

The International Magazine of Rendering

February 2016

# Render

**Gazing into  
the Future**

**of the  
biofuels  
sector**

A hand is shown holding a crystal ball. Inside the crystal ball, the following text is visible: RFS, Tax Credits, Feedstocks, Renewable Diesel, Biodiesel, and Imports. The text is arranged in a list-like fashion, with 'Feedstocks' in yellow and the others in black.

**RFS**  
**Tax Credits**  
**Feedstocks**  
**Renewable Diesel**  
**Biodiesel**  
**Imports**

**Renewable Diesel  
Gaining Momentum**

**Top 10 Predictions  
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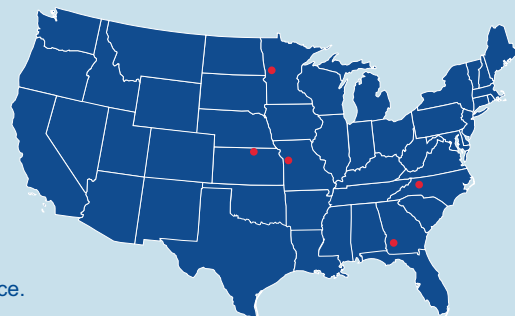
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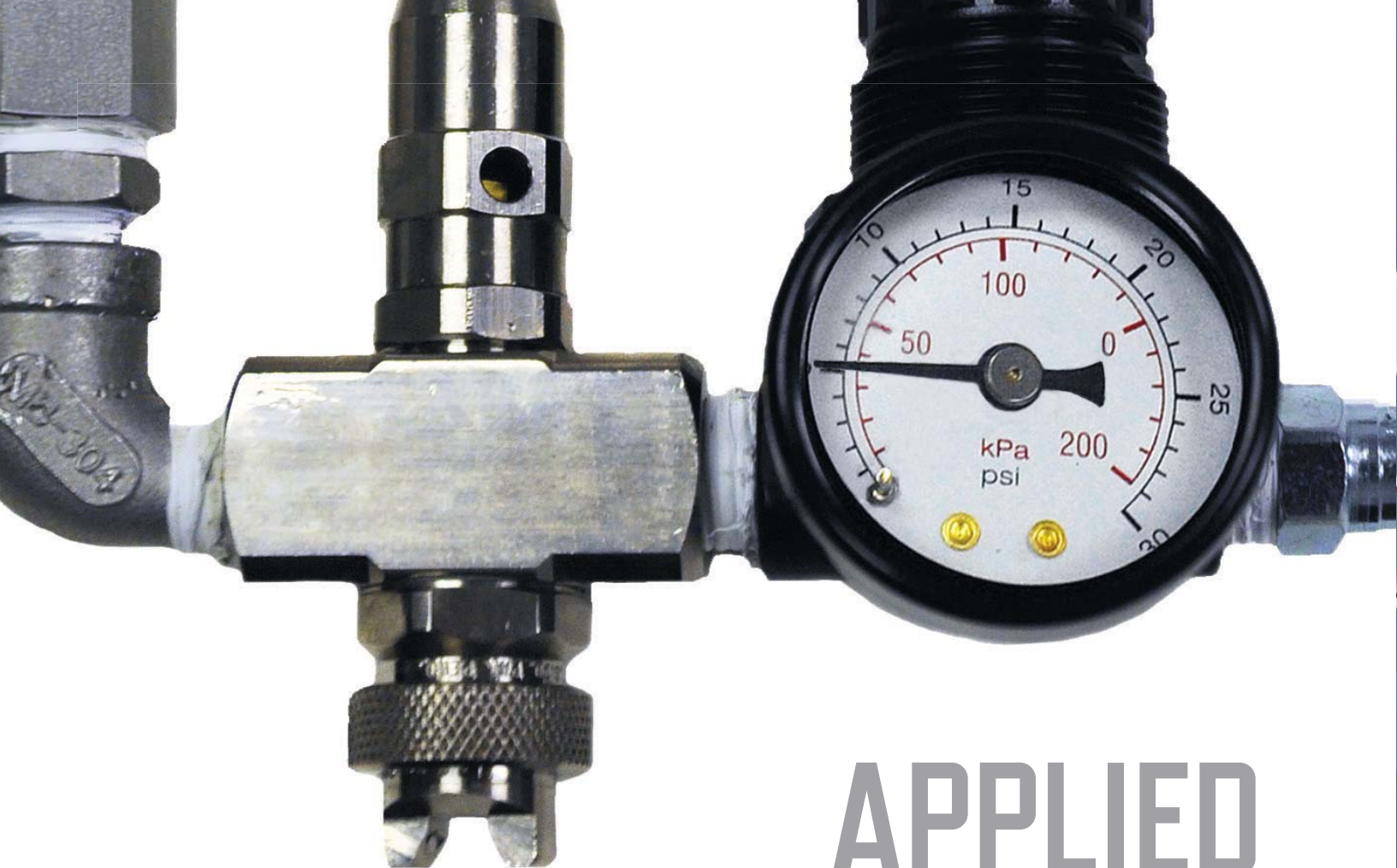
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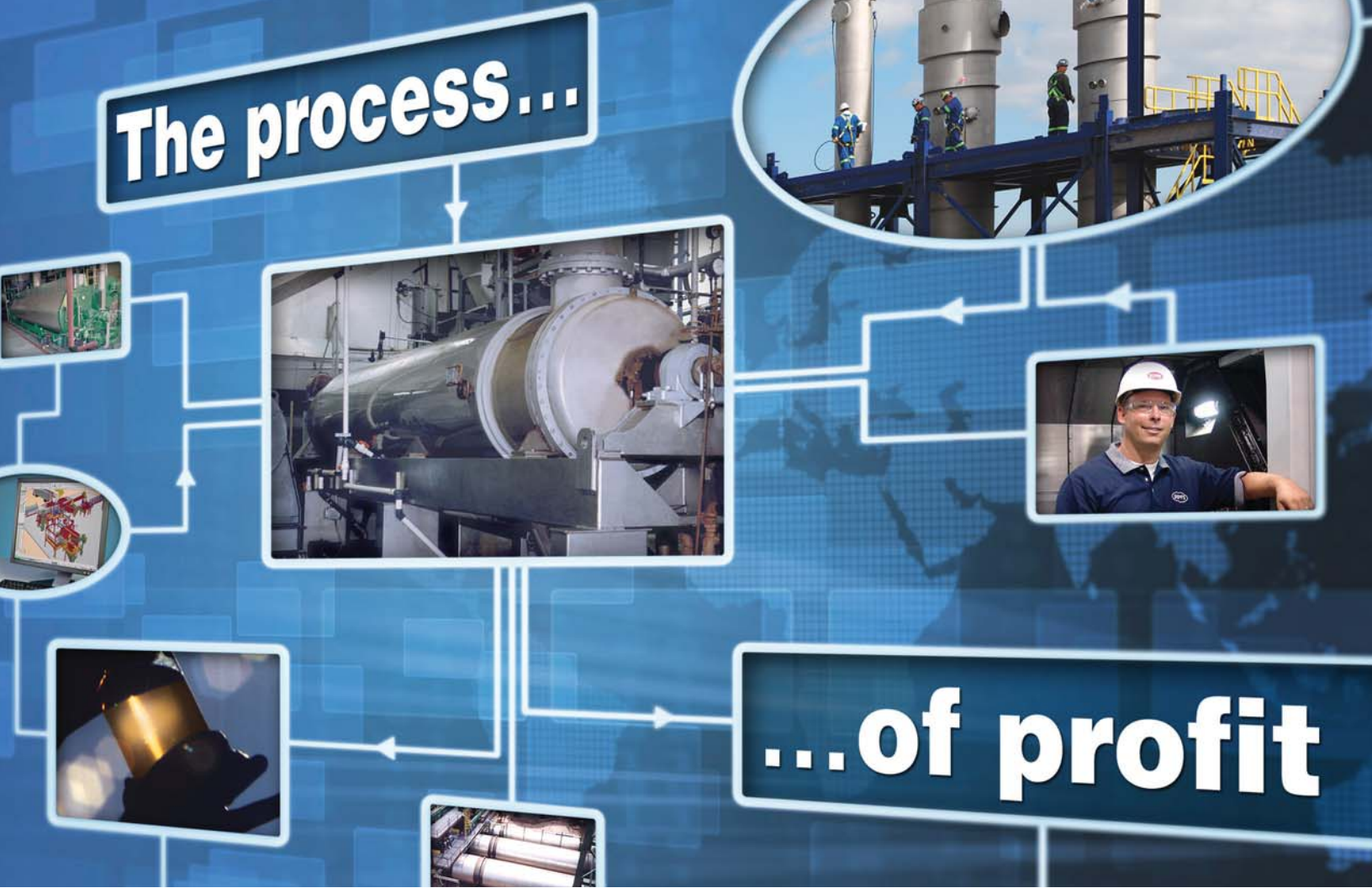


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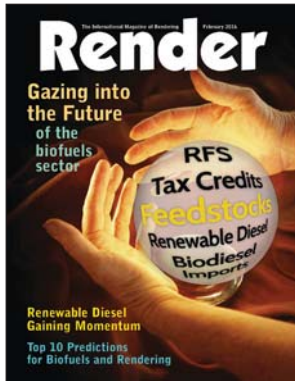


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## On the Cover

Attempting to predict where the biofuels industry is headed.

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*Render* (ISSN 0090-8932) is published bimonthly under the auspices of the National Renderers Association by Sierra Publishing, 1621 Glen Drive, Placerville, CA 95667 as a public service to the North American and global rendering industry. It is intended to provide a vehicle for exchange of ideas and information pertaining to the rendering and the associated industries. *Render* is distributed free of charge to qualified individuals upon written request. Publisher reserves the right to determine qualification. Periodical postage paid for at Camino, CA, and additional mailing offices.

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Printed in USA

POSTMASTER: Send address changes to  
Render, P.O. Box 1319, Camino, CA 95709-1319.

# Renderitorial

A new year always brings predictions for what is in store for the next 12 months. This issue of *Render* is no exception as there appear to be plenty of challenges and opportunities for renderers in 2016.

First up is the extension of federal tax credits for biodiesel, renewable diesel, and alternative fuel mixtures. Combine this with the Environmental Protection Agency finalizing Renewable Fuel Standard volumes for alternative fuels a month prior and this market for rendered fats and oils should stabilize this year. However, getting volumes pegged down for subsequent years beyond 2016 (2017 for biomass-based diesel) along with increased imports of biofuels from other countries, especially Argentina, will continue to make this arena challenging and a prime focus.

Renewable diesel use continues to gain popularity in government and private fleets, as described in this issue's Biofuels Bulletin on page 20. This is good news for renderers as most renewable diesel is produced using animal fats. However, again, increased imports of this fuel could hinder a rise in the use of rendered products and, subsequently, in product prices.

One of the biggest regulatory issues this year will be complying with the new Food Safety Modernization Act by September for most renderers (smaller firms have until 2017, and very small companies have until 2018). Add to that Occupational Safety and Health Administration activities and a new truck monitoring rule and 2016 will see a lot of government hub-bub in our daily working lives.

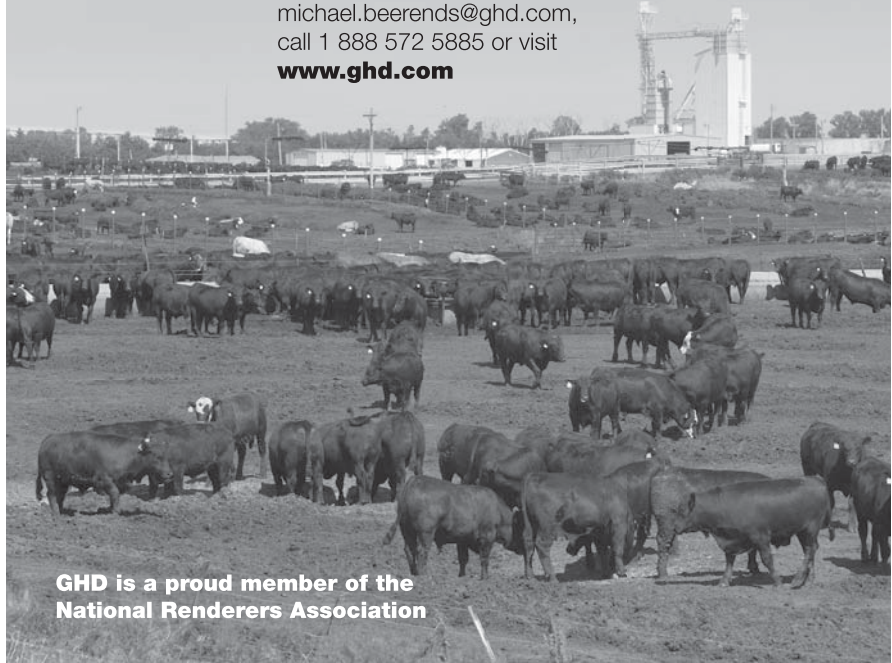
Livestock feed and pet food remain important customers for rendered products. Yet pressure from other feed ingredients, and the continued humanization of pets, will force the rendering industry to work diligently at educating all on the nutritional benefits of animal proteins and fats in feed.

These challenges are nothing new to renderers, who remain passionate about what they do and the products they produce. However, it will take a collaboration of industry leaders to ensure these hurdles can be easily cleared in 2016. **R**



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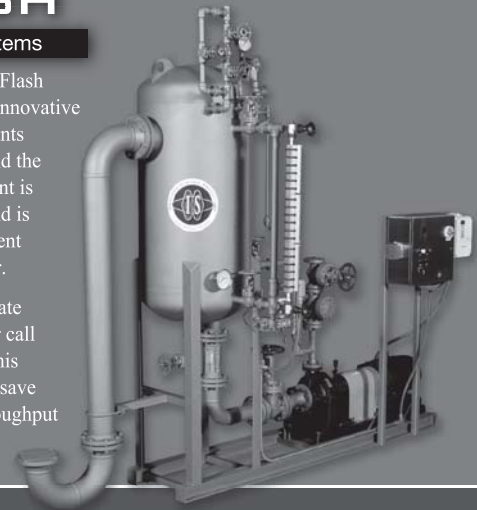
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## TPP in the USA

The nearly \$2-trillion Trans-Pacific Partnership (TPP), the 12-nation Pacific Rim trade accord, has taken on an identity far beyond simple tariff reductions and harmonization of trading rules. As President Barack Obama said in January during his final State of the Union message to Congress, “We forged a Trans-Pacific Partnership to open markets, and protect workers and the environment, and advance American leadership in Asia. It cuts 18,000 taxes on products made in America, which will then support more good jobs here in America. With TPP, China does not set the rules in that region, we do. You want to show our strength in this new century? Approve this agreement. Give us the tools to enforce it. It’s the right thing to do.”

However, is TPP, with all of its subtle and not-so-subtle economic and geopolitical implications, the “right thing to do”? Is it the miracle treaty supporters contend, or is it something much less? Such modern treaties are no longer straight trade agreements, but impact both international and domestic labor, environment, intellectual property, patent, and other arcane issues of law, as well as foreign policy. In the charged political atmosphere of Washington, DC – in a national election year during which the new president, the full House and a third of the Senate will be judged at the ballot box – will Congress approve TPP?

Broadly, the final TPP trade deal represents 40 percent of the world’s gross domestic product (GDP) and 26 percent of global trade. To date the largest trade deal the United States (US) has ever hammered out, TPP, if approved, would direct about 40 percent of US import/export activity. In economic terms, TPP countries are some of America’s biggest and fastest growing trading partners, representing north of \$1.5 trillion in goods and more than \$242 billion in services.

TPP began life 10 years ago when Brunei, Chile, New Zealand, and Singapore inked a trade deal to remove tariffs, focus on employment practices, harmonize competition, and deal with intellectual property treatment among the four nations. The United States took over expansion of the trade accord in 2009 when several of the current players expressed interest in achieving the same cooperative agreement.

After five years of intense and often frustrating negotiations, 12 nations have preliminarily approved TPP. In addition to the United States, negotiating nations include Japan, Malaysia, Vietnam, Singapore, Brunei, Australia, New Zealand, Canada, Mexico, Chile, and Peru. Note that China is not a participant. However, the treaty is written to accommodate countries wishing to join the accord at a later date. Thailand, the Philippines, and Indonesia said in January they most likely will join TPP.

The Pacific Rim is a region of the globe where economies and trade with the United States are growing rapidly. It is also a region where China has been the dominant customer for decades. However, Chinese across-the-board import reductions in recent years, along with an evolving Chinese

currency, provided the perfect opportunity for Malaysia, Vietnam, Singapore, Brunei, and others to create a more global marketplace to offset fluctuating Chinese demand.

