladimir Reukov. Both researchers realized there was a need in the marketplace for a new antioxidant that could prevent rancidity and provide a longer shelf life in rendered products and pet food. The antioxidant market is a large one and for good reason. Most rendered products are not refrigerated and require antioxidant application to stay fresh.

Vertegel and Reukov were not daunted by taking a path most researchers avoid – forming a business called VRM Labs. The two researchers created a product named "Prot-X," which is a potent natural antioxidant similar to those already



present in the body. Vertegel and Reukov developed a proprietary production process from animal or poultry blood that is as efficient as synthetic antioxidants. All components used in production are designated by the Food and Drug Administration as "generally recognized as safe," which is essential in the marketplace. The production cost is low so the cost to the customer can be competitive with that of current natural antioxidants. The product also appears to have some antimicrobial properties in early trials.

The path to marketplace can be rocky even for cost-effective, promising products. FPRF funded four studies developing this antioxidant and the intellectual property belongs to Clemson University. VRM Labs has obtained an exclusive license for the technology from Clemson with half the funds the product generates being recycled back into ACREC where they will be available for future rendering research. High-value projects like this one could significantly increase ACREC funding for more rendering research.

Researcher Q&A

What has been the biggest hurdle with bringing your new antibiotic to commercialization and what advice would you give researchers just beginning this process?

Reukov: For me, the biggest hurdle was to find an optimal testing protocol that will suit all industries. My advice is that if your technology requires regulatory approval, start talking to regulatory agencies as early as possible.

Vertegel: From my perspective, getting funding. My advice would be to do some entrepreneurial training, such as with the National Science Foundation (NSF) Innovation Corps (I-Corps), and have good legal support, which is important for negotiations about license and investments.

Meisinger: I'll answer a different way. First, we were extremely fortunate to find a legal firm that catered to agricultural start-ups that also assumed part of the risk while in early development. They helped us to form and register

a new company, including the vesting and shares process, licensing of the technology, the patents, and confidentiality issues with other companies.

Secondly, we were again very fortunate to receive a NSF I-Corps grant that forced us to do market development in the most deliberate and structured way imaginable. We ended up talking to 137 potential customers and partners that led us to completely rethink our customer value proposition.

I think the biggest challenges are to properly set up the company as a legal entity, to develop a sound business plan and business prospectus, and to do a very robust market development thought process and plan.

Those are the primary components of my advice to anyone beginning this process. It is a very long and detailed path to commercialization that requires endurance and perseverance. R

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Vertegel and Reukov realized they needed the assistance of someone who knew more about starting a business in the animal feed industry so they teamed up with Dr. David Meisinger, executive director, US Pork Center of Excellence, and created VRM Labs. In 2014, the team collaborated with Iowa State University to examine scaling up the process. Iowa State has a pilot plant suited to larger extractions and experiments and they were successful in making large quantities of the antioxidant. However, the next two attempts failed to optimize the process and improve yield as expected, but efforts kept going. Each failed attempt added to the base of knowledge about industrializing the process.

Yet all of these attempts take money and time, making it difficult for such a small business to get off the ground. Vertegel and Reukov spent much time writing grants for small businesses and approaching "angel investors" that have been quite successful, with the company currently valuated at \$3.3 million. The product has won or been a finalist for several awards, including winning the Asia Pacific Ag Innovation challenge and the 2014 InnoVision Award in the small business category. All of these awards also bring recognition to FPRF.

Regulation is also a burden that can be costly and time-consuming to bring new products to market. Meetings with government officials in Washington, DC, are often required and can be problematic for a start-up. These trips take time and money, and must be repeated during the process.

The valley of death is a challenge faced by universities, research centers, and granting agencies. FPRF and ACREC

FPRF Website Revamped

The Fats and Proteins Research Foundation (FPRF) website, at www. fprf.org, is new, improved, and mobile friendly. The new site is updated, easy to navigate, and includes new information as well as simple instructions on how to join FPRF. Comments, questions, or ideas on what should be included on the website are welcome at info@nationalrenderers.com.

are focusing on solutions. Most researchers are not interested in developing a start-up business to market inventions, and established marketers and companies are reluctant to pay for inventions only proven in a lab. FPRF's budget is well-suited to fund basic research underlying patentable new innovations. However, enthusiastic inventors along with FPRF support beyond the initial funding can bring in venture capital and eventually result in a home run.