What sits today in front of the heads of state of the 12 TPP nations is a more than 6,000-page document with 29 chapters covering agricultural products, sanitary/phytosanitary standards, telecommunications, financial services, market access, government-owned businesses, tobacco, intellectual property, automobiles, drugs, high-tech products, dispute resolution, and a host of other categories. To legally take effect, the treaty must be signed within two years by nations representing 85 percent of the TPP collective economy. At minimum, six countries must approve the final treaty, and two of those countries must be the United States and Japan if the 85 percent trigger is to be reached.

Thus far, only New Zealand has publicly said it will sign the final treaty; most others are going through legal reviews and legislative debates, but are effectively waiting to see if TPP is approved by the Japanese ambassador to the United States. Kenichiro Sasae told US officials in January that his government will vote to ratify TPP “as soon as possible,” a move to provide momentum to the treaty’s success and an incentive to the United States. A New Zealand official said it best: “Without the US, there is no TPP.”

Without TPP, some argue there is no Obama Asian economic legacy. For the president, while the engine of increased US exports helps accelerate domestic economic recovery, the geopolitical importance of TPP is a policy priority. Not only has Obama been politely but consistently held at arm’s length by major Asian governments, including Japan, Korea, and China, it is finally obvious to the administration that among Pacific Rim players, money talks.

With so many of the current and prospective TPP countries heavily dependent on China as a customer and supplier, Obama sees TPP as a means to wean these countries away from the world’s second largest communist government with the world’s second largest economy. Obama believes TPP gives these nations the wherewithal to strengthen and stabilize their domestic economies, and gain greater economic and political independence, in large part thanks to the capitalistic buying/selling power of the United States.

The long and winding road to formal US approval through the House and Senate began last fall. Trade promotion authority (TPA) stipulated a 60-day window for public input on TPP, and that period began October 5, 2015, when the White House released the agreed-to treaty. That window closed a week before the January 12, 2016, State of the Union address. Just days later, the US International Trade Commission (ITC) held three days of public hearings as part of a mandated economic review of the trade pact.

Agriculture and business interests told ITC of their general support for TPP during the three days of hearings, which looked at the overall impact of the treaty on the US economy,



but also examined impacts on specific economic sectors. The ITC review must be completed by May 15.

Implementing TPP “will be a vast improvement over the status quo,” said the witness for the National Cattlemen’s Beef Association. Ranchers-Cattlemen Action Legal Fund, known for its protectionist leanings, disagreed, saying the treaty will hurt the cattle and sheep industries by granting major cattle-producing countries increased access to US markets with profits from the “dumping of cattle, beef, and lamb” going to “meat packers, not independent growers.”

For rendering, TPP is less about tariff reductions than potential impact on non-tariff and technical barriers to selling US product in the region as many deals are caught up in sanitary/phytosanitary sleight of hand. The inclusion of Malaysia and the likely addition of Indonesia, Thailand, and the Philippines, also hold market promise for US-rendered products. At the same time, a rising tide lifts all boats so if US meat and poultry exports to the Pacific Rim increase, then domestic animal and bird production increases, signaling good things for rendering. This translates to an upturn in raw material inputs along with feed ingredient sales as domestic feed sales surge based on higher animal numbers necessary to meet increased export demand.

The American Soybean Association (ASA), one of the most aggressive overseas marketers of a US commodity, liked what it heard from Obama during the State of the Union, saying the “commitment of this administration to trade is something we’ve appreciated at every turn.” In a statement, ASA said, “Soy benefits from TPP...through an increase in direct export of soybeans and soy products to 11 nations which already

account for \$5.4 billion in annual soy exports. Second and perhaps most importantly, TPP will significantly expand meat exports...which drives demand for soy meal as a livestock feed here in the US.”

Cargill Inc. told ITC that TPP meets the global agribusiness giant’s three principles for a good trade agreement: It includes a balance of Latin American, Asian, and North American economies; it is comprehensive, covering all products and sectors; and it addresses traditional barriers to free trade with new solutions.

Yet, the question must be asked: Is American industry blinded by the notion that any new market, no matter how large, must automatically be a lucrative market? There are surprisingly few studies that quantify the positive economic impact of TPP on various economies. Technology writer Glyn Moody reported on [www.techdirt.com](http://www.techdirt.com) that in 2015, the US Department of Agriculture (USDA) commissioned a study to model TPP. This report concluded that for highly sophisticated economies, including the United States and Australia, there may not be the cash-out expected. The conclusion of the USDA study, Moody writes, was “TPP is projected to have no measureable impacts on real GDP.” Now, the USDA study only looked at removal of traditional tariffs and TPP is so much broader than that, the mother of all new “generational” trade pacts, one that includes not only economic implications, but also policy and legal implications as well.

Moody also reported on a World Bank study that takes into account “all aspects of the proposed deal.”

*Continued on page 9*

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## EPA Violated Law when Promoting its Water Rule

The Environmental Protection Agency (EPA) engaged in “covert propaganda” and violated federal law when it used social media for unauthorized publicity or propaganda purposes to gain support for its waters of the United States (WOTUS) rule, according to a report released by the US Government Accountability Office (GAO). The WOTUS rule extends federal jurisdiction to activities affecting small previously unregulated waterways, drainage areas, wetlands, and related upland areas. The rule provides the basis for federal regulation of various local activities, such as land development and agriculture.

Federal agencies are allowed to promote their own policies but may not engage in propaganda, defined as covert activity intended to influence the American public. They also are not allowed to use federal resources to conduct grass-roots lobbying by urging the public to contact Congress to take a certain kind of action on pending legislation.

“Specifically, EPA violated the publicity or propaganda prohibition through its use of a platform known as Thunderclap that allows a single message to be shared across multiple Facebook, Twitter, and Tumblr accounts at the same time,” the report states. “EPA engaged in covert propaganda when the agency did not identify EPA’s role as the creator of the Thunderclap message to the target audience.

“EPA also violated anti-lobbying provisions though its hyperlinks to certain external web pages in an EPA blog post,”

the report continues. “Both of the external web pages led to appeals to the public to contact Congress in support of the WOTUS rule, which, taken in context, constituted appeals to contact Congress in opposition to pending legislation. EPA associated itself with these messages through its decision to include the hyperlinks in its blog post.”

EPA disputed the finding, saying in a statement that “we use social media tools just like all organizations to stay connected and inform people across the country about our activities.”

The GAO report can be found at [www.gao.gov/assets/680/674163.pdf](http://www.gao.gov/assets/680/674163.pdf).

Meanwhile, Congress officially voted in mid-January to restrict EPA from enforcing its WOTUS rule. The House of Representatives took steps last year to overturn the rule completely, but a vote in the Senate fell just shy of the majority needed.

This time, Senate Joint Resolution 22 by Senator Joni Ernst (R-IA) cleared the 60-vote majority to overcome a filibuster and was approved by the House on the same day by a vote of 253-166. Twelve Democrats joined their Republican colleagues in the House to pass the measure. President Barack Obama subsequently vetoed the measure. Although the resolution passed both chambers of Congress, it failed to receive the two-thirds majority that is necessary to override the president’s veto. **R**

## West Coast Proves Successful for Biodiesel

Nearly a decade ago, California embarked upon a landmark climate initiative commonly referred to as AB (Assembly Bill) 32. The law requires greenhouse gas (GHG) emission reductions to 1990 levels by 2020 – a reduction of approximately 15 percent below expected emissions in a “business as usual” scenario. AB 32 includes a number of ambitious climate programs that call for reductions in every sector of the economy. The state’s low carbon fuel standard (LCFS) focuses on transportation.

“Over the past four years of the LCFS, the California biomass-based diesel market has grown from 10 million to 200 million gallons,” said Don Scott, National Biodiesel Board (NBB) director of sustainability. “This shows how successful carbon policies can be at spurring growth in clean fuels like biodiesel.”

In part because of the success demonstrated in California, the Oregon Department of Environmental Quality Commission voted unanimously in December 2015 to finalize the state’s Clean Fuels Program to implement a comprehensive low carbon fuels policy for transportation. The policy is modeled closely after the California LCFS and will reduce GHG emissions 10 percent by 2025.

Rather than conducting its own lifecycle analysis, Oregon will generally use the values created in California, which have concluded that biodiesel decreases GHG emissions by 50 to 80 percent. Oregon’s announcement leaves Washington as the only state on the West Coast without a program to reduce GHG emissions. British Columbia, Canada, has also adopted low carbon transportation policies, translating to approximately five billion gallons of diesel that are now under low carbon fuel policies on the West Coast.

NBB has concentrated significant resources over the past eight years to ensure biodiesel participates in these programs. The technical data developed by NBB played a significant role in the determinations by the California Air Resources Board confirming that biodiesel reduces GHG emissions by 50 to 80 percent compared to petroleum diesel.

“Quantifying the precise carbon intensity of fuel from varying feedstocks, geographies, and process technologies does not happen without significant investment in data and scientific analysis,” Scott said. “Lifecycle assessment is a complex undertaking that required participation from diverse stakeholders such as the California Biodiesel Alliance, the environmental community, and NBB members.” **R**

“The model simulations suggest that by 2030, the TPP will raise member country GDP by 0.4-10 percent, and by 1.1 percent on a GDP-weighted average,” he reported. But if you drill down on the “0.4-10 percent” benefit range, you find the US benefit is 0.4 percent, Australia’s is 0.7 percent, Canada’s is 1.2 percent, Japan’s is 2.7 percent, and the less developed economy of Vietnam is the big winner at a benefit of 10 percent increase in GDP. Concludes Moody: “The fact that two econometric models of TPP’s effects, both from highly respected institutions, predict that TPP will produce vanishingly small economic benefits for key countries, including the US, could explain why there are so few studies. A cynic might suggest that others were started, but generated such inconveniently awful outcomes that they were quietly dropped and never published.”

Moody’s cynicism notwithstanding, and granted the techdirt.com report is an extreme take on a highly complex issue, TPP remains unique in the annals of trade treaties. However, it is not a stretch to say that any agreement removing tariffs, lowering tariffs, harmonizing trading rules, and, to the extent possible, leveling a monster regional economic playing field – along with the legal/environment/labor considerations – is logically a good thing for anyone with anything to sell in the region.

The president had hoped all of this would be behind him by now, that TPP would be securely locked in the box that holds his legacy of achievements. He had told the Office of the US Trade Representative (USTR) to complete its job by mid-2015, the goal being a finalized agreement approved by Congress, signed by the president, and in force, at least for the United States, by the end of December. That obviously did not happen. In order to get TPP across the finish line, the White House needed TPA, which is effectively legal permission from Congress for the White House to negotiate free trade deals meeting the specific requirements of TPA, with Congress giving up the right to amend the finished package when it comes to the House and Senate for formal approval.

Ironically, the biggest political roadblock to Obama’s push for TPA, and his current push for TPP approval, are the complaints and criticisms of congressional Democrats, spurred on by labor unions and environmental groups. And the longer TPP pends in the public arena, Republican critics are crossing the aisle to join in opposing the deal. When the president referenced TPP during the State of the Union, the reception by the assembled members was, as one reporter noted, “lukewarm at best.”

Early on in the battle for TPA, the chief criticism was that the treaty was negotiated “in secret.” That allegation translated to Democrat critics – Representative Rosa DeLauro (D-CT) among the most vocal – venting their frustration with the White House for not consulting with them before the talks began, particularly on US jobs and environmental protections. These same critics were unwilling to give Obama TPA authority – as all presidents have enjoyed since Ronald Reagan – because they did not want to surrender their ability to rewrite the agreement through amendments during floor consideration. It is fair to say the White House prevailed on TPA only because business and agriculture provided the necessary lobbying

muscle that gained the measure broad bipartisan support.

“The administration has put big business first; workers, communities, and small businesses last,” said DeLauro, echoing the sentiments of her party’s TPP critics.

House Speaker Paul Ryan (R-WI) and Senate Majority Leader Mitch McConnell (R-KY) are publicly noncommittal, paying lip service to “reading the treaty, learning the details, talking to constituents and their colleagues before forming a position.”

Senator Orrin Hatch (R-UT), chair of the Senate Finance Committee that must shepherd TPP through choppy Senate waters, is less sanguine with the deal, saying, “While the details are still emerging, unfortunately, I am afraid this deal appears to fall woefully short...the U.S. should not settle for a mediocre deal that fails to set high-standard trade rules in the Asia-Pacific region for years to come.”

House Ways and Means Committee Chair Kevin Brady (R-TX) has adopted a go-slow approach to TPP approval as he wrestles with two specific objections to the trade deal. The first is tucked into the intellectual property chapter of TPP and deals with medicines known as biologics. The other is a so-called “carve-out” from health control requirements for processed tobacco products within the investor-state dispute resolution section. Hatch is also concerned about the biologics issue and Brady has told the White House it needs to address both issues before the treaty comes to the House floor.

The election year politics surrounding TPP are also increasingly problematic. Democrats complain TPP will cost US jobs and undermine environmental protections; this is a criticism almost automatically leveled at every trade accord into which the United States has entered. Conservative Republicans, who loathe contributing to the Obama legacy, are openly skeptical of the deal. Democrat presidential hopeful Senator Bernie Sanders (D-VT) does not like TPP for all of his publicly stated “progressive” and anti-one percent reasons. Former Secretary of State Hillary Clinton, who in her last job negotiated parts of TPP and called the deal a “gold standard” while still at the State Department, now says the treaty does not pass muster with her.

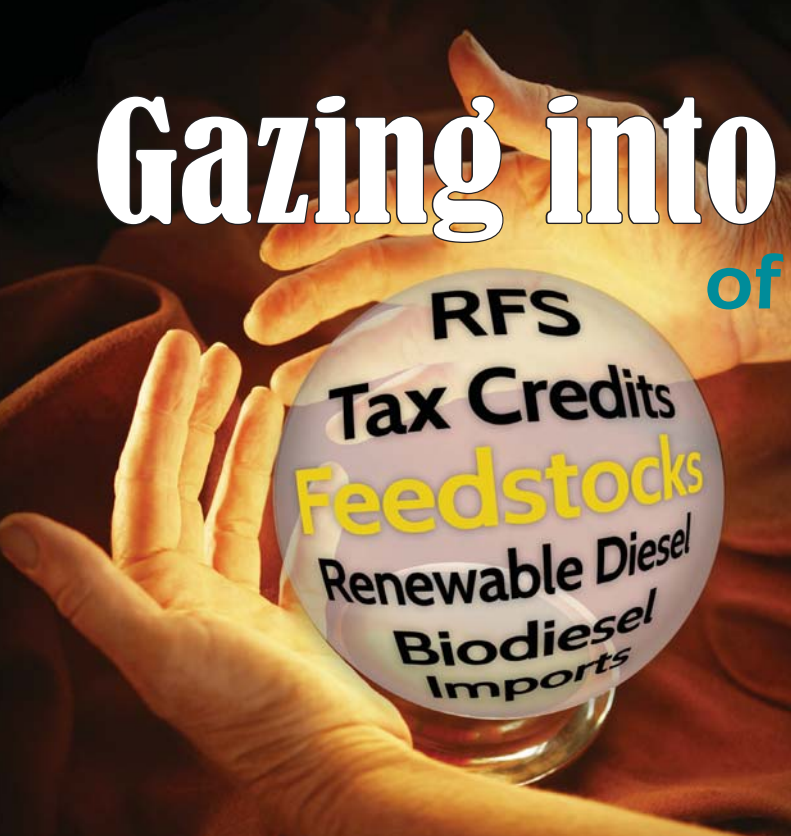
Those Republican presidential wannabes still vying for the GOP nomination are all over the map on TPP. Donald Trump calls it a “horrible deal,” and is joined by Senator Rand Paul (R-KY) and New Jersey Governor Chris Christie. Former Florida Governor Jeb Bush, Senator Ted Cruz (R-TX), Senator Marco Rubio (R-FL), Carly Fiorina, Ohio Governor John Kasich, and Dr. Ben Carson all support TPP, some with “reservations.”

Meanwhile, Darci Vetter, USTR special agriculture negotiator, told the American Farm Bureau Federation that exporters as well as farmers and ranchers will take a financial hit if TPP is not approved in a timely manner, meaning this year. She warned that until TPP is approved by Congress, any of the 12 nations who have agreed to the treaty can cut “preferential access” deals with each other.

“On day one when TPP takes effect, we’re back on a level playing field with Australia,” Vetter said of regional beef advantages, explaining similar market fairness will exist for dairy in Vietnam. “Every agricultural product is liberalized in some way” in the treaty, she noted.

*Continued on page 19*

# Gazing into the Future of the biofuels sector



By Tina Caparella

*Editor's note – Information in this article was also provided by Dave Elsenbast of Renewable Energy Group.*

**T**he United States (US) biomass-based diesel industry got some good news as 2015 was coming to a close – Renewable Fuel Standard (RFS) volumes were finalized and federal alternative fuel tax credits were renewed for two years. While these steps are much welcome and needed for the promotion of biodiesel and renewable diesel, there are still challenges ahead to ensure these renewable fuels continue to grow.