Pet Spending Up

Overall spending in the pet industry in 2015 came in at a record \$60.2 billion, according to the American Pet Products Association. Athough food remains the leading source of dollars spent, pet services continues to see the largest increase each year, growing 11.8 percent in 2015 from the previous year to \$5.4 billion. Spending on supplies/over-the-counter meds came in second at 3.9 percent growth to \$14.3 billion.









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Zika and Employer Liability Issues

Editor's note - Mark A. Lies II is a partner in the Environmental, Safety, and Toxic Tort Group in the Chicago, Illinois, law firm of Seyfarth Shaw LLP. He specializes in product liability, occupational safety and health, workplace violence, construction litigation, and related employment litigation.

Patrick D. Joyce and Adam R. Young are associate attorneys in the Environmental, Safety, and Toxic Tort Group of Seyfarth Shaw. Joyce focuses his practice in the areas of occupational safety and health, environmental litigation, environmental counseling, and construction litigation. Young focuses his practice on workplace safety, whistleblower litigation, as well as occupational and mine safety and health regulatory compliance counseling and enforcement.

Legal topics provide general information, not specific legal advice. Individual circumstances may limit or modify this information.

By now, worldwide health authorities and media have publicized the Zika virus disease that has been reported throughout South America, Central America, and the Caribbean. Although the United States (US) has only experienced a few cases of the virus associated with travel to affected regions, it is only a matter of time before the disease surfaces in more cases throughout the country. US employers and those with international operations should monitor the situation and be prepared to respond to questions from employees and supervisors.

Background

Zika is a disease caused by a virus that is spread to people primarily through the bite of an infected mosquito. The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild with symptoms lasting from several days to a week. People usually do not get sick enough to go to the hospital and they very rarely die. For this reason, many people might not realize they have been infected. An individual's symptoms may appear anywhere from two to seven days after exposure to the virus.

Zika is primarily transmitted through the bite of infected Aedes mosquitoes, the same mosquitoes that spread chikungunya and dengue. These mosquitoes are aggressive daytime biters but can also bite at night. Mosquitoes become infected when they bite a person already infected with the virus. Infected mosquitoes can then spread the virus to other people through bites. It can also be transmitted from a pregnant mother to her baby during pregnancy or around the time of birth. The US Centers for Disease Control (CDC) is studying how mothers pass the virus to their babies. Zika can also be transmitted via contact with bodily fluids of an infected person, such as through blood or sexual contact.

Specific areas where Zika virus transmission is ongoing are difficult to determine and likely to change. At the time this article was written, Zika cases have been identified in:

- American Samoa
- Bolivia
- Cape Verde
- Commonwealth of Puerto Rico, US territory
- Dominican Republic
- El Salvador
- Guadeloupe
- Guyana
- Honduras
- Martinique
- Nicaragua
- Paraguay
- Samoa
- Tonga
- Venezuela

- Barbados
- Brazil
- Colombia
- Costa Rica
- Curacao
- Ecuador
- French Guiana
- Guatemala
- Haiti
- Jamaica
- Mexico
- **Panama**
- Saint Martin
- Suriname
- **US Virgin Islands**

If traveling, visit the CDC Travelers Health website at wwwnc.cdc.gov/travel/page/zika-information for updated travel information.

Possible Legal Ramifications for Employers

There are several employment and other laws that may be directly involved with this disease and must be considered by employers.

Occupational Safety and Health Act

General Duty Clause: Under the Occupational Safety and Health Act, the employer has a legal obligation to provide a safe and healthful workplace. One of the Occupational Safety and Health Administration's (OSHA's) enforcement mechanisms is the ability to issue citations with monetary penalties to employers. The General Duty Clause (Section 5(a)(1)) of the act requires an employer to protect its employees against "recognized hazards" to safety or health that may cause serious injury or death.

Given that OSHA does not have a specific regulation dealing with Zika, the agency will utilize the General Duty Clause. In order to determine the scope of the employer's obligation under the General Duty Clause, OSHA is empowered to utilize outside nationally-recognized consensus standards or other authoritative sources. In this case, OSHA would rely upon recommendations issued by CDC, the National Institute for Occupational Safety and Health, the World Health Organization, or other similar resources. If the agency can establish that employees at a worksite are reasonably likely to be "exposed" to Zika (e.g., work-related travel to affected regions, occupations with enhanced exposure to mosquito bites due to working outdoors), OSHA may require the employer to develop a plan with procedures to protect its employees.

Multi-employer worksite: Under the act, the host employer may also have additional legal obligations to the employees of another employer who come to the host

54 April 2016 Render www.rendermagazine.com employer workplace and may potentially be exposed to the hazard (in this case by exposure to mosquitos carrying Zika). OSHA can utilize its authority under the "multi-employer workplace doctrine" to issue citations to the host employer if personnel of another employer are exposed or the host employer created the hazard or exposed the other employees to the hazard. The host employer or the controlling employer at the site will ultimately be held responsible to correct the hazard.

Response plan: OSHA will expect the responsible employer to develop a program based upon a "hazard assessment" of potential exposure at the worksite (hygiene and decontamination), including:

- conduct employee awareness training regarding the hazard;
- develop procedures requiring the issuance and use of personal protective equipment (e.g., masks, gloves) if necessary to prevent infection and transmission;
- develop a means of reporting infection and providing medical surveillance for employees who contract the disease;
- maintain appropriate documentation of these actions;
- preserve medical records; and
- record on the OSHA 300 Log any illnesses that are occupationally related.

Whistleblower protection: Because of the health hazards associated with this disease, it is possible that an employee could refuse to work because they believe his/her health is in imminent danger at the workplace due to the actual presence or reasonable probability of the disease at the workplace. An employee who makes such a complaint is engaging in "protected activity" under Section 11(c) of the act and is not subject to adverse action by the employer for refusal to work until the employer can establish through "objective" evidence that there is no hazard or the employer has developed a response plan that will reasonably protect the employee from exposure to the disease.

Application to pregnant employees: The Zika virus has been documented to cause injuries to fetuses, resulting in severe birth defects such as microcephaly. Generally speaking, an employer will only be liable under the act for injuries to employees and not to other parties. However, a pregnant employee's fear of injuries to the fetus may likewise give her grounds to refuse an assignment in which she would be exposed to the Zika virus – such as posting in a tropical area or working in a medical clinic treating the disease – and her refusal may be protected activity under Section 11(c). If an employer were to discipline her for refusing the assignment, the employer may face an unlawful retaliation claim under the act.

Workers' Compensation – Disability Benefits

In the event an employee contracts Zika as a result of occupational exposure (in other words, the illness "arises out of and in the course of employment" that the employee must prove with competent medical evidence), the employee is entitled to receive temporary total disability benefits in lieu of wages, reasonable and necessary medical treatment, and an award for

Continued on page 56

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any resulting permanent disability (e.g., reduced respiratory capacity, etc.). An employer should evaluate whether it has adequate workers' compensation insurance coverage and coverage limits that include occupational diseases.

If an employee contracts the disease and it is not occupationally related, the employee may be entitled to disability benefits if the employer provides such benefits. Again, the extent of such benefits and any exclusions should be carefully evaluated by the employer.



The employer must consider that Zika is going to involve varied medical issues, such as determining (1) whether the employee is infectious, (2) what type of treatment is necessary, (3) whether the employee presents a health risk to others, and (4) when the employee can safely return to work. Therefore, it is essential the employer identify a competent medical professional with expertise in infection control who can advise on all medically-related issues, including workers' compensation.

Potential Unlimited Tort Liability

In the event of employer negligence, under most state workers' compensation statutes, employees will be limited to the workers' compensation remedies and the negligent employer will be insulated from unlimited tort liability. The employer will be guaranteed compensation and the employer will be protected from large jury verdicts. However, where an employee can prove that an injury is substantially certain to occur or an employer was willfully negligent, the injured employee may be able to circumvent workers' compensation and sue the employer for unlimited tort liabilities. Accordingly, exposing an employee to a country for which the US Department of State or CDC has issued a travel warning, or a tropical area rife with an epidemic, may expose an employer to liability for uninsured workplace negligence claims.