Production of biomass-based diesel was approximately 1.8 billion gallons in 2015, a slight increase from 1.75 billion gallons in 2014 (chart 1). Advanced biofuel production adds value to many industries such as rendering, fuel marketing, transportation, and agriculture. Biomass-based diesel is a proven advanced biofuel and is poised for sustained growth. It supports US energy security and diversity, food security, and environmental stewardship.

The regulatory and policy climate has improved but still needs some clarity for the future. Late last year, the Environmental Protection Agency (EPA) finalized RFS volumes for renewable fuel use in the nation's diesel pool for 2014, 2015, and 2016, and for biomass-based diesel for 2014 to 2017 (table 1). EPA's final rule steadily increases the RFS for biomass-based diesel, which includes biodiesel, from 1.63 billion gallons in 2014 to 1.73 billion gallons in 2015, 1.9 billion gallons in 2016, and 2.0 billion gallons in 2017. The RFS volume set for advanced biofuel is 2.67 billion gallons in 2014, 2.88 billion gallons in 2015, and 3.61 billion gallons in 2016. These volumes are significantly higher than EPA's original proposal of 1.28 billion gallons for biomass-based diesel in late 2013 and above levels the agency re-proposed in June 2015.

The final 2016 volumes for cellulosic biofuel — the fuel with the lowest carbon emissions — is 230 million gallons, seven times more than the market produced in 2014.

Established by Congress, the RFS requires EPA to set annual volume requirements for four categories of biofuels. The final rule considered more than 670,000 public comments and relied on the latest, most accurate data available. EPA finalized 2014 and 2015 volumes at levels that reflect the actual amount of domestic biofuel used in those years, and volumes for 2016 (and 2017 for biomass-based diesel) that represent significant growth over historical levels.

While EPA's decision is a step in the right direction, both the rendering and biofuels industries supported slightly higher RFS levels to help continue growing significant demand for biodiesel and renewable diesel, both of which use rendered fats and oils as feedstocks. Renderers supply 22 percent of all biodiesel feedstock.

EPA's decision culminated over three years of work by the National Renderers Association (NRA) and others in the biofuel sector to encourage EPA to increase RFS levels. NRA submitted regulatory comments twice to EPA, advocated on Capitol Hill during its congressional fly-ins, directly lobbied Congress, and coordinated closely with the National Biodiesel Board (NBB). EPA increased the RFS by over two billion gallons from its original proposal over the four-year period.

## Tax Credits Extended

The second gift the industry received at the close of 2015 was the passage of the alternative fuel tax credits that had expired at the end of 2014. A \$1.1-trillion spending bill signed by President Barack Obama in mid-December retroactively extended the \$1-per-gallon blender's tax credit for biodiesel and renewable diesel and the \$0.50-per-gallon alternative fuel mixture credit from January 1, 2015, to December 31, 2016. NRA supported the two-year measure and will continue to work toward making these tax credits permanent along with the biodiesel industry. There is also a push by biodiesel producers to restructure the blender's tax credit to a producer's credit, a goal that NBB will work toward this year.

## The Challenges Ahead

Many positive factors have kept the advanced biofuel industry moving forward. Market opportunity is broad for biomass-based diesel and there is ample domestic production infrastructure in place (chart 2). In 2014, the United States led the world in biodiesel production, followed by Germany, Brazil, Indonesia, and Argentina. The latest figures from the US Department of Energy show worldwide biodiesel production grew about 13 percent from 2013 to 2014.

State and local policy supportive of biomass-based diesel remains generally positive. For example, New York City

currently has a two percent biodiesel blend requirement for all heating oil sold and higher usage requirements are under consideration. In addition, Minnesota has a requirement that all diesel fuel be blended with five percent biodiesel year-round and 10 percent in the summer months. Also, California and Oregon are moving forward with their low carbon fuel standard (LCFS) programs, although carbon intensity has been adjusted to rebalance vegetable oils with animal fats. This will lower some vegetable oil carbon intensity values while increasing some animal and waste fat values, and should have vegetable oils playing a larger role in LCFS compliance than past policy would have suggested. Moreover, despite court confirmation of LCFS policy, many expect lawsuits to persist as similar programs spread throughout the country. This clouds the regulatory outlook as this sort of program is developed at the state level.

**Table 1. Final renewable fuel volumes (billion gallons)**

	2014	2015	2016	2017
Cellulosic biofuel	0.033	0.123	0.230	n/a
Biomass-based diesel	1.630	1.730	1.900	2.00
Advanced biofuel	2.670	2.880	3.610	n/a
Renewable fuel	16.280	16.930	18.110	n/a

Note: Units for all volumes are ethanol-equivalent except for biomass-based diesel volumes, which are expressed as physical gallons.

The advanced biofuel industry is impacted by the falling crude oil prices, which pressures biofuel market prices. With oil prices at the lowest since 2003, the energy market is weak and there is ample supply. However, diesel demand is projected to increase four percent next year so demand and support for biomass-based diesel is encouraging. That said, periods of mild weather this winter have temporarily decreased demand in the Northeast heating oil market. Diesel prices are following a similar trend line as crude oil.

The RFS has been set for biomass-based diesel until 2017, with EPA projecting to propose volumes for 2018 by this summer. While indicators are that the renewable fuels industry will ramp up this year thanks to the set RFS volumes and extended tax credits, there is still much work ahead to ensure opportunities in 2017 and beyond.

A big challenge for US biodiesel producers this year will be imports, which are projected to double as suppliers in Argentina and elsewhere boost volumes after the US government issued clearer rules for blending tax credits and volumes, according to Argus Media Ltd., a provider of data on energy and related commodity markets. Already facing pressure from partially subsidized imports, US producers will be further squeezed in 2016 from even cheaper foreign product entering the market. The recent devaluation of the Argentine peso by 25 percent will also promote biodiesel's competitiveness on US shores. Argentine supply already benefits from its own government subsidies.

Net biodiesel imports will continue to grow relative to domestic supply moving forward, with total imports expected to increase 68 percent from 429.2 million gallons in 2015 to 720.5 million gallons this year,

according to the Energy Information Administration (EIA). With mandated biodiesel blending volumes set at 1.73 billion gallons in 2015 and 1.9 billion gallons for 2016 under the RFS, imports as a percentage of implied US supply are poised to increase from 25 percent last year to 38 percent this year.

Foreign suppliers will also benefit from the \$1-per-gallon blender's tax credit by extension, as prices increase to adjust for the government subsidy. The restoration of the credit will also pressure renewable identification number (RIN) prices.

The US biodiesel industry was strained by a large volume of imports in 2015 following EPA's decision last January to approve Argentine product to qualify for biodiesel RINs under the RFS. Biodiesel imports last year were at their highest level in six years, with Argentine biodiesel accounting for nearly 50 percent of total imports. In all, imported and foreign-produced credits made up 22 percent of biodiesel RINs generated in 2015, the highest proportion since 2010.

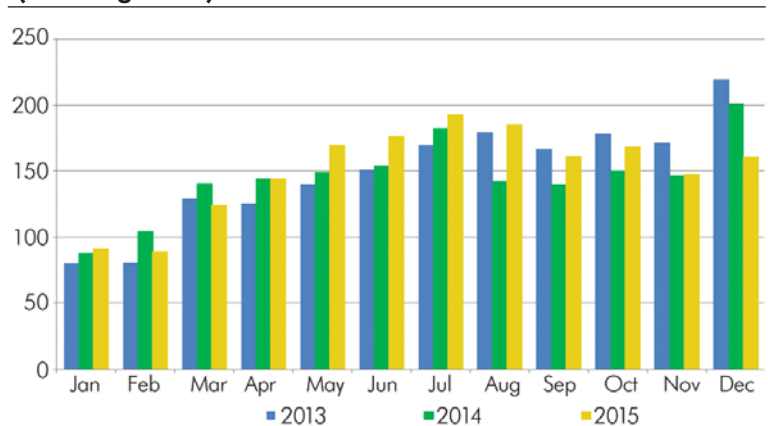
### Feedstock Outlook

Biomass-based diesel continues to be a significant and reliable source of demand for rendered fats and oils. The outlook for soybean, palm, and canola oil production is strong and may limit upside on vegetable oil pricing. Last year saw another record soybean crop with palm oil production also continuing at record levels. A record corn crop is decreasing the market price on corn, giving the animal feed industry options for cheap calories in diet formulations. A very strong US dollar is making exports of fats and oils more challenging so a downward export trend may persist. Cheap energy also limits the prices biofuel producers are able to pay for feedstock. These factors, along with ample supply of vegetable oil, could keep rendered fats under price pressure.

Uncertainty and market volatility are no strangers to the advanced biofuel industry. This has led to feedstock diversification among most producers. Biomass-based diesel is among the most tested fuel in the marketplace. ASTM International and the industry have been strategic partners in research and investments of quality standards for biodiesel. This dedication to quality has helped to ensure that biodiesel is here to stay.

*Continued on page 12*

**Chart 1. Biomass-based diesel production, 2013-2015 (million gallons)**



Source: EPA moderated transaction system.

### Rendering's Piece of the Puzzle

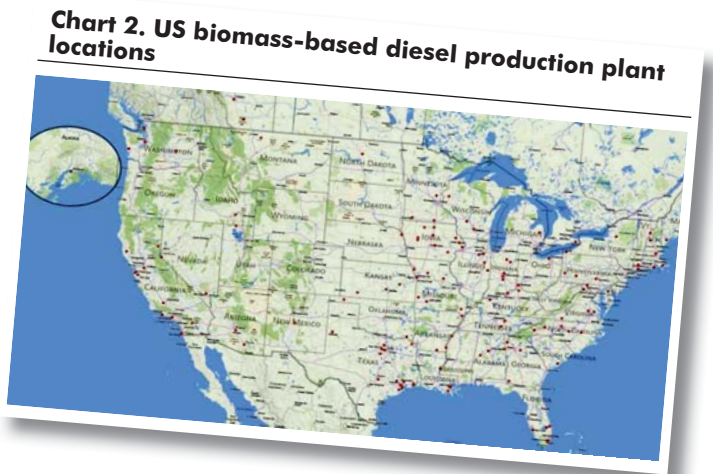
Rendered fats and oils make up 22 percent of US biodiesel feedstocks and that should continue as biodiesel producers make as much fuel as possible to meet the RFS volumes and take advantage of tax credits. This demand should help raise currently low fat and oil prices but could also increase thefts of used cooking oil. However, the expected increase in biodiesel imports this year could keep rendered fat prices lower than they otherwise would climb had the borders been closed.

Some renderers are reporting an uptick in the use of their feedstocks in renewable diesel from large fuel and energy companies to make fuel for meeting EPA renewable fuel requirements, rather than purchasing biodiesel and blending for compliance needs. In addition, with increases in government and private fleet usage and original equipment manufacturer support of renewable diesel (see Biofuels Bulletin on page 20), this market may provide an opportunity in the challenging biofuels arena.

### Outlook

So what is next in 2016? History has proven over and over again that the biodiesel industry is resilient and will keep growing in new and existing markets, utilizing multiple feedstocks, and producing quality products. Biomass-based diesel will continue to support jobs and economic development and innovation.

EIA forecasts that drivers will consume 17 percent more diesel fuel by 2023 and 26 percent more by 2040. With 44



new clean diesel car, truck, and sport utility models launched in the 2014 model year, automotive industry experts predict that consumers will have more than 58 diesel vehicle models to choose from in North America by 2017. Biomass-based diesel's future growth looks even more promising with progress being made toward addressing climate change, such as the recent 2015 United Nations Climate Change Conference in Paris, France. The industry can help improve petroleum diesel's greenhouse gas emissions profile as countries and local governing entities expand policy in response to this issue.

Consumer acceptance and support from partner industries like rendering will remain important for future growth of the renewable fuels industries. The biomass-based diesel industry continues to be tested and has proven it is here to stay. **R**

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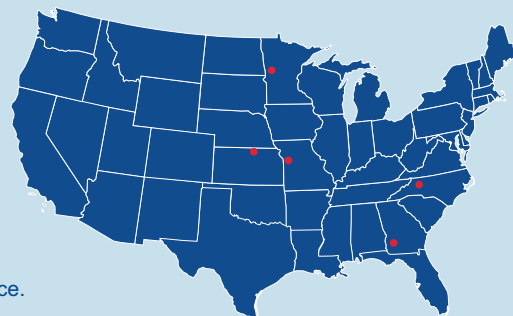
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# TOP 10

# Biofuels Predictions for 2016

By Jim Lane, Biofuels Digest

*Biofuels Digest* dusted off its crystal ball, peered into Tomorrowland, and rolled the dice to make its top 10 predictions for biofuels and the bioeconomy in 2016.

- 1. Merger Mania** – The roster of biofuel companies will become smaller, but the companies themselves will become bigger. A large wave of consolidation is expected in biodiesel as companies like Renewable Energy Group use strong balance sheets, supply chains, and technology portfolios to build up production capacity by joining with smaller plants that can be expanded and modernized. A rise in biobased multinationals is also likely.
- 2. RINs and Cellulosic Waiver Credits** – There will be pressure in the United States (US) to expand the definition of renewable identification numbers (RINs) and grant more feedstocks access to the Renewable Fuel Standard's system of carbon credits. In addition, that there will be more emphasis on reforming the cellulosic waiver credit, in these times of low oil prices, to drive the cellulosic fuels market.
- 3. Ethanol** – Expect to see more acceptance in the United States of 15 percent (E15) to 85 percent ethanol fuel. Some of that will take the form of more E15-compatible vehicles from manufacturers while other efforts will be expanded focus on higher-blend ethanol pumps. At least one player in the cellulosic fuels movement will make a move to establish a cellulosic-branded ethanol to begin building a market for this fuel to avoid a ruinous head-to-head competition with starch-based ethanol.
- 4. Lignin** – After years of searching, a depolymerization technology is likely to emerge for lignin that gives the promise of unlocking higher value in some 30 percent of biomass that is usually burned for system energy. "You can make anything out of lignin except money," goes the old saying, but it looks like that will join "nothing will replace the horse" on the scrap-heap of history.
- 5. Changing of the Guard** – After a half-decade of relative stability at the top tiers of companies, a wave of senior executive officer changes is expected. Some will switch to other roles within the industry while others will move into new sectors and positions as companies focus more on leaders who can build capital stocks and less on who can build company teams and corporate culture. Elsewhere in company staffing arrangements will be more emphasis on finding licensing and partnership opportunities for molecules and processing technologies.
- 6. Oil Prices** – There should be a bottoming of oil prices as demand picks up in Asia and the developing world, but there will continue to be a merging of Brent and West Texas Intermediate crude prices as the ban on US exports ends and fuels and prices begin to reach Asian markets. Anticipate the price per barrel to recover to \$45 by the end of 2016, though the movement is not likely to begin until late in the year.
- 7. India** – Expect to see more emphasis than ever on India for renewable fuels as a successor to interest that has been focused on China and Brazil to date. The focus will be on adding capacity to existing molasses ethanol and biodiesel plants, especially through bolt-on technologies that enable the production of higher-value molecules and the tapping of lower-cost feedstocks.
- 8. Hemp** – With a growing wave of marijuana legalization in the United States comes the re-emergence of hemp as a biobased feedstock. *Biofuels Digest* sees it as the feedstock of the year in terms of expanded interest on the part of growers, especially in the Pacific Northwest. As one wag put it, "give away the fuels, sell the smoke," which is to say there might be interesting possibilities for hemp residues that offer a second market to growers now focused on personal recreational markets. Yet the potential is primarily focused on traditional (that is, non-marijuana) hemp varieties and markets for hemp's traditional attributes, for example, as a feedstock for biobased plastics aimed at lightening the weight of vehicles.
- 9. Fuels versus Chemicals, Feeds versus Fuels** – In this era of low oil prices, many renewable chemical plays will struggle to compete with \$35 oil focusing not so much on financial investors looking for quick returns, but for strategic investors with a residue problem that turns into a biobased feedstock. Fuels have more protection from the market in the form of carbon-oriented mandates so look to chemical players to work hard on qualifying for RINs, as was alluded to in prediction number 2. However, all players will look at the protein and feed markets to provide protection from low energy prices. As ethanol producers get more efficient at their production economics, they are going to be more effective at marketing distillers dried grains and balancing low energy prices with stable feed prices. Open-pond algae will go almost entirely that way, with fuels as a kicker.
- 10. Soy Soars as Biodiesel Rocks** – There has been a changing of the guard in Argentina and the new president has lifted all currency and other restrictions on exporting soybeans and soy oil. Couple that with Argentine biodiesel now qualifying for US RINs and this is a strong export surge story. Add in that Indian palm oil imports are expected to rise marginally amid concerns about impacts from El Niño on palm oil production and there could be more triggers for rising soy prices. India and China are typically the main importing countries impacting demand and, therefore, prices for palm oil. Increased domestic demand for biodiesel in both Malaysia and Indonesia will also help to support prices in the coming year. **R**



# ...and **TOP 10** Forces Impacting Renderers

By David L. Meeker, PhD, MBA, Senior Vice President, Scientific Services, National Renderers Association

Regulation will continue to exert stress and impose change in the North American rendering industry. The Food Safety Modernization Act (FSMA) has been discussed for several years now, but this will be a watershed year. Thus, FSMA leads the list of the top 10 forces impacting rendering in 2016.