Family and Medical Leave Act

Under the Family and Medical Leave Act (FMLA), employers with more than 50 employees are required to provide up to 12 weeks of unpaid leave to a qualified employee who has a "serious health condition." An employee is also eligible under FMLA in the event of a serious health condition affecting a spouse, child, or parent.

If an employee contracts Zika, given its mild symptoms, the disease may or may not be considered a serious health condition under FMLA. However, if it is determined to be a serious health condition, it is therefore a condition warranting the unpaid leave. Similarly, if an employee's parent, spouse, or child contracts the disease, this will likely be a qualifying event entitling the employee, with physician's documentation, to

utilize leave time to care for such an immediate family member.

If the employee exhausts the entire 12 weeks of FMLA leave and is unable to return to work at that time, the employer may wish to consider additional unpaid leave for the employee, although such leave would be outside of FMLA-required reinstatement rights.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) provides certain protections to employees who may have physical, mental, or emotional "disabilities" but who are otherwise qualified to perform the essential functions of their jobs. Typically, a disability is an impairment that substantially limits one or more of the major life activities of an individual (e.g., breathing, working, speaking) and is chronic in nature. Because Zika has rarely resulted in death or serious disability, it is unlikely it would qualify as a disability. However, certain individual cases of Zika may result in complications or other effects from the virus that could qualify as a disability.

The ADA may also become a factor if an employee develops a disability as a result of the disease and cannot return to their former work duties because of such impairment. The employer must then be prepared to engage in an "interactive process" with the employee that involves a case-by-case dialogue regarding the employee's ability to return to work, any work restrictions, what accommodations may be available that do not cause undue hardship to the employer, or whether the employee's disability presents a direct threat to the health or safety of the employee or other employees. Again, it is recommended employers engage competent medical advice regarding any accommodations that may be warranted as a result of the long-term effects of this disease.

Premises Liability

Under general common law principles in most jurisdictions, a landowner (sometimes the employer) who allows third parties to enter upon his/her premises for business or related purposes — such as clients, vendors, or contract employees — owes these individuals a duty of "reasonable care" to protect them against hazards at the premises that are not "open and

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obvious." In the case of Zika, if the landowner (i.e., a healthcare provider, emergency responder, transportation related company) is (or should be) aware there are persons at the premises with Zika (whether its own employees or tenants) who may create a health hazard to these third party entrants, there may be a duty to warn such third parties, or to prevent access to certain facility areas, due to Zika's ability to be transmitted by contact with contaminated blood.

In many cases, the legal duty of the landowner for site security and sanitation will be defined by contractual documents, such as leases. The landowner should make sure to review such documents to confirm its obligations regarding third parties who may have access to the property.

Recommendations

It is recommended that employers become knowledgeable about this disease by accessing recognized sources of information, identified below. In addition, employers should determine, based upon a "hazard assessment," whether a Zika response plan is required. For example, does the employer employ individuals:

- in industries where exposure may be likely (i.e., healthcare, emergency response, professions requiring exposure to biting mosquitoes, or outdoor activities), or
- who have or are expected to travel to/from South America, Central America, and the Caribbean or other geographical areas where the disease has been identified?

If so, the employer may need to consider:

- means and methods to inform employees about Zika and how they may protect themselves before travel to areas known to have confirmed cases of Zika, and
- what procedures will be followed if an employee reports they have been infected with the Zika virus.

Finally, in the event the employer engages in activities where there is a possibility of employee infection, the employer should consider consulting with its local Department of Public

Health to obtain guidance, as well as engaging with a medical provider who has particular expertise with diseases such as Zika.

Additional information on Zika can be found at the following:

World Health Organization
www.who.int/mediacentre/factsheets/
zika/en/

Centers for Disease Control
www.cdc.gov/zika/

CDC Emergency Response Hotline for
health employers — (770) 488-7100
US Department of Health and
Human Services — ww.hhs.gov/
blog/2016/01/28/zika-101.html
OSHA — www.osha.gov
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Darling Enters Joint Venture to Harvest Insects for Feed

Intrexon Corporation, a leader in synthetic biology, is acquiring EnviroFlight LLC and will form a joint venture with Darling Ingredients Inc. to develop a new protein source for animal feed. EnviroFlight has developed proprietary



technologies that enable the production of non-pathogenic black soldier fly (BSF) larvae in an industrially scalable manner. According to Intrexon, this innovative approach has considerable potential within the \$60 billion global animal feed industry as it will provide an environmentally-friendly, toxin-free, sustainable source of high-value nutrients.

"Current trends in human population growth drive increased demand for protein supply in food production and we believe that BSF larvae provide the potential to revolutionize the animal feed industries," commented Corey Huck, senior vice president and head of Intrexon's Food Sector. "Through our partnership with Darling, we look forward to employing EnviroFlight's platform to create high-nutrition, low environmental impact animal and fish feed as well as fertilizer products."

Since late 2014, EnviroFlight has collaborated with Darling Ingredients to refine its scalable production processes for BSF larvae and upgrade its pilot facility. The joint venture intends to begin construction of a commercial plant this year.

Within the fish and poultry markets, BSF larvae may be more representative of the typical diet of these natural insectivores than soybean and other plant-based meals. Fish meal and fish oil are multi-billion dollar products critical to aquaculture's continued growth, yet demand is outpacing the fairly inflexible supply for these valuable feeds whose manufacture is heavily dependent on wild-caught fish.

"Black soldier fly larvae meal may represent a very useful ingredient in aquaculture and importantly it has no impact on the marine ecosystem," stated Dr. Rick Barrows, research physiologist at the United States Department of Agriculture's Agricultural Research Service. "Starter diets for rainbow trout incorporating BSF larvae meal resulted in an increase in feed consumption and growth, showing high palatability suggesting it could be useful with some of the more finicky species such as salmon and yellowtail. Furthermore, we have also found the essential nutrients in BSF larvae meal to have high digestibility."

While working with regulatory agencies to gain approvals for the use of BSF larvae for food animals, EnviroFlight will continue to supply select markets with animal feed and all-natural fertilizers.

Novus Celebrates 25 Years

On June 6, 2016, Novus International will celebrate its 25th business anniversary with the theme, "Helping Feed Tomorrow." Novus was founded in 1991 out of the scientific heritage of Monsanto. The company was subsequently purchased and is still privately held today by Nippon Soda and Mitsui and Company.

Over the past 25 years, Novus has become an industry leader in animal nutrition beginning with its ALIMET and MHA methionine supplements and



SANTOQUIN feed preservative primarily for the monogastric and rendering markets. Since then the company has expanded its product portfolio to include chelated trace minerals, enzyme products, and an entire line of organic acids. Novus has also diversified its feed preservation portfolio to include SANTOQUIN Plus for rendered/blended products, SANTOQUIN Q4T for veg-type diets and products, and AGRADO Plus for the ruminant market.

Mahoney Environmental Awarded

Mahoney Environmental, a recycler of used cooking oil for over 60 years, has received the "2015 Vendor of Excellence" award from Buffalo Wild Wings, a national restaurant chain with more than 1,000 locations in North America. Award recipients are chosen based on feedback from headquarters and franchisees.

Each year, Buffalo Wild Wings names Vendors of Excellence and chose Mahoney Environmental for its strategic partnership in supporting the restaurant's back-of-the-house operations. Mahoney Environmental currently services Buffalo Wild Wings restaurants as their preferred vendor in used cooking oil collection and recycling, grease trap services, and grease reclamation equipment. They are the the only vendor approved by Buffalo Wild Wings to supply grease reclamation equipment.

Malone Named Marketing Director for Kemin Pet Food

Steve Malone has been named director of marketing for Kemin Industries' pet food division, leading global marketing efforts for the company's antioxidant, antimicrobial, and palatant business. Prior to Kemin, Malone served in leadership roles in the pet food industry, directing marketing strategy for Pedigree, Nature's Recipe, and Prescription Diet brands.



Australian Renderers Group Founder Dies

Brian Bartlett, founder of the Australian Renderers Association (ARA), died on March 14, 2016. He was 81 years old.

Bartlett's name is synonymous with the ARA, which he founded in 1976 as the Australian Meat and Bone Meal Shippers' and Producers' Association. Until then there had been no specific representation of the Australian rendering industry, which was generally regarded as a by-product of the country's livestock and meat industries. Bartlett was the first ARA national president, a position he held until 1992 after which he maintained an active interest in ARA and its members. He was a mentor to many ARA directors in the years after his retirement and was a strong supporter of the establishment of the World Renderers Organization in 1999.