- 1. FSMA Implementation** – Firms with more than 500 employees will be required to have food safety plans in place this year, including hazard analysis, mitigation of significant hazards, corrective actions, etc. Smaller firms officially have until September 2017 to comply, but customer expectations will likely require all renderers that sell feed and pet food ingredients to have these actions in place by late this year.
- 2. FSMA Training and Education** – The National Renderers Association (NRA) and other trade organizations are working hard to build and deliver educational programs for members so all are well equipped to meet FSMA requirements. Opportunities for renderers to learn the components of the regulation will be offered online and at NRA's annual *North American Rendering Industry Code of Practice* training in Denver, Colorado, in June.
- 3. FSMA-related Research and Negotiations** – The regulation includes requirements for food and feed production firms to engage in "supply chain management." This means that manufacturers must have a program that verifies what their suppliers are doing to mitigate hazards. For example, a pet food manufacturer may try to require a renderer to implement certain controls or to guarantee *Salmonella*-free ingredients. Yet without sufficient knowledge of the effectiveness of controls, or the best strategy and location to apply controls, such guarantees cannot be made. The Fats and Proteins Research Foundation (FPRF) is working on research this year in partnership with the pet food industry to sort out these questions.
- 4. Measuring Sustainability** – NRA's new Sustainability Committee will identify rendering sustainability benchmarks. Once these metrics are identified and measures can be made, NRA member companies can choose to use these data in discussions with customers and supply chain participants to demonstrate the sustainability of rendered products and rendering company services. NRA plans to develop implementation kits, talking points, and other communications tools for members to use.
- 5. Preventing Raw Material Diversion** – One of the more popular new current events is the emphasis on reducing food waste. In addressing this serious problem, well-meaning policymakers are proposing programs that may unintentionally affect rendering. Sustainability will become the industry's main argument to prevent the diversion of meat and animal-based raw materials from rendering to other less sustainable and subsidized programs such as composting or anaerobic digestion. Policymakers need to be aware that animal products going to rendering are already handled in the best possible manner. It is alright to divert food waste away from landfills, but to divert anything away from rendering to alternative methods is a big step backward.
- 6. Promoting Valuable Pet Food Ingredients** – Sustainability should also be the rendering industry's main argument against the trend of using only human-grade food as feed ingredients for dogs and cats. The rendering industry needs to educate pet food manufacturers and consumers about the many benefits of using animal by-products in pet food.
- 7. Sustainability in the Community** – Promoting rendering's sustainability could also help when permits to operate are opposed or the industry is unfairly disparaged in local communities. There will continue to be opposition to rendering in some areas so the industry must convince lawmakers and neighbors of the benefits. Rendering enhances the sustainability of the food system and benefits communities where plants are located with jobs and taxes.
- 8. Importance of Research** – Research is the lifeblood of any progressing industry as new knowledge is key to meeting the latest challenges, defeating old nemeses, and finding new markets. This year may be the year when the entire rendering industry pulls together to invest in solutions. It may also be the year when prior research investments pay off in more visible fashion. Since rendered product consistency and quality expectations from increasingly discerning customers are becoming challenging, FPRF investments in new ways to prevent oxidation of rendered products will shine. Projects on improved processing methods and operations show promise as do practical useful data to validate cooking as the main hazard mitigation.
- 9. The Natural/Organic/Holistic Effect** – These new trends will continue to influence animal food manufacturing, drawing attention to all kinds of possible hazards. The rendering industry will need answers for many new questions regarding low levels of chemicals, genetically modified organisms, foreign matter, and any number of unpronounceable scary things consumers are skeptical of. Much of this will be more public relations-oriented than FSMA-centered, but will still require knowledge and data to combat.
- 10. Prices** – Low commodity and feed prices will continue to spur increased livestock and poultry production while the highly-valued United States dollar will challenge exports. The most important sustainability factor will be to survive the increased volumes and lower prices until economics improve.

Challenging times make it all the more important for the rendering industry to work together. **R**

# A Proud Industry Educates

By Tina Caparella

**R**enderers “take something that nobody wants and turn it into something that everyone wants,” said Dr. Ken Wilson, Simmons Feed Ingredients, at the International Rendering Symposium held at the International Production and Processing Expo (IPPE) in Atlanta, Georgia, in late January. “We love what we get to do; it’s an awesome experience,” he added. The annual event is sponsored by the National Renderers Association (NRA) and geared toward educating some of the 30,000 members of the poultry, meat, and feed industries who attend the IPPE about rendering.

Simmons went on to explain that 50 percent of pet foods on the market contain animal proteins, making it an important customer for rendered products. He pointed out that the list of specialty ingredients in pet food has doubled in the last five years. In addition, the pet food industry has evolved in just the past 18 months.

“How much has rendering changed in that time?” Simmons asked. One area he said renderers need to focus on is customer perception and educating those who talk negatively about the industry or its processes.

“There is nothing ‘crude’ about our product,” he stated. Simmons also noted that variation of animal proteins and fats is of concern to pet food manufacturers and that there are opportunities for rendered proteins to be a source of omega fatty acids, amino acids, and vitamins.

James Emerson, Pilgrims, shared with attendees the real guts of a rendering plant by giving a virtual tour of its processes. He showed how raw material arrives at a facility and the various steps it goes through before the final protein or fat is shipped to the customer.

“We are frying chicken,” Emerson announced, explaining that cooker operations are like an art form, adjusting the temperature to accommodate the moisture content of the raw material. He noted that covers on screens assist with dust control but can make it difficult to inspect those screens. Meal storage is designed to keep the product dry and free of contaminants, with many new fat storage tanks now made of stainless steel to help meet new Food Safety Modernization Act (FSMA) requirements. Another area of great focus for renderers is the loading area to ensure sanitary conditions of products and prevent cross-contamination. In the end, for renderers, the real heart of their operations are the many pieces of equipment used to process raw materials into safe, usable products that the customer wants to buy.

“That is us in a nutshell,” Emerson said. “Recycling is our daily way of life.”

Presenting the rendering industry’s efforts on quality assurance was Dr. Ansen Pond, Darling Ingredients, who said that rendering has the ability to control, verify, and trace animal products to regulatory agencies and the public. He emphasized that programs are in place to ensure *Clostridium perfringens* and other bacteria are removed from raw materials in the rendering process. Pond encouraged renderers to talk with their suppliers and customers about

how to make all products cleaner and to promote biosecurity.

“It’s really going to take a team approach,” Pond declared.

NRA staff members also provided notable information, beginning with President Nancy Foster who described how the group promotes, protects, and defends the best interests of its members and the North American rendering industry. The association does this through biosecurity programs, regulatory work with federal agencies, lobbying Congress, international market promotion, communications, and partnership with the Fats and Proteins Research Foundation.

Kent Swisher, NRA international programs, provided statistics on rendered product production, consumption, and exports, which have all been challenging the past five years. In the United States (US), poultry is the largest consumer of animal protein meals at about 40 percent of production, followed by pet food at 31 percent, swine at 9 percent, exports at 8 percent, and cattle at 6 percent. On the fat side, 31 percent of production is used in the feed and food sector, 25 percent goes to biofuels, 23 percent is exported, and 21 percent is used in oleochemicals. Swisher also reiterated Simmons’ comment about the need to educate others on the misperceptions about rendered products.

Dr. Jessica Meisinger, NRA education, science, and communication, shared how rendering fits the definition of sustainable, which in turn helps animal feed and pet food manufacturers to be sustainable when using rendered proteins and fats. US renderers take nearly half of each livestock animal produced for food that is not intended for human consumption due to consumer preference and turns those products into valuable commodities for further use in feed, fuels, and oleochemicals. In addition, renderers collect and process half of the 4.7 billion pounds of used cooking oil that could otherwise be improperly disposed of and provide oils and grease for feed and fuels. Meisinger noted that as the humanization of pets increases, pet foods are becoming more like human food and less like livestock feed.

Dr. David Meeker, NRA scientific services, described the association’s future strategies, including wider recognition for the rendering industry’s safety programs such as the *North American Rendering Industry Code of Practice*, its high level of compliance with government regulations, and its quality products. He said that emphasis will also be placed on promoting rendering as the “greenest of the green” as well as its own sustainability and the sustainability it provides animal agriculture and feed manufacturers.

Dr. David Meisinger, Validus, explained that not only will auditing of rendering and feed processes now be required under FSMA regulation, but customers will also demand this in the future. He added that auditing should encourage continual improvement of operations rather than be a sign of failure.

Two researchers educated symposium attendees on various projects. Dr. Charlie Gooding, Clemson University, described the results of his examination of three alternative

methods of handling fallen animal carcasses and meat by-products from food animal slaughter – composting, anaerobic digestion, and rendering. He noted that rendering is well regulated by federal, state, and local governments as well as internally (industry) for safety, health, and environmental protection. Laws aimed at only health and environment are in place for composting and anaerobic digestion but vary considerably from state to state and do not address co-processing of meat by-products because it is not common practice. Gooding stated that research has shown composting and anaerobic digestion of meat by-products is possible but challenging.

When compared to aerobic degradation of meat by-products, Gooding’s research showed that rendering avoids 75 percent of potential greenhouse gas (GHG) emissions whereas composting of meat by-products emits three to five times as much GHG as converting all carbon in the material directly to carbon dioxide.

“Composting is terrible for greenhouse gases based on current data because of emissions of methane and nitric oxides primarily,” Gooding commented, who based his analysis on current data available. He concluded that a small farmer might favor composting due to cost but research shows that rendering is preferable with respect to biosecurity, environmental sustainability, and resource recovery for handling large quantities of carcasses and meat by-products.

Dr. Jesse Trushenski, Idaho Fish and Game, focused on both public and private aquaculture and the opportunities for rendered products as a fish meal and oil replacement in diets. She also delved into federal and state hatchery programs that replenish the nation’s waterways with fish for recreational use that also rely on formulated diets. Due to increased demand for fish meal and oil, not only are prices high but global supply is being depleted. Currently, two-thirds of global fish meal and 80 percent of fish oil is used by the aquaculture industry. Trushenski said fish meal and oil replacement attributes to consider are compositional profile and practical feeding value, economic and environmental costs of raw materials, and influence on animal performance.

“In most of these categories, rendered products are competitive,” she stated after sharing her research on beef tallow that appears suitable for certain species of fish. “The opportunities are really great – economically, environmentally, and sustainably – for rendered fats in fish feeds.” When asked about poultry by-product meal in fish feeds, Trushenski said while there is no recent research, the protein is being used in mid-level carnivore feeds, although some hatcheries are reluctant because they are unsure about fish performance.

The rendering symposium wrapped up with Kay Johnson, Animal Ag Alliance, discussing



James Emerson, Pilgrims, discusses rendering operations at the international symposium.

the challenges with media, especially animal rights groups and social media that now provide opportunities for videos and blogs to reach a broader and larger audience than ever before. She encouraged renderers to enhance the knowledge of issues by building proactive relationships with suppliers, customers, legislators, law enforcement, local media, and local community and business groups. Johnson also urged renderers to be transparent and take away the mystery of the industry by developing a website that includes images of people, especially employees, and videos showing the benefits of rendering. Renderers should also be engaged on Facebook, Twitter, YouTube, and with bloggers.

IPPE also featured many other educational forums, including the American Feed Industry Association (AFIA) Pet Food Conference. Jared Koerten, Euromonitor International, reported that the global pet care industry experienced \$105 billion in sales in 2015 and has seen a compound annualized

*Continued on page 18*

### How rendering compares to alternative methods of meat and by-product disposal<sup>1</sup>

	Composting	Digester	Rendering
Controlled consistent process?	Little	Moderate	Full control
Timely processing of raw materials?	Weeks/Month	10+ days	Same day
Take surges/changes in raw materials?	Limits	Limits	Routinely
Greenhouse gases emitted?	Yes	CO <sub>2</sub>	Avoided
Wastewater controlled?	Not all	Yes	Yes
End products regulated?	Minimal	Minimal	Yes
Safely handles inedible meats?	No	No	Yes
Process regulated?	Little	Little	Yes
Kills pathogens reliably?	Spotty	Not all	Yes
End products safe for animals?	Hazard <sup>2</sup>	n/a	Yes <sup>3</sup>
Solids suitable for land application?	Fertilizer	May be toxic to plants <sup>4</sup>	Fertilizer
Source of biofuel?	Uses energy <sup>1</sup>	Yes	Yes
Sustainable?	For plant material	If energy is cheap	For over 100 years

1. Compost and digester comparisons from Mata-Alvarez and Llabrés, 2000.

2. If meat included in compost, potential violation of 21 *Code of Federal Regulations* 589.2000/2001 and Swine Health Protection Act.

3. Use for animal regulated. Certain products cannot be fed to cattle and other ruminants.

4. Volatile fatty acids present in effluent may be toxic to plants.

growth rate of five percent over the last five years. Dog and cat food make up two-thirds of those sales, but pet treats were the best performing growth product as the humanization of pets continues. While US consumers spend the most on pet care globally (\$350 per year per household compared to \$57 global average), emerging regions outside the United States, Australia, and Europe will experience the biggest growth in volume, Koerten noted. Latin America is seeing a four percent growth rate, especially in Mexico where economy foods are the fastest-growing product at 11 percent per year. Koerten mentioned that raw freeze-dried pet foods are exploding onto the market.

AFIA's Gina Tumbarello highlighted trade issues for US pet food. In 2014, France, the United States, Germany, and the Netherlands were the top four global pet food exporters, but data reported in the first 11 months of 2015 shows Germany may perhaps surpass the United States and claim the number two export spot. US exports of all pet food have seen a downward trend since 2011, which is expected to continue into 2016; however, when just looking at dog and cat food, exports have remained stable. Canada is the top importer of US pet food, Japan is second, although declining due to a drop in

dog ownership and a competitive market, and Mexico is third with increasing demand. Tumbarello reported that Canada has a new pet food import policy with a second phase going into effect July 1, 2016.

Robert Prevendar, NSF International, also discussed audits, saying the Global Food Safety Initiative is the benchmark for third-party audits across the world. Although retail driven, more food processors are adopting it, including pet food manufacturers, as it has significantly raised the bar for food and feed safety expectations in North America. Prevendar encouraged attendees to engage management and build a team to ensure success in a company's food/feed safety program. In addition, companies need to be aware that it takes time to build these programs, which include a lot of documentation.

Dr. Dan McChesney, Food and Drug Administration (FDA)/Center for Veterinary Medicine, talked about upcoming FSMA requirements and the center's research into the growing trend of raw pet food. The concern is possible incidences of *Salmonella* and *Listeria monocytogenes*, which were showing an increase in these products in state-level samples. FDA's sampling revealed very little contamination leading the agency to conclude that consumers need to be further educated about the proper handling of raw pet food products. **R**

## Electronic Logging to be Required on Trucks

The United States (US) Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA) has adopted a final rule requiring the use of electronic logging devices (ELD) by commercial motor carriers, which includes some rendering company fleets. FMCSA estimates the new rule will annually save 26 lives and prevent 562 injuries resulting from crashes involving large commercial motor vehicles. The administration also predicts an annual net benefit of more than \$1 billion, largely by reducing the amount of required industry paperwork.

An ELD automatically records driving time and monitors engine hours, vehicle movement, miles driven, and location information. The rule aims to strengthen commercial truck and bus drivers' compliance with hours-of-service regulations to prevent fatigue. The regulation takes effect December 10, 2017, two years after the final rule was published, and includes four main elements:

- Requiring commercial truck and bus drivers who currently use paper log books to maintain hours-of-service records to adopt ELDs within two years. It is anticipated that approximately three million drivers will be impacted.
- Strictly prohibiting commercial driver harassment. The final rule provides both procedural and technical provisions designed to protect commercial truck and bus drivers from harassment resulting from information generated by ELDs. A separate FMCSA rulemaking further safeguards commercial drivers from being coerced to violate federal safety regulations and provides the agency with the authority to take enforcement actions not only

against motor carriers, but also against shippers, receivers, and transportation intermediaries.

- Setting technology specifications detailing performance and design requirements for ELDs so that manufacturers are able to produce compliant devices and systems – and purchasers are enabled to make informed decisions.
- Establishing new hours-of-service supporting document (shipping documents, fuel purchase receipts, etc.) requirements that will result in additional paperwork reductions. In most cases, a motor carrier would not be required to retain supporting documents verifying on-duty driving time.