At the time he founded ARA, Bartlett was concerned about two specific areas affecting the production and trading of rendered products: the need to abolish the Australian government's restrictions on the export of meat and bone meal and the lack of competition within the shipping industry that led to respect of shipping freight rates offered to shippers of rendered products. Under Bartlett's guidance and with his significant contacts, he was able to get the export markets open for rendered products through the removal of export restrictions by the government. Through his persistence, shipping freight rates and conditions for the export of rendered products to the European, North

American, and Asian markets became workable within the rendering industry.

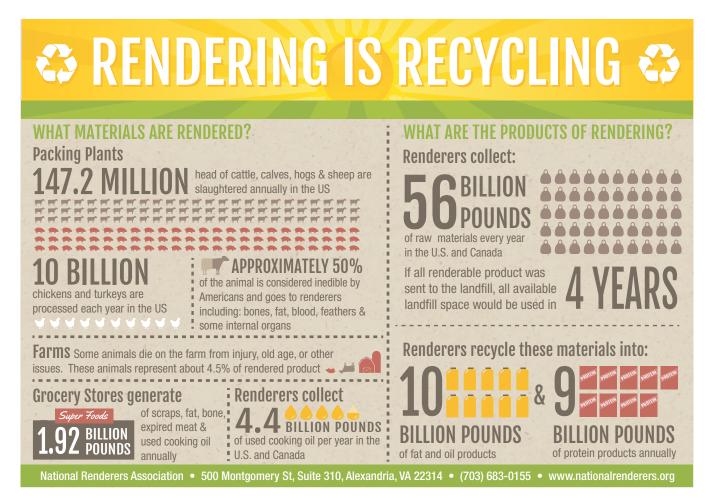
When bovine spongiform encephalopathy arose in the United Kingdom and then Europe in the late 1980s, Bartlett was at the forefront of the Australian response with the assistance of the



government, in particular Australian Chief

Veterinary Officer Dr. Gardner Murray. Under Bartlett's chairmanship, ARA developed and implemented a *Code of Practice for Hygienic Rendering* followed by a system of accrediting rendering establishments and select personnel (by training through workshops that continue today) on the ARA *Code of Practice*. To assist with education of the industry, a symposium was organized and first held in 1991, at which Dr. Fred Bisplinghoff was the keynote speaker. These symposiums have continued every two years since then.

On Australia Day (January 26) 2004, Bartlett was appointed a member of the Order of Australia for his service to rendered animal product and grain export markets, the ARA, and his support for nutrition research.



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Industry Websites

American Fats and Oils Association www.fatsandoils.org
American Feed Industry Association
American Meat Institute www.meatami.com
Animal and Plant Health Inspection Services www.aphis.usda.gov
Animal Agriculture Alliance www.animalagalliance.org
Animal Protein Producers Industry www.nationalrenderers.org/biosecurity-appi
Association of American Feed Control Officials www.aafco.org
Australian Renderers Associationwww.ausrenderers.com.au
Canadian Renewable Fuels Associationwww.greenfuels.org
European Fat Processors and Renderers Associationwww.efpra.eu
Fats and Proteins Research Foundationwww.fprf.org
Food and Drug Administration (FDA)www.fda.gov
FDA Animal and Veterinarywww.fda.gov/animalveterinary
National Biodiesel Boardwww.biodiesel.org
National Cattlemen's Beef Associationwww.beefusa.org
National Grain and Feed Associationwww.ngfa.org
National Pork Producers Council www.nppc.org
National Renderers Association www.nationalrenderers.org
National Renewable Energy Laboratory
Occupational Safety and Health Administration www.osha.gov
Pet Food Institutewww.petfoodinstitute.org
Processed Animal Proteins Infobank
U.S. Animal Health Association
U.S. Department of Agriculture (USDA) www.usda.gov
USDA Food Safety and Inspection Service www.fsis.usda.gov
USDA Foreign Agricultural Service www.fas.usda.gov
U.S. Poultry and Egg Associationwww.uspoultry.org
United Kingdom Renderers Association www.ukra.co.uk
World Renderers Organization



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