Federal safety regulations limit the number of hours commercial drivers can be on-duty and still drive as well as the number of hours spent driving. These limitations are designed to prevent truck and bus drivers from becoming fatigued while driving, and require that drivers take a work break and have a sufficient off-duty rest period before returning to on-duty status.

The final rule permits the use of smart phones and other wireless devices as ELDs, so long as they satisfy technical specifications, are certified, and are listed on an FMCSA website. Canadian- and Mexican-domiciled drivers will also be required to use ELDs when operating on US roadways. Motor carriers who have previously installed compliant automatic on-board recording devices may continue to use the devices for an additional two years beyond the compliance date.

The ELD final rule is available at [www.fmcsa.dot.gov/hours-service/elds/electronic-logging-devices-and-hours-service-supporting-documents](http://www.fmcsa.dot.gov/hours-service/elds/electronic-logging-devices-and-hours-service-supporting-documents). **R**

In addition to Vetter's warnings about preferential trade deals being cut between TPP participants while the pact awaits approval in the United States and elsewhere, internal farm program actions by TPP players to mitigate the impact of losing protectionist tariff reductions are emerging. The National Pork Producers Council (NPPC), one of the biggest TPP boosters in Washington, stepped back a bit this winter when the Japanese government informed the National Diet (Japan's bicameral legislature) it would provide "major" domestic support to meat producers to offset TPP impacts. The majority Liberal Party was presented draft countermeasures on farm supports, expected to move as part of a budget package sometime in spring. The plan would cover up to 90 percent of a pork producer's losses between production and sale, or 10 percent more than the current domestic support plan. NPPC has formally raised with the White House the Japanese support increase, telling one Washington, DC, political publication, "We're a little miffed this is happening...It's more about violating the spirit and the point of TPP, which is about creating free trade."

USTR Ambassador Michael Froman told The Wilson Center, a nonpartisan Washington think tank, that TPP is a "strategic imperative" for the White House. Froman is spending a lot of time on Capitol Hill answering questions and "addressing concerns," while working with congressional leadership to find a window of opportunity that is "most conducive" to approving TPP. That window, suggests McConnell, may be after the November election during the December lame duck session in order to spare vulnerable candidates from having to defend an unpopular vote. The timeline for consideration will

start to appear in late spring when House and Senate leaders decide on the floor schedules running up to July 4.

Will TPP be approved or will it go down in flames, wasting five years of negotiating? The consensus among trade watchers in Washington, DC, is that it is "likely" to be approved, but that response is followed by all of the "ifs" detailed in this column. However, all of the business lobbying and campaigning by US commodity groups to get TPP approved will mean little if the White House does not rev up its Capitol Hill machine.

Obama continues to cheerlead globally for TPP. He meets with several Southeast Asia leaders in mid-February when the US hosts 10 countries that are members of the Association of Southeast Asian Nations (ASEAN). In May, the president travels to Japan for the annual G-7 summit, and he may visit Vietnam. In September, Obama travels to China for the G-20 meeting and another meeting with ASEAN leaders in Laos.

The process of multinational approval began February 4 as government officials from the 12 participating TPP nations, including the United States, met in Auckland, New Zealand, for an official signing ceremony. Obama must now finalize the TPP package and submit it to Congress this spring for a vote.

*Politico* reported, when Hatch was asked if he will vote for the pact despite his and his colleagues' misgivings, that he "warned again that the deal could be rejected by Congress if it's submitted before the administration properly addresses specific worries from members."

"I want to see a strong TPP agreement become law," Hatch said. "But right now, a number of lawmakers have raised a variety of concerns that could be problematic if the agreement is submitted to Congress for approval. If the president wants TPP to be approved, he will need to work with Congress." **R**



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# Renewable Diesel Gaining Momentum

Since reporting in this column in the December 2015 *Render* that global renewable diesel use had tripled in the past four years, there is more news this alternative fuel that often uses rendered animal fats and oils as a feedstock continues to gain support.

California Governor Jerry Brown announced in early December that all state agencies will now be required to purchase renewable diesel for their fleets of diesel-powered vehicles and equipment. This move will ensure state government meets targets set by the governor to reduce greenhouse gas (GHG) emissions 40 percent lower than 1990 levels by 2030.

Helping California to meet that aggressive goal will be Golden State Petroleum (GGP), who was selected to supply renewable diesel to 80 percent of the state's agencies. For the past two years, GGP, headquartered in Martinez across the bay from San Francisco, California, has been working closely with Neste, the world's largest producer of renewable diesel, to make the fuel available to both public and private fleets in California. Under a two-year contract, GGP will supply Neste's NEXBTL renewable diesel to the state under the name Nexdiesel.

Also in California, the City and County of San Francisco has completely ended its use of petroleum diesel in the city's fleet and replaced it with renewable diesel, a change that will achieve a significant 50 percent GHG emissions reduction, or 50,000 metric tons, over petroleum diesel. San Francisco is now the largest city in North America to use renewable diesel, which is being produced by Neste and distributed by GGP.

In fiscal year 2014, the City of San Francisco used 5.8 million gallons of diesel fuel, of which 4.9 million was petroleum diesel. The city's 1,966 diesel vehicles are affected by this change, which completely ends the use of petroleum diesel at the 53 city-run fueling facilities. The switch to renewable diesel is part of the city's ongoing efforts to reduce emissions in its fleet and combat climate change. The city started using cleaner forms of diesel fuel by transitioning to a blend of biodiesel. Before the switch to renewable diesel, most of the municipal fleet was using a blend of 20 percent biodiesel and 80 percent petroleum diesel.

In Oregon, the Department of Energy (DOE) is helping public entities across the state tap into the emerging renewable diesel market. The results include reduced emissions and a decrease in fleet maintenance for the Eugene Water and Electric Board (EWEB), which began testing the alternative fuel in September 2015.

In 2014, DOE issued EWEB a tax credit for installing an alternative fuel station to run its fleet of vehicles. The station was designed to pump biodiesel, but DOE senior policy analyst Rick Wallace thought the board could go even greener by using renewable diesel rather than biodiesel.

"Moving our fleet to biodiesel helped us achieve our carbon reduction goals," said EWEB Fleet Manager Gary

Lentsch. The board quickly realized the benefits of switching from petroleum diesel to renewable diesel for its fleet of 85 diesel vehicles. Using a regular gallon of diesel fuel emits more than 30 pounds of GHG into the air, whereas a gallon of renewable diesel emits fewer than 10 pounds. EWEB is currently using about 6,100 gallons of renewable diesel a month from a Eugene, Oregon, supplier.

EWEB also discovered that renewable diesel is much easier on vehicle engines and diesel particulate filter systems than petroleum diesel. After making the switch, Lentsch noticed a significant decrease in maintenance issues.

"We have telematics on all of our vehicles and equipment so we know what's going on with our fleet," he said. "It wasn't uncommon to get alert codes on our vehicles and our shop would have to manually empty the filters [known as regeneration]. After we switched to renewable diesel, our trucks don't require regeneration as often as when they were using regular diesel. As a matter of fact, the shop hasn't done a manual re-gen since the switch. Now our trucks are staying in service longer with less downtime."

On the equipment manufacturer side, both Mack Trucks and Volvo Trucks North America have approved the use of renewable diesel for all of their engines. Both companies credited the fuel's reduction in GHG and particulate emissions as well as decreased maintenance costs for their support of renewable diesel. Volvo Trucks also noted that renewable diesel has a much lower cloud point, which improves the low-temperature performance issues sometimes associated with biodiesel. Both companies cited the California Air Resources Board's life cycle analysis of renewable diesel under its Low Carbon Fuel Standard that shows reductions in GHGs by 15 to 80 percent, depending on feedstock source.

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## California Welcomes New Biodiesel Facility

The Golden State has a new 20-million-gallon-per-year biodiesel facility in the San Joaquin Valley. Located in Five Points, California, a productive agricultural region, the new Biodico Westside plant operates entirely on renewable heat and power, and incorporates advanced real-time and remote monitoring for complete system automation. In addition to processing multi-feedstocks, including used cooking oil, vegetable oil, and animal fats, the facility also utilizes anaerobic digestion, gasification, and an advanced utility scale solar cogeneration system.

Biodico's plant went online in December 2015 and was supported, in part, by grants from the California Energy Commission and in collaboration with the United States Navy; University of California (UC), Davis; UC Santa Barbara; and California Polytechnic State University, San Luis Obispo. The new facility also addresses energy security with its

modular construction and ease of deployment, characteristics particularly relevant to the Navy, which Captain Monty Ashliman, commanding officer at Naval Air Station Lemoore, noted during Biodico Westside's opening ceremony.

"The Navy is one of the largest consumers of diesel fuel in the world," stated Ashliman. "It fuels many of our ships, aircraft, vehicles, and generators. Without it our readiness would be compromised, which is why Secretary of the Navy Ray Mabus has set a goal of reducing the Navy's petroleum consumption by 50 percent by 2020 through energy efficiency and the use of petroleum alternatives. This [Biodico Westside's] sustainable technology was developed as a collaboration among Biodico, the California Energy Commission, and the Naval Facilities Engineering Command Expeditionary Warfare Center, and showcases cutting edge biofuel and bioenergy technology."

Many of the 45 jobs at Biodico Westside are created in partnership with West Hills Community College. The company developed an internship specifically for the college and hires graduates of their two-year industrial technology program.

## Connecticut Plant Acquired

Kolmar Americas Inc., an integrated petroleum, petrochemicals, and renewable fuels marketing and trading company headquartered in Bridgeport, Connecticut, has acquired American GreenFuels LLC located in New Haven, Connecticut.

Formerly known as Greenleaf Biofuels LLC, the biodiesel plant, which is the largest operation of its type in New England, operates from within New Haven Terminal at New Haven Harbor and has been steadily increasing production in

each of the last three years. The plant is forecast to produce approximately 15 million gallons of biodiesel in 2016. This is the first such acquisition in Kolmar Americas' history. The company has had a strategic relationship with the biodiesel plant for several years. American GreenFuels produces biodiesel from used cooking oil and other waste greases sourced from within Connecticut and throughout the northeast United States. The biodiesel is used primarily by companies selling diesel fuel and by Connecticut homeowners after it is blended with conventional heating oil.

## Iowa Biodiesel Production Breaks Record in 2015

Despite policy uncertainty for nearly all of 2015, biodiesel production in Iowa set a new record of 242 million gallons, according to the Iowa Renewable Fuels Association (IRFA). Production was up from 227 million gallons in 2014 and topped the previous record of 230 million gallons set in 2013. Once national numbers are announced, Iowa is expected to again lead the nation in biodiesel production in 2015.

The amount of biodiesel produced from soybean oil in Iowa decreased in 2015, but remains the largest feedstock in Iowa, accounting for 66 percent of production. Animal fats held steady at 19 percent of biodiesel feedstocks. With changes to some biodiesel plants' technology, distillers' corn oil made a big jump to 10 percent of production, up from just 2 percent last year. Used cooking oil and canola oil accounted for the remaining 5 percent.

*Continued on page 22*

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“It must be said that Iowa’s record biodiesel production in 2015 is a testament to the efficiency of Iowa’s plants and to the effectiveness of Iowa’s state level policies promoting the production and use of biodiesel,” stated IRFA Executive Director Monte Shaw. “Considering neither the federal Renewable Fuel Standard (RFS) nor the federal biodiesel blender’s tax credit were in effect for the vast majority of 2015, the resiliency of Iowa biodiesel producers really shone through in 2015. With the federal RFS and tax credit in place for 2016, we are hopeful for big things.”

Iowa is the nation’s leader in renewable fuels production with 12 biodiesel facilities with the capacity to produce nearly 315 million gallons annually and 43 ethanol refineries with a 4-billion-gallon per-year capacity, including nearly 55 million gallons of annual cellulosic ethanol production capability.

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## London Buses to Run on Waste Fats and Oils

One-third of the bus fleet in London, England, will soon be running on cleaner-burning biodiesel produced from used cooking oil and tallow. Two London bus operators, Stagecoach and Metroliner, have signed agreements with Argent Energy (UK) Limited to supply them with a 20 percent biodiesel (B20) blended with petroleum diesel.

By March, almost 3,000 of the city’s 8,900 buses will be powered by the B20 fuel blend after 642 buses began using the fuel for two months on a trial basis. The move will result in a reduction in carbon dioxide emissions of 21,000 metric tons each year. This is in addition to the 48,000 metric-ton carbon dioxide reduction from 2013 levels as a result of using lower emitting buses such as hybrids.

London’s bus network is one of the largest in the world, carrying almost 2.4 billion passengers annually. Currently, the fleet uses around 240 million liters (63.4 million gallons) of fuel each year. It is estimated about 80 million liters (21.1 million gallons) of biodiesel will be consumed yearly under the agreements.

Argent Energy pioneered the large-scale commercial production of biodiesel in the UK and is the country’s foremost producer of biodiesel from wastes and residues.

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## Massachusetts Home to First Community-owned Plant

Co-op Power, a consumer-owned sustainable energy cooperative, expects its new biodiesel plant in Greenfield, Massachusetts, to come online early this year. The plant will receive used cooking oil from local restaurants, schools, and institutions and convert it into biodiesel.

According to Co-op Power CEO Lynn Benander, the Northeast Biodiesel Plant is not the first biodiesel refinery in the region but it will be the first that is locally owned. She also noted that one of the biggest reasons the Co-op Power became involved in the project was the limited access to biodiesel in the area. Isaan Baker, director of community-shared solar

programs at Co-op Power, says there were opportunities to have outside investors join the project, but keeping the investment local helped enhance community control.

The plant will initially produce 1.75 million gallons of biodiesel per year, with an expansion to 3.5 million gallons within the first 12 months. Co-op Power is investing \$3.5 million to build the plant that will be run by a staff of 14.

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## REG Buys Sanimax Biodiesel Plant

Renewable Energy Group (REG) Inc. has signed an asset purchase agreement with Sanimax Energy LLC to acquire Sanimax’s 20-million-gallon-per-year biodiesel plant in DeForest, Wisconsin, for approximately \$11 million in cash and 500,000 shares of REG common stock. REG will 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 will be re-named REG Madison LLC. Sanimax operates a grease processing facility at the same location, although that facility is not part of the acquisition. Closing of the transaction is subject to customary closing conditions.

“This agreement is in line with our business plan to improve focus on our core businesses,” said Martin Couture, Sanimax’s president and chief executive officer. “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. Sanimax looks forward to continuing its excellent business relationship with REG as a shareholder and a reliable feedstock supplier.”

The Sanimax biorefinery 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, animal fats, and inedible corn oil in addition to refined vegetable oils.

Upon closing of the transaction, REG will own 11 active biomass-based diesel refineries in seven states with a combined production capacity of 452 million gallons.

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## More Charges and Sentencing in Biodiesel Fraud Cases

David Dunham of Pennsylvania and Ralph Tommaso of New Jersey have been charged with engaging in a multi-million-dollar conspiracy involving used cooking oil.

From 2010 through 2012, Dunham and Tommaso operated, respectively, Smarter Fuel Inc. and Environmental Energy Recycling Corporation LLC, coordinating the activities of the companies and then formally merging as Greenworks Holdings LLC. According to a 101-count indictment, the defendants falsely claimed to have produced and sold renewable fuel for which they misappropriated approximately \$50 million in payments, subsidies, and other benefits. Both men allegedly defrauded government programs intended to encourage the production of renewable fuel by claiming credits for fuel they never produced, and that otherwise did not qualify, thus stealing tens of millions of dollars from the United



States (US) government. It is further alleged that Dunham and Tommaso stole millions more by fraudulently claiming and generating tradable credits that they sold to unsuspecting purchasers who believed these credits satisfied their legal obligation to use a certain quantity of renewable fuel per year.

The defendants, through their companies, collected used cooking oil from restaurants and other food service locations, sometimes processing it to remove particles, water, and other waste. They then sold the cleaned product primarily to renewable fuel producers.

Dunham and Tommaso did not sell the cleaned used cooking oil as a final fuel but allegedly fraudulently claimed otherwise, applying for and receiving government subsidies for every gallon of cleaned used cooking oil they produced, plus much more. In 2010, Dunham and Tommaso purportedly claimed subsidies and other payments on more than 17.5 million gallons of product when they produced less than 6 million gallons. In 2011, both men allegedly received subsidies and other payments on more than 18 million gallons when only about 7.5 million gallons were produced. Of the cleaned used cooking oil they did produce, the vast majority did not qualify for a credit or subsidy. The defendants' allegedly fraudulent claims included more than one million gallons of the wastewater from their process, the non-fuel sales of their product as a feedstock to biofuel producers, and transactions that existed on paper only.

The defendants are charged with conspiracy, providing false statements to the government, wire fraud, tax fraud, and obstruction of an Internal Revenue Service (IRS) audit and a US Department of Agriculture examination. Dunham is also charged with underreporting his taxable income for two years and allegedly obstructed an IRS audit of Smarter Fuel.

In a related matter, William Barnes, a professional engineer, was charged with two counts of conspiring to provide false statements to the Environmental Protection Agency (EPA). He was hired to help the companies register for EPA's program as renewable fuel producers and allegedly conspired with the company owners to provide false engineering reports to EPA.

In a separate case, after pleading guilty in April 2015, Joseph Furando of New Jersey was sentenced in early January in Indianapolis, Indiana, to 20 years in prison, three years of supervised release, and to pay more than \$56 million in restitution for his role in an elaborate scheme to defraud biodiesel buyers and taxpayers by fraudulently selling biodiesel incentives.

From 2007 through 2012, E-biofuels LLC owned a biodiesel plant in Middletown, Indiana. Furando admitted that sometime in late 2009, he and his companies began supplying E-biofuels with biodiesel that was actually made by another company and had already been used to claim tax credits and subsidies. Because these incentives had already been claimed, Furando could purchase the biodiesel at low prices, sometimes for more than \$2 per gallon less than biodiesel eligible for the credits. He then supplied the product to E-biofuels that he and his codefendants claimed to have produced. They then illegally recertified it and sold it at the much higher market price for incentivized biodiesel. Over the course of about two years, the

defendants fraudulently sold more than 35 million gallons of fuel for a total cost of over \$145.5 million and realizing a profit of more than \$55 million at the expense of customers and taxpayers.

Furando's companies, CIMA Green LLC and Caravan Trading LLC, were also sentenced to pay \$56 million in restitution and million-dollar fines. Although largely defunct, the companies must serve two years' probation to ensure that what assets remain are properly directed toward victims. The court imposed, but suspended, the fines. A third company, E-biofuels, operated by Furando's codefendants Craig Ducey, Chad Ducey, and Chris Ducey, was also sentenced to pay the \$56 million in restitution. E-biofuels is in bankruptcy and its few remaining assets are being distributed through the bankruptcy process.

All the other defendants have pled guilty and are awaiting sentencing. Another co-conspirator, Brian Carmichael, was charged in a separate case and cooperated with the government before the criminal cases were filed. In December 2015, he was sentenced to five years of imprisonment. **R**

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## Challenges Loom in the Year Ahead

January means a new year with all its possibilities. Unanticipated events will challenge and test the rendering industry so now is the time to take stock and look at what is ahead in the next 12 months. Solid groundwork was laid in 2015 for what the National Renderers Association (NRA) expects to work on in the coming year. Of course, even with the best planning, “expect the unexpected” and NRA will be prepared to meet it.

The association’s core purpose is to deliver value to the North American rendering industry so rendered products can be marketed domestically and internationally without undue burdensome and restrictive regulations and laws. NRA members recognize the need for a strong industry voice.

NRA’s mission in its new strategic plan is to advocate for a sustainable food chain, public health, and the environment through the production and marketing of rendered products and services. To accomplish this, NRA:

- promotes effective public policy, regulation, and technology;
- encourages responsible business practices;
- supports free movement of rendered products in domestic and international markets; and
- improves stakeholder awareness and understanding of the value of rendering.

For the past 81 years, NRA has represented and stood up for the industry, sometimes against great odds. Today, it is the only national industry organization dedicated exclusively to the interests of the rendering industry.

Renderers face numerous challenges: some are the same while new ones keep coming up. The industry’s platter is always full.

This year began with a challenging business and political environment. Product prices are not nearly where renderers would like them to be. Congress has great difficulty getting its approved bills signed into law and an activist Obama Administration is using executive orders to implement its agenda, bypassing Congress. National elections are this fall and the United States (US) electorate is deeply divided. President Barack Obama will attempt to cement his “legacy issues” into regulation this year, such as climate change, gun control, immigration, healthcare, the environment, and the Trans-Pacific Partnership free trade agreement. Add specific rendering issues to this mix, including large corn stocks, tight beef raw materials, plentiful competing fats and oils, a strong US dollar, and foreign trade barriers, and 2016 will be a challenging year.

New rules to implement the Food Safety Modernization Act (FSMA) continue to be a high priority for NRA. With the final regulation issued last year, 2016 will see Food and Drug Administration require compliance starting this fall. NRA is working with the agency to help develop training materials for plant inspectors to ensure they understand rendering. By law, large companies must comply with FSMA’s Current

Good Manufacturing Practices for animal food products by September 18, 2016, small operations by September 18, 2017, and very small companies by November 16, 2018. NRA is a great resource to answer questions to help renderers become compliant.

FSMA is a good example of how NRA remains constantly vigilant on regulatory and legislative efforts at the national and state level. The association provided input into the process and shared its policies and positions with key officials.

NRA has updated the Animal Protein Producers Industry (APPI) *North American Rendering Industry Code of Practice* to include changes required by FSMA so renderers certified under the code’s new standards will know they are in compliance with the law. NRA also collaborated with the American Feed Industry Association (AFIA) to align the *Code of Practice* with AFIA’s Safe Feed/Safe Food program so that one audit will receive both AFIA and APPI certification.

The best way for renderers to prepare for FSMA requirements is to attend the upcoming NRA/APPI *Code of Practice* training in June and have rendering plants audited. The training includes what renderers need to know and do to comply with the new regulations. Details will be sent out to NRA members soon.

Growing and maintaining the export market for rendered products is an important role for NRA. Exports are vital, with 19 percent of total production exported (over 18 percent of animal proteins and 20 percent of fat). Top markets are Mexico, China, Indonesia, Canada, the European Union (EU), and Singapore.

NRA operates 45 projects in 57 countries, two overseas offices (in Hong Kong, China, and Mexico City, Mexico), and nine consultants in aquaculture, poultry, pet food, and EU policy. This strong outreach is funded jointly by NRA and the US Department of Agriculture (USDA). Each year, NRA receives approximately \$1.7 million from two USDA programs – Foreign Market Development and Market Access Program. NRA is required to contribute sizeable funds to cost-share its activities with USDA as a condition of receiving these federal grants. NRA’s overseas programs enable the industry to have a unified effort to grow its exports. The association will continue to urge Congress to fully fund USDA’s export programs this year.

Overseas sales of rendered products – and resulting domestic disappearance – benefit the entire rendering industry, even those not directly involved in exports. Gaining market access by reducing foreign trade barriers is a top NRA priority. Rendered products face numerous non-tariff technical trade restrictions often based on questionable science driven by political expediency. NRA works closely with USDA, the Office of the US Trade Representative (USTR), and other government agencies to press trade negotiators to open markets so renderers have a fair opportunity to compete.

To start the new year and his new NRA chairmanship role, Tim Guzek, Sanimax, came to Washington, DC, to work on

lifting two important trade barriers to rendered product exports. He and NRA staff met with USDA Chief Veterinarian John Clifford to urge approval of a draft small ruminant rule to allow US imports of small ruminants and their products in compliance with World Organization for Animal Health standards. Without this rule, imports of these animals and products from countries affected by bovine spongiform encephalopathy (BSE) and/or scrapie are severely restricted. This means renderers from Canada who might have small ruminant material in their yellow grease and/or tallow cannot export to the United States. USDA's draft small ruminant rule is at the Office of Management and Budget for review. Once approved, USDA will publish the proposed rule for public comment, hopefully later this year.

Another non-tariff technical trade barrier facing the US rendering industry is the inability to export tallow to the EU for industrial purposes due to Europe's concerns about BSE. This tallow would not be used for feed, but instead for biodiesel and oleochemicals. During his visit to Washington, DC, in early January, Guzek and NRA staff met with USTR to emphasize the importance of opening up the EU market during current negotiations on the Transatlantic Trade and Investment Partnership free trade agreement. The industry's negotiators are in full support and will press the case during talks with the EU. This represents a \$200 million-plus market opportunity for US rendered fats.

Since the biomass-based diesel market has become important for rendered fats and oils, it is a priority for NRA. Renderers supply 22 percent of the feedstock for US biodiesel and renewable diesel. Over the past two years, NRA emerged with a clear position in support of biomass-based diesel that enabled the association to advocate in favor of a strong Renewable Fuel Standard (RFS) and biodiesel tax credits in Congress. In late 2015, NRA was encouraged the Environmental Protection Agency (EPA) established a positive RFS for the next several years and Congress extended the tax credits through the end of this year. NRA continues to partner with the National Biodiesel Board to support biomass-based diesel.

Renderers also continue to be challenged by new environmental

regulations on water and air that could increase operating costs. For example, EPA's recent rule on waters of the United States represents a vast expansion of federal authority. NRA opposes such unreasonable regulations.

Food waste is becoming a national issue. Renderers in some states, such as California, already face the challenge of retaining meat and bone for rendering rather than losing it to subsidized composting or anaerobic digestion. The Food Recovery Act has been introduced in the House of Representatives to reduce the amount of food wasted each year. The bill would establish composting as a conservation practice eligible for financial and technical support under USDA programs. An infrastructure fund would also be established to support construction of large-scale composting and food waste-to-energy facilities in states restricting food waste going to landfill. NRA is working to educate decision-makers about the higher value end product from rendering compared to composting and anaerobic digestion. The concern is that with incentives to divert produce and other food waste to these alternative disposal means, grocery stores may also add meat and bone that should go to rendering.

Within NRA this year, staff will work on implementation of the new strategic plan that was adopted by the NRA Board of Directors last fall. Sustainability,

increasing awareness about the value of rendering, encouraging markets here and abroad, and promoting product safety are major focus areas.

Another NRA priority this year is to continue enhancing coordination with the Fats and Proteins Research Foundation to ensure cross-pollination of ideas and scientific information.

As you plan your 2016, be sure to include NRA meetings on the calendar. All members are welcome to attend. NRA's spring meeting of the board of directors and committees is April 19-21 at Reynolds Plantation at Lake Oconee in Greensboro, Georgia. NRA's annual Washington, DC, Fly-in is June 13-15 with policy briefings by senior government officials and congressional meetings on rendering issues while the *Code of Practice* workshop is June 21-23 in Denver, Colorado. NRA's widely attended annual convention is October 17-21 in Amelia Island, Florida. I encourage you to join us.

If you are not a member of NRA, why not? I have been here over two years now, not long enough to know all the reasons companies choose not to join or renew their memberships, but that was then and this is now. The association is looking forward with energy and enthusiasm to 2016 and is committed to serving every member of NRA. We must all join together to have a stronger industry. **R**



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## Building Industry Relationships

Building industry relationships is important for suppliers and manufacturers. Connecting with international and non-governmental organizations, where appropriate, is also essential and should be developed. A partnership generally based on communication, strategy, and formed with people vital to the success of a business or organization is critical.

These affiliations can lead to new business, improved customer or client engagement, and an improved reputation and profile. For its part, the World Renderers Organization (WRO) aims to maintain current relations and promote the rendering industry where possible. At this time, WRO has cooperative relationships with the World Organization for Animal Health (OIE), Codex Alimentarius, Food and Agriculture Organization, World Trade Organization, International Feed Industry Federation, Global Aquaculture Alliance, and individual country rendering associations.

Recently, a new connection has developed between WRO and the Global Alliance of Pet Food Associations (GAPFA) following an invitation to be a guest speaker at the first GAPFA World Congress held in Cape Town, South Africa, in November of last year. The South African Pet Food Industry hosted the event and did an excellent job with all aspects of the congress.

This author was asked to speak on the topic “World Renderers Organization and working with the OIE.” The occasion was an honor as the WRO presentation followed keynote speaker Dr. Botlhe Modisane, president of the OIE World Assembly of Delegates. Modisane spoke to the audience on some insights into working with OIE.

Founded in November 2014, GAPFA was originally comprised of 13 founding member associations and companies. Its mission is “to support the health and wellbeing of pets and to promote the benefits of living with them, by providing a forum for global industry consensus to address key mutual issues. Its vision is to be recognized as the global voice of the pet food industry.”

GAPFA’s president, Roger Bektash, explained the association’s strategic objectives as trade facilitation and food safety. A key strategy is to gain a memorandum of cooperation (MOC) with OIE. The congress provided an excellent opportunity to present the progress and achievements in these areas. Having WRO speak on its experience with OIE was regarded as a chance for GAPFA to learn from an organization that had already undertaken the task.

Although WRO does not have a great depth of historical knowledge collaborating with OIE, the presentation explained how WRO obtained its MOC in 2013 after working for several years to get the agreement. The procedural steps explained were:

1. An organization needs to be relevant to OIE to secure an MOC (WRO clearly is).
2. To gain an MOC, an organization needs to represent as wide as possible the global interests of the industry



From left, Barry Hundley, Pet Food Industry South Africa; Tim Juzefowicz, WRO; and Roger Bektash, GAPFA.

and not just developed countries. OIE needs to see a good representation from developing countries (this took WRO several years to achieve).

3. Having an MOC means the organization is effectively involved as an “observer” only. The group can communicate in writing with OIE but cannot speak directly at meetings, only via country members.
4. When the MOC is achieved, the organization needs to engage with one or more country member representatives as any activity with OIE is done via country members.
5. Visit OIE in Paris, France, and engage with key people, such as the director general, which is often not easy.
6. Meeting with the head of OIE’s international trade is particularly useful. Ensure contact details are logged with OIE.
7. Request to speak at the annual OIE World Assembly. A short time slot will be granted. It took three attempts for WRO’s past-president Stephen Woodgate to get a slot. There will only be time to let OIE delegates know that the organization exists and is a resource to be called upon when needed.
8. Keep up with all OIE communications and react as necessary either directly or via member country delegates.

The WRO presentation closed with this author addressing the congress by saying, “The WRO would like to maintain an ongoing relationship between the two organizations. I think we are able to learn from one another and build on our current strengths. I also support joint participation at world events such as the congress, symposia, and conventions.”

The following are some of the key market issues currently being faced and forecast for the regions as presented in the GAPFA regional/country presentations:

**Australia**

- Pet population shows slow decline.
- Pet food market volume growth slow or static.
- Market values increasing due to upgrading to premium products.
- Not all countries follow OIE guidelines when considering disease outbreaks by choosing to adopt a suspension of trade despite scientifically- and internationally-accepted guidelines.

**Canada**

- Pet populations are stable but not growing.
- Modest growth in domestic market is forecasted.
- Growth in premium products, pet specialty.
- Continued trade barriers to shipments because of animal disease outbreaks.
- Artificial trade barriers and regulations that do not recognize heat-treated status of pet food.
- Fluctuating regulatory agenda strains association resources.

**Japan**

- Dog population decline of 21 percent in the last six years that coincided with a drop in breeder population and puppy supply after law revision in 2006.
- Likely future restructuring and reduction in dog numbers with legislation in 2018 on breeder dogs.
- Challenges in creating a social consensus in the country that dogs can help people improve/maintain their health, provide social buffering, and reduce medical costs in the country where there has been very little history of a working-dog concept.
- Project to publish a series of global scientific studies on the health benefits focusing on dog ownership.

**Europe**

- Demographic changes: More single households, fewer traditional families; urbanization; pets as companions taking bigger roles for individuals; fewer larger dogs and more smaller dogs; more cats than dogs, in general; better treatment of pets by owners (i.e., quality food, veterinary care, etc.).
- Within the European Union (EU), similar trends in the market have been observed with high-end premium products rising, low-priced basic products growing moderately, private label items stagnating or growing only slightly, and medium-priced products losing market share.
- EU pet food legislation is proposed by the European Commission but voted on by 28 member states. Control and implementation of EU legislation by all 28 member states leads to 28 different interpretations and potential disconnect in the national or even regional application of EU legislation.
- Threat 1: Critical views by authorities, media, and consumers with the potential of triggering legislation targeting functional claims, more detailed ingredient labeling, use of raw materials of animal origin (i.e., not using certain ingredients), control of internet marketing, and compliance of third-country product imports.
- Threat 2: Requiring sustainability credentials.
- Threat 3: Particulate and chemical contaminants, and physical risk factors (i.e., heavy metals, mycotoxins, PCBs, dioxins, additive upper limits, and additive purity criteria).

*Continued on page 29*

# RENDERING IS RECYCLING

### WHAT MATERIALS ARE RENDERED?

**Packing Plants**

**147.2 MILLION** head of cattle, calves, hogs & sheep are slaughtered annually in the US

**10 BILLION** chickens and turkeys are processed each year in the US

**Farms** Some animals die on the farm from injury, old age, or other issues. These animals represent about 4.5% of rendered product

**Grocery Stores generate** *Super Foods* of scraps, fat, bone, expired meat & used cooking oil annually

**1.92 BILLION POUNDS**

### WHAT ARE THE PRODUCTS OF RENDERING?

**Renderers collect:**

**56 BILLION POUNDS** of raw materials every year in the U.S. and Canada

If all renderable product was sent to the landfill, all available landfill space would be used in **4 YEARS**

---

**Renderers recycle these materials into:**

**10 BILLION POUNDS** of fat and oil products

**& 9 BILLION POUNDS** of protein products annually

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# Research Investment Vital to Industry's Future

*Editor's note – FPRF Research Wrap-up is the new name for the ACREC Solutions column as articles will now encompass all activities of the Fats and Proteins Research Foundation, not just those at the Animal Co-Products Research and Education Center at Clemson University.*

The research program funded by the Fats and Proteins Research Foundation (FPRF) is going strong. Investing now helps ensure a strong future for coming generations and builds upon a legacy of innovation and stewardship.

Research is currently being funded in a number of areas, including the quality of rendered products in pet food, enhancing the value of rendered products, odor mitigation, wastewater improvement, novel antioxidants, poultry nutrition, and feed safety. Several researchers have received prestigious outside grants and awards for their FPRF-funded projects, something that not only helps the researcher but also increases the foundation's reach.

The pet food industry is an important market for renderers. FPRF has funded a number of research projects through the new pet food program at the Department of Grain Science and Industry at Kansas State University (KSU). Dr. Greg Aldrich is world-renowned for his knowledge of pet food nutrition and is currently working on two projects for FPRF at KSU. One project looks to improve the shelf life of pet food. It is well known that oxidation is a concern in pet food, but the actual level of oxidation in rendered products that is acceptable is not often understood. The second project by Aldrich is to improve antioxidant application. Currently, product flow and spray coating efficacy on rendered protein meal can be variable and antioxidant application can be challenging. This research aims to ensure antioxidants are able to be applied more evenly, decreasing ingredient oxidation.

Another researcher in the KSU program, Dr. Kadri Koppel, is looking to determine the acceptable level of shelf life and product oxidation at the consumer level. She is actually conducting taste panels where people eat the pet food! Oxidation research is important at different levels – if the food is too oxidized for the animal, it will not eat the food. In addition, it is equally important that the consumer buying the pet food not feel the product is too oxidized (and perhaps smell bad) to feed to their animals.

One more project focusing on antioxidants is being conducted at the Animal Co-Products Research and Education Center at Clemson University. Drs. Vladimir Reukov and Alexey Vertegel are focusing on finding a novel livestock feed preservative based on antioxidant enzymes extracted from animal blood. FPRF has been funding this research since its inception and the product is nearly ready for the marketplace. The researchers are conducting their final steps of research and will then obtain regulatory approval and business development so that renderers can begin using this all-natural product.

Dr. Jeffrey Firman at the University of Missouri has run a

number of research studies for FPRF over the years. His field is poultry nutrition research, which is important to pursue as animal genetics have improved – a chicken today is unlike a chicken from 30 years ago due to advancements in breeding. Nutrition research also dictates the diets that nutritionists develop for their clients. Firman is looking at high-fat starter rations for broiler chickens and turkeys and how they improve bird growth and performance.

Enhancing product value is always important to renderers so Drs. Christopher Kitchens and Mark Blenner at Clemson University are approaching how to do that from different directions. Kitchens has been working on an improved technology to use carbon dioxide as a green solvent for extracting more fat from meat and bone meal. Carbon dioxide is non-toxic, chemically inert, inexpensive, abundant, and Food and Drug Administration-approved. A scaled-up version of his project is currently running in rendering plants to see if it can succeed under actual rendering plant conditions. Blenner is researching a new pathway to turn rendered fat into polyunsaturated fatty acids. Polyunsaturated fatty acids are in high demand and sell at a premium, so a feed-grade source of omega-3 fatty acids could be a high-value market for renderers.

Dr. Xiuping Jiang is putting the finishing touches on her research on bacteriophage at Clemson. Bacteriophage are viruses that infect and replicate inside bacteria. This could be used as a control against *Salmonella* in a rendering plant, especially in areas that are hard to clean. Certain bacteriophage are currently already in the food system to control *Listeria monocytogenes* in processed meats and cheeses and have been granted generally-recognized-as-safe status by the Food and Drug Administration.

Plant operations are not an area that most research organizations focus on, but they are vitally important to renderers. One research project by Dr. Scott Husson at Clemson is to find a low-energy process for the concentration of stick water. A better method for dealing with stick water would allow renderers to meet city and state water regulations more easily, as well as save money and be more environmentally friendly.

Odor is another major issue that all renderers regularly have to deal with. Dr. Daniel Whitehead at Clemson is working on functional nanoparticles that bind to the malodorous compounds and either inactivate the odor-causing material or remove it altogether. These nanoparticles are biodegradable and environmentally safe. He is moving to scale-up the project to see if it is successful at plant speed.

Another FPRF project is unique. Non-feed uses of rendered products are always important, notably those with the potential of being profitable. Clemson University has the best automotive research facility in the United States and Dr. Srikanth Pilla is exploring a high-strength, odor-free thermoset and composite from rendered proteins for applications in automobiles or other vehicles. The automotive industry has been mandated to

become more environmentally friendly and one way to do that would be to use rendered materials!

The research FPRF funds is vital to the rendering industry and changes as the needs of the industry evolve. The foundation focuses on research projects that improve current uses of rendered products and discover new ones to grow demand, increase rendering efficiency with new technologies to improve operations, reduce costs, promote product quality and safety, and enhance the sustainability of rendering and its contribution to customers' environmental footprint. **R**

**International** Continued from page 27

**Thailand**

- Trend of cats and small-breed dogs are increasing in urban areas.
- Prepared pet food has been better accepted by pet owners for convenience and nutritious factors.

**United States**

- Major challenges for pet food include the Food Safety Modernization Act that takes effect in September 2016 and includes new current good manufacturing practices, preventive controls, and reporting requirements.
- Increasing consumer interest in pet food (i.e., where it comes from).
- Humanization of pets; they are part of the family.
- New markets for unique, innovative pet food products.

The next GAPFA World Congress will be held in Brazil later this year. **R**

## Letters

Dear Editor,

I just read the Rendertorial in the December 2015 issue of *Render* and wanted you to know that my wife Martha and I recall the 1996 convention where I ran into Kareem Abdul-Jabbar on the elevator. Much of what you talk about I recall feeling as well in my early conventions but we had already attended a few by then.

We were all quite a bit younger in 1996 and were not as confident in the "Ritz"-type setting. Martha and I were walking through the hotel in blue jeans because we were heading to the wharf when we were stopped by hotel staff and told that blue jeans were not permitted in the hotel.

I just wanted to let you know how much I appreciated your article and you certainly are a key member of the "family." I did not remember that 1996 was the BSE (bovine spongiform encephalopathy) year but it certainly makes sense.

By the way, Dr. Don Franco was wonderful to Martha and I as well and he liked talking about Iowa State University because of the labs there. He had spent significant time in Ames, Iowa. Martha put me through school while she worked at the veterinary school and Dr. Franco was so warm to us. He really knew how to make us feel comfortable.

Keep up the great work and thanks for all you do.

Sincerely,  
Paul Rothenberger  
Alloy Hardfacing & Engineering  
Jordan, Minnesota

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# What to Expect From OSHA in 2016 and Beyond

*Editor’s note – Mark A. Lies II is a partner with 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.*

The new year is here and with that comes yet another year of enhanced Occupational Safety and Health Administration (OSHA) enforcement and new regulations. Further, due to the upcoming end of President Barack Obama’s time in office, questions exist as to whether OSHA will continue its aggressive agenda of enhanced enforcement with increased citations and greater penalties or whether the agency will respond to political pressure from Congress. In either case, this year will bring new levels of uncertainty with the agency not seen since the current administration took office in 2009. This article will address OSHA’s current and upcoming enforcement initiatives and trends, all of which will affect employers this year.

Though a number of enforcement initiatives may not technically be considered new for 2016, it can be expected that OSHA will continue to increasingly issue citations under the General Duty Clause and multi-employer worksite doctrine. It is also expected that OSHA will continue to focus its attention on the training and protection provided to temporary employees, especially under its powered industrial truck standard, personal protective equipment (PPE) standards, and lockout/tagout regulations. OSHA has also been stepping up its workplace heat illness initiative, sending expansive subpoena requests to dozens of employers engaged in industries where employees typically can be exposed to heat, including manufacturing and construction, even if no injuries or illnesses have been reported. As such, it is important that employers remain aware of these issues to try to limit liability in 2016.

## Increased OSHA Penalties

The new bipartisan budget passed by both the House and Senate and signed by Obama in early November 2015 contains provisions that will raise OSHA penalties for the first time in 25 years. The budget allows for an initial penalty “catch-up adjustment,” which must be in place by August 1, 2016.

The maximum initial catch-up adjustment will be based on the difference between the October 2015 Consumer Price Index (CPI) and the October 1990 CPI. The 2015 CPI came in at 237.838. Based on the October 1990 CPI of 133.500, the

maximum catch-up adjustment will be approximately 78.16 percent and the new maximum penalties could be:

	Current	August 2016
• Other than serious violations	\$7,000	\$12,471
• Serious violations	\$7,000	\$12,471
• Willful violations	\$70,000	\$126,000
• Repeat violations	\$70,000	\$126,000

After the initial catch-up adjustment, OSHA will be required to implement annual cost-of-living increases, with the adjustment tied to the year-over-year percentage increase in the CPI. Adjustments must be made by mid-January each subsequent year.

OSHA has the option to implement a catch-up adjustment less than the maximum if the agency determines increasing penalties by the maximum amount would have a “negative economic impact” or the social costs of the increase outweigh the benefits, and the Office of Management and Budget agrees. However, Assistant Secretary of Labor for Occupational Safety and Health Dr. David Michaels has long advocated for a substantial increase in penalties so it is difficult to envision the agency seeking anything other than the maximum increase.

## Increased Use of the General Duty Clause

Under the Occupational Safety and Health Act’s General Duty Clause, designated as section 5(a)(1), employers are required to protect employees from recognized workplace hazards that are correctible and likely to cause serious harm or death. Where OSHA lacks a specific standard to address a workplace hazard, the agency has increasingly used the General Duty Clause as a “gap filler” for enforcement. OSHA thus has used the General Duty Clause to cite employers for a wide range of alleged hazards and to enforce policies the agency issued through guidance documents rather than formal regulations, including ergonomics, illness due to exposure to heat and cold, arc flash/arc blast, combustible dust, chemicals and other hazardous materials for which there is no existing regulation, and fall protection.

In 2016, it is expected the agency will use the General Duty Clause to cite employers for repetitive tasks causing ergonomic issues and musculoskeletal disorders. Moreover, in light of the increasing publicity given to tragic incidents involving workplace shootings, OSHA will continue its emphasis on citing employers for workplace violence incidents and violations, particularly in some industries such as healthcare, certain retail facilities, and public transportation. Employers should maintain policies and training on these issues to prevent liability and business disruptions from OSHA’s increased use of the General Duty Clause in 2016.

## OSHA to Reduce Reliance on Permissible Exposure Limits

In a move that could drastically affect day-to-day operations at a large number of employers, OSHA has signaled in a new permissible exposure limit (PEL) request for information from



industry and other stakeholders that it plans to “revoke a small number of obsolete PELs.” Though the rulemaking did not list the PELs OSHA is considering revoking, the revocation of any PELs opens the door for greater use of the General Duty Clause to regulate employee exposure through standards that are not generally industry standards. Several commentators believe the PEL walk back is simply OSHA’s attempt to increase employer liability for more citations while avoiding formal rulemaking to establish PELs. Combined with higher fines to be implemented by August 2016, this could be seen as a new revenue stream for OSHA.

### Multi-employer Worksite Doctrine

The presence of multiple employers, contractors, consultants, and temporary workers at the same workplace is increasingly common in construction, manufacturing, and other industries. OSHA has taken note and made the prosecution of multiple employers at the same workplace a major priority. Under OSHA’s multi-employer worksite policy, more than one employer may be citable for a hazardous condition that violates an OSHA standard. This can occur even when the employer being cited had no employees exposed to the hazard in issue. The agency will use a two-step process to determine whether more than one employer is to be cited.

The first step is to determine whether the employer is a creating, exposing, correcting, or controlling employer. A creating employer, who caused a hazardous condition, is citable even if the only employees exposed are those of other employers at the site. The exposing employer, whose own employees are exposed to the hazardous condition, is citable if it knew of the hazardous condition or failed to exercise reasonable diligence to discover the condition, and it failed to take steps consistent with its authority to protect its employees. The correcting employer, who is responsible for correcting the hazardous condition, is citable if it fails to meet its obligations of correcting the condition. The controlling employer, who has supervisory authority over the worksite and the power to correct safety and health violations or require others to correct them, is citable if it fails to exercise reasonable care to prevent and detect violations on the site. In general industry, the host employer is typically the controlling employer, while in the construction industry it is the general contractor and, therefore, carries a higher compliance burden than other employers.

If OSHA determines an employer falls into one (or more) of these four categories, it will then determine whether

the employer met its obligations with regard to preventing and correcting the violation(s). It is important to note that the multi-employer worksite policy can also be utilized for criminal prosecution of employers if the following underlying elements are present: a fatality, a willful violation of a specific regulation, and a causal connection between the violation and the death. As OSHA continues its aggressive application of the multi-employer worksite doctrine, employers should be wary as to potential liabilities for contractors, temporary workers, and other non-employees at their worksites.

### Final Implementation of Hazard Communication Standards

OSHA adopted new Hazard Communication Standard safety data sheets (SDS) in December 2013. Chemical end users must be in compliance with the new SDS from up-stream suppliers and manufacturers by June 1, 2016. Employers should not simply swap in a new SDS for an old material safety data sheet (MSDS) and throw away the old MSDS. Previous MSDS should be kept on file for several reasons:

- The prior MSDS provides proof that an employer was compliant with the old Hazard Communication Standard.
- The prior MSDS can be useful evidence in defending against workers’ compensation claims by employees for occupational diseases alleged to have arisen from exposure to hazardous materials during the course of employment.
- The prior MSDS can be useful evidence in defending third-party toxic tort claims alleged to have been caused by exposure to hazardous materials that the employer may have incorporated into products manufactured and sold by the employer or by-products that are resold or distributed by the employer.

The new SDS also present an opportunity for employers to update training, hazard communication, and safety procedures for chemicals. The new SDS include 16 separate sections, some of which are similar or identical to the existing MSDS sections. There are, however, a number of significant changes and compliance challenges.

When OSHA begins enforcement on June 1, 2016, it will focus on whether the employer has reviewed the SDS to identify any new risks as well as whether it has evaluated its existing compliance programs in light of the 16 requirements in the new SDS.

*Continued on page 32*



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The Hazard Communication Standard affects nearly every employer, from chemical manufacturers to retailers to hotels whose employees work with cleaning agents. Employers need to be aware of their obligations to communicate hazards of chemical substances and must have a process for updating existing labels, SDS, hazard assessments, and training programs to comply. Here are some best practices for employers to follow:

- Employers should review the new SDS in a timely fashion upon receipt.
- If the employer does not receive the SDS in a timely manner, it should promptly communicate in writing with the manufacturer to obtain the SDS. If the employer does not receive the SDS by June 1, 2016, OSHA has indicated that it will not cite employers who show “good faith efforts” to obtain the SDS.
- Employers should evaluate the workplace using the SDS to identify hazardous chemicals and how their employees may be exposed.
- Employers whose employees work with or around hazardous chemicals must ensure that they review the updated SDS and assess each of the employer’s underlying compliance programs (e.g., emergency action plan, storage of flammable and combustible materials, PPE, respiratory protection, etc.) that may be impacted by the SDS.
- Employers should ensure that employees who work with or around hazardous chemicals are trained to recognize the pictograms and hazard warnings that will be required under the new Hazard Communication Standard. Employers should document this training and develop mechanisms to ensure that employees understand the hazards of working with or around hazardous chemicals.

### **Temporary Employees**

In 2014, OSHA implemented an initiative to protect temporary employees under the premise that those workers are not provided the same level of training and protections as full-time employees. Under this initiative, OSHA inspectors are required to ask during inspections whether the inspected worksite has temporary employees and determine whether those employees are exposed to hazardous conditions. Moreover, OSHA will also inquire during the inspection as to whether the training provided to the temporary workers is in a language and vocabulary the workers can understand. If OSHA determines that the host employer failed to provide adequate training or protections to the temporary employees, OSHA could issue citations not only to the temporary staffing agency, but also the host employer under the multi-employer worksite doctrine. In order to enforce this initiative, OSHA has hired compliance officers who are bilingual (or certified interpreters) to conduct employee interviews to determine if the employees understood the training. If the training was in English and the employee is not fluent in English, then the training is not “effective” and the employer can be cited. Likewise, if the training material is in writing and the employee is illiterate, the training may not be considered effective.

### **Potential Recordkeeping Rule Changes**

One anticipated rule would require employers to electronically submit their injury and illness records “regularly” instead of only when OSHA requests them through a formal request. With such disclosure, the OSHA 300 Log and supporting documents could be used to trigger OSHA inspections. In addition, the records would be made available to the public so anyone could see an employer’s injury and illness rates. This opens employers to risk of adverse public reaction if such information becomes available in the media without understanding the context of the records and the complexity of the recordkeeping requirements leading the public to erroneously construe the injury and illness rate as creating an unsafe workplace. This disclosure could also result in additional workers’ compensation litigation by attorneys who could utilize this information to file claims.

Even more concerning for employers is another anticipated rule that would make the recordkeeping requirements an “ongoing obligation.” OSHA is expected to interpret this change to allow the agency to cite recordkeeping violations up to five years old, well past the act’s six-month statute of limitations. This is in direct contradiction to well-established case law, including a 2012 Washington, DC, circuit decision affirming the six-month limit (*AKM LLC v. Perez*). There is hope, however, from a recent Eighth Circuit Court of Appeals case that prevents OSHA from reinterpreting a rule in such a way that is “plainly erroneous or inconsistent with the regulation” (*Perez v. Loren Cook Company*). This will be an area to which employers should pay close attention.

### **New Silica Rule Expected January 2017**

Crystalline silica particles are commonly dispersed in the air when workers cut, grind, crush, or drill silica-containing materials such as concrete, masonry, tile, and rock. OSHA estimates that 2.2 million American workers are regularly exposed to respirable silica, with most in the construction industry. Other common sources of exposure are building products manufacturing, sandblasting, and hydraulic fracturing (fracking) of oil and gas wells. Crystalline silica exposure can cause lung cancer, chronic obstructive pulmonary disease, and silicosis, an incurable and sometimes fatal lung disease.

OSHA has outlined a new silica rule as a top priority since the beginning of the Obama administration. The agency sent a draft rule to the Office of Management and Budget in February 2011 and has pledged to release a final rule by January 2017. OSHA’s silica rule will establish permissible silica exposure limits for all workers at 50 micrograms per cubic meter of air, cutting allowable exposures in half in general industry and maritime businesses, and even more in construction. The rule will also require that employers conduct periodic air monitoring, limit workers’ access to areas where exposures are high, enforce effective methods for reducing exposures, provide medical exams for workers who have been exposed to elevated levels of silica, and require worker training about silica-related hazards.

### **Enhanced Criminal Liability**

OSHA has had the ability to seek criminal liability against employers and managers since the advent of the law if a willful violation of a regulation causes the death of an employee,

although a conviction is a misdemeanor with a six-month period of imprisonment and a \$500,000 penalty for the employer and \$250,000 for an individual. This seemingly minimal criminal liability has now given rise to a recent criminal enforcement agenda announced by the Department of Justice (DOJ) on December 17, 2015, to seek additional liability against employers when there is a workplace safety violation having nothing to do with a fatality. DOJ will seek criminal penalties under other criminal laws for lying during an OSHA inspection, making false statements in government documents, obstructing justice, and tampering with witnesses. All are felonies and can result in imprisonment ranging from 5 to 20 years and enhanced monetary penalties.

With the advent of this criminal prosecution initiative, employers must be extremely careful during OSHA inspections, particularly in the aftermath of a fatality or serious injury, and not engage in any conduct that remotely approaches lying during an inspection, obstruction of justice, or tampering with witnesses. Employers must engage knowledgeable counsel at the outset to understand and avoid these liabilities.

### **OSHA's Use of the Rapid Response Form**

On January 1, 2015, OSHA's more robust reporting rules took effect, requiring employers to report all work-related inpatient hospitalizations, amputations, and losses of an eye within 24 hours of the event:

- Within eight hours after the death of any employee as a result of a work-related incident (which includes heart attacks), and
- Within 24 hours after the inpatient hospitalization of one or more employees or the occurrence of an injury to an employee involving an amputation or loss of an eye, as a result of a work-related incident.

To streamline these reports, OSHA adopted the Interim Enforcement Procedures for New Reporting Requirements, allowing the agency to triage new reports to determine whether the report warrants an inspection or a Rapid Response Investigation (RRI). Category 1 reports – including fatalities, multiple hospitalizations, repeat offenders, and imminent dangers – will automatically trigger an on-site inspection. Category 2 reports may trigger an on-site inspection if it involves two of the following factors: continued exposure, safety program failure, serious hazards, temporary workers, referrals from other agencies, and pending whistleblower complaints. If Category 2 factors are not present, the agency may initiate a RRI in lieu of an inspection.

OSHA may also initiate an RRI where the area director believes there is a “reasonable basis that a violation or hazard exists.” The agency will direct employers to find out what led to the incident and what modifications can be made now to prevent future injuries to other workers. OSHA will fax a letter instructing employers to “immediately conduct your own investigation into the reported incident and make any necessary changes to avoid further incidents,” and complete a Non-Mandatory Incident Investigation form attached to the letter. The employer's report and investigation will be used by the agency to determine whether to conduct its own inspection. A word of caution: these rapid response forms could be used against employers as admissions of liability for a violation of a regulation as well as grounds for OSHA to find

a “willful” violation if the employer responds in a way that it appears to admit prior knowledge of the hazard that could be an “admission” of liability. Accordingly, as rapid response forms are increasingly used in 2016, employers should write only limited, careful responses and avoid any language that might support an admission. Employers must preserve attorney-client privilege in the conduct of their underlying root cause analysis investigation and disclosures on the forms, and seek the advice of counsel where necessary.

### **How to Deal with an Aging Workforce**

According to the Bureau of Labor Statistics, one in every five American workers is over 65 years old and by 2020, one in every four will be over 55. Though the overall effects of an aging workplace are not entirely clear, OSHA has begun to analyze the potential hazards associated with these employees and will likely propose guidance. Following are precautions employers should take to protect aging employees:

- Workstations and job tasks must be matched to the needs of the individual employee.
- Older workers tend to have fewer accidents, but when they do, the injuries tend to be more severe resulting in a longer recovery time.
- Older workers tend to experience more back injuries.
- Older workers are more likely to develop musculoskeletal injuries because they have been performing repetitive motions for a longer period of time.
- Muscular strength and range of joint movement may decrease.
- Vision and hearing challenges may be more prevalent in older workers.

### **Midnight Regulations and Interpretations**

As with any outgoing administration, there is always the potential for “midnight regulations,” often implemented through rulemaking in the waning days of an administration, particularly after an election. Though Obama will not leave office until January 20, 2017, employers should prepare for last-minute regulations or potential executive orders that may have lasting effects on employers. For example, under the Clinton administration, OSHA issued an ergonomics rule shortly after the 2000 election that Congress was forced to repeal shortly after President George W. Bush took office in January 2001. The likelihood of midnight regulation under Obama depends heavily on which party wins the presidency in November 2016. To avoid potential political fallout for a new administration, OSHA will likely implement any new regulations as early as possible in 2016.

### **Conclusion**

The first seven years of the current administration have been very challenging for employers under OSHA and other employment laws. This year may be the most challenging yet as the current administration wants to promote its agenda in the waning days of its authority. The president has said he intends to “leave it all on the field” as to his agendas, which means that employers must continue to be vigilant, keep informed, and respond properly.

**R**

## Rendering Legend Bisplinghoff Dies

The rendering industry lost one of its greatest members in December 2015. Dr. Fred D. Bisplinghoff, who was affectionately known as “Dr. Fred,” died from complications of pneumonia at the age of 91.

Bisplinghoff graduated from the University of Missouri in 1951 with a bachelor of science in animal nutrition and a doctorate in veterinary medicine. He was a large-animal practitioner until 1956 when he joined Faber Industries, an Illinois rendering company with six plants. He served as general manager for the company’s animal feed, solvent extraction, and fat and protein blending operations until 1959 when he became executive vice president managing all rendering operations. After Faber was purchased by National By-Products in 1965, Bisplinghoff assumed responsibility for all former Faber facilities, which included a barge terminal and hide operations. At the time of his retirement from National By-Products in 1985, he had supervised all of the company’s operations in Illinois, Indiana, Ohio, Kentucky, Tennessee, and eastern Missouri, and had served in many rendering association positions, including as National Renderers Association (NRA) president from 1971 to 1972.

After retiring, Bisplinghoff consulted for Holly Farms Poultry and simultaneously filled three positions in rendering associations for five years, including president and technical director of the Fats and Proteins Research Foundation (1988-1993), director of NRA Scientific Affairs (1988-1993), and president of the Animal Protein Producers Industry (1983-1993). From 1993 to 2006 he consulted for 11 rendering companies and was a contributing author on *The Original Recyclers* book published by NRA in 1996.

Bisplinghoff was honored in late October with the NRA Don Franco Distinguished Service Award for his meritorious service to the rendering industry.

## European Rendering Leader Dies

Gordon Braide, a major figure in the United Kingdom (UK) and European rendering industry for over 40 years, died in early January. He was 76.

Braide began working for Prosper de Mulder (now Saria) in 1970 and retired 43 years later in 2013. He also served as chairman of the UK Renderers Association from 1998 to 2008.

“Gordon had a large and positive personality to go with his astute style of management of the industry leaders,” recalled Stephen Woodgate, Beacon Research in the UK. “Those in the European rendering industry remember him as a great leader who inspired loyalty and respect both at the business executive level and within the trade associations he was involved with and led, especially during the bovine spongiform encephalopathy crisis.”

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## American Proteins Names President

Mark Ham has been named president of American Proteins Inc. He joined the Cumming, Georgia-based rendering company in 2011 as director of business development for three years before being promoted to vice president of business development.

Ham’s experience in the poultry industry has spanned nearly 40 years. He worked in various positions at Cagle’s Inc. for 35 years, most recently as executive vice president/chief financial officer. Ham also served on the Georgia Poultry Federation Board, including as its chairman, and the Tennessee Poultry Association Board.

## Keystone Hires New President

Keystone Foods has named Devin Cole president of Keystone US, overseeing the company’s poultry, beef, and fish businesses in North America. Cole is a food industry veteran with 20 years’ experience, most recently as chief commercial officer at Tyson Foods Inc.

## Simmons Building New Pet Food Ingredient Facility

Simmons Feed Ingredients, an affiliate of Simmons Foods Inc. and Affiliates, has broken ground on a new 89,125-square-foot pet food ingredient facility in Siloam Springs, Arkansas. The company plans to invest approximately \$26 million in the facility where it will produce fresh and frozen meat ingredients for pet food manufacturers.

Founded in 1949, privately-owned Simmons Foods employs over 1,200 people at its Siloam Springs operations, which produces poultry, pet food, and ingredient products. The company also operates a feed ingredient facility in Southwest City, Missouri.

## Dupps Awarded for Healthy Worksite

The Ohio Department of Health and Healthy Ohio Business Council have recognized The Dupps Company with its highest honor, the 2015 Healthy Ohio Healthy Worksite Gold Award. The award recognizes employers who best demonstrate a commitment to their employees' good health through worksite health initiatives and wellness programs. Dupps is the only small manufacturing business (300 employees or less) to receive this prestigious award.

"Everyone at our company is to be congratulated for creating a wellness culture that makes The Dupps Company one of the healthiest worksites in the state of Ohio," said Jim Vose, director of human resources. Among the company's wellness initiatives is a comprehensive program of healthy activities, on-site health screenings, in-house doctor care, wellness counseling, and financial incentives for maintaining a healthy lifestyle.

## Frontline Honored with Innovation Award

Frontline International, a leading provider of smart oil management systems for foodservice operators, has won a Takeaway Innovation Award at the Takeaway Innovation Expo 2015 in London, United Kingdom. Frontline's equipment was nominated for an award by Bensons Products Ltd., the sole distributor of Frontline equipment in the United Kingdom.

Frontline's entire line of customizable fresh and waste oil solutions was recognized with the Innovation Award, which is described as "a celebration of an idea which has truly pushed the boundaries of design and service. The Innovation Award recognizes the concept that combines an unprecedented blend of creativity and uniqueness to the food sector."

## February

### Aquaculture 2016

February 22-26, Las Vegas, NV • [www.was.org](http://www.was.org)

### 5th Annual California Biodiesel Conference

February 24, Sacramento, CA • [www.californiabiodieselalliance.org](http://www.californiabiodieselalliance.org)

### Pacific Coast Renderers Association 84th Annual Convention

February 26-28, Carmel Valley, CA • E-mail Marty Covert at [co@martycovert.com](mailto:co@martycovert.com) or call (703) 754-8740

## March

### National Grain and Feed Association Annual Convention

March 13-15, San Diego, CA • [www.ngfa.org](http://www.ngfa.org)

### World Bio Markets Conference

March 14-17, Amsterdam, the Netherlands • [www.worldbiomarkets.com](http://www.worldbiomarkets.com)

## 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](http://www.petfoodforumevents.com)

### National Renderers Association Spring Meeting

April 19-21, Reynolds Plantation, Greensboro, GA • E-mail Marty Covert at [co@martycovert.com](mailto: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](http://www.nistm.org)

## May

### 107th American Oil Chemists Society Annual Meeting and Expo

May 1-4, Salt Lake City, UT • [www.annualmeeting.aocs.org](http://www.annualmeeting.aocs.org)

### Animal Agriculture Alliance Stakeholders Summit

May 5-6, Arlington, VA • [www.animalagalliance.org/summit](http://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 [co@martycovert.com](mailto:co@martycovert.com) or call (703) 754-8740

### American Meat Science Association 69th Reciprocal Meat Conference

June 19-20, San Angelo, TX • [www.meatsscience.org](http://www.meatsscience.org)

Log on to [www.rendermagazine.com](http://www.rendermagazine.com) for an updated listing of industry meetings.

## EQUIPMENT/SERVICES

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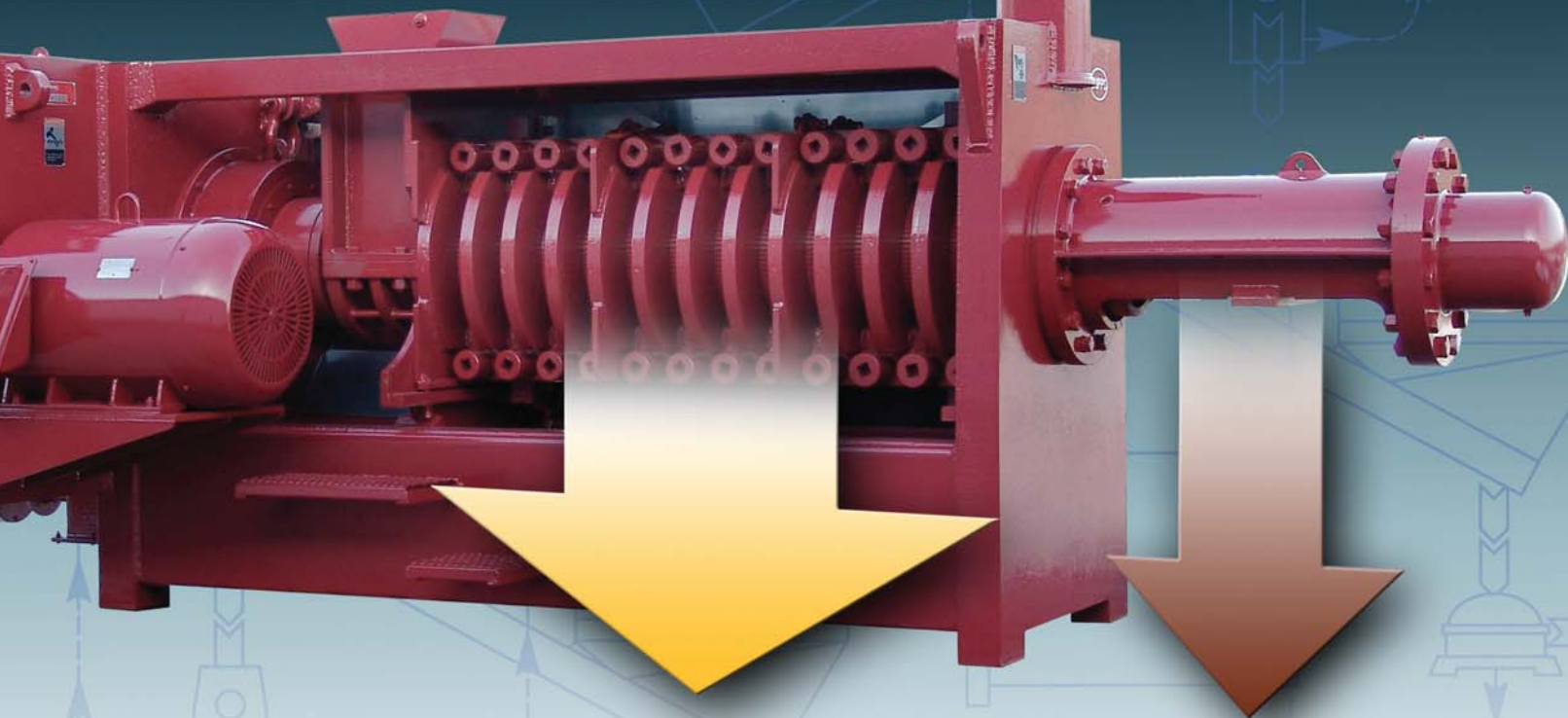
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## Industry Websites

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