

The International Magazine of Rendering

June 2018

# Render

## Pet Food and Rendering

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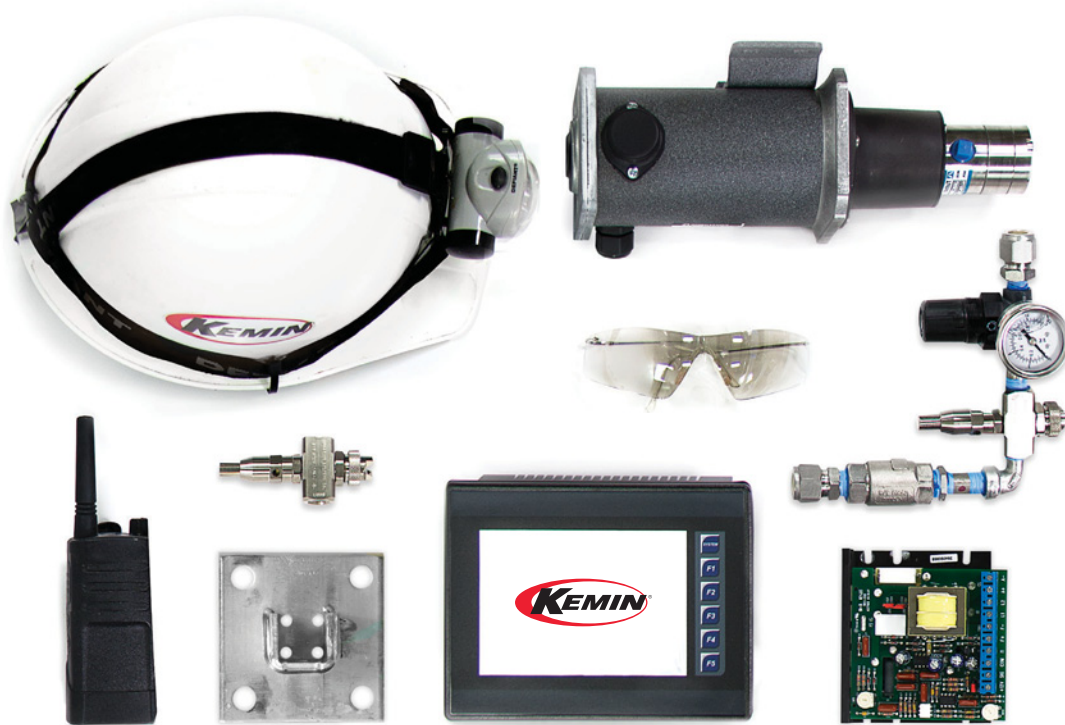
### One, Two, Three Buyouts

### Renderers Closely Watch Trade Discussions



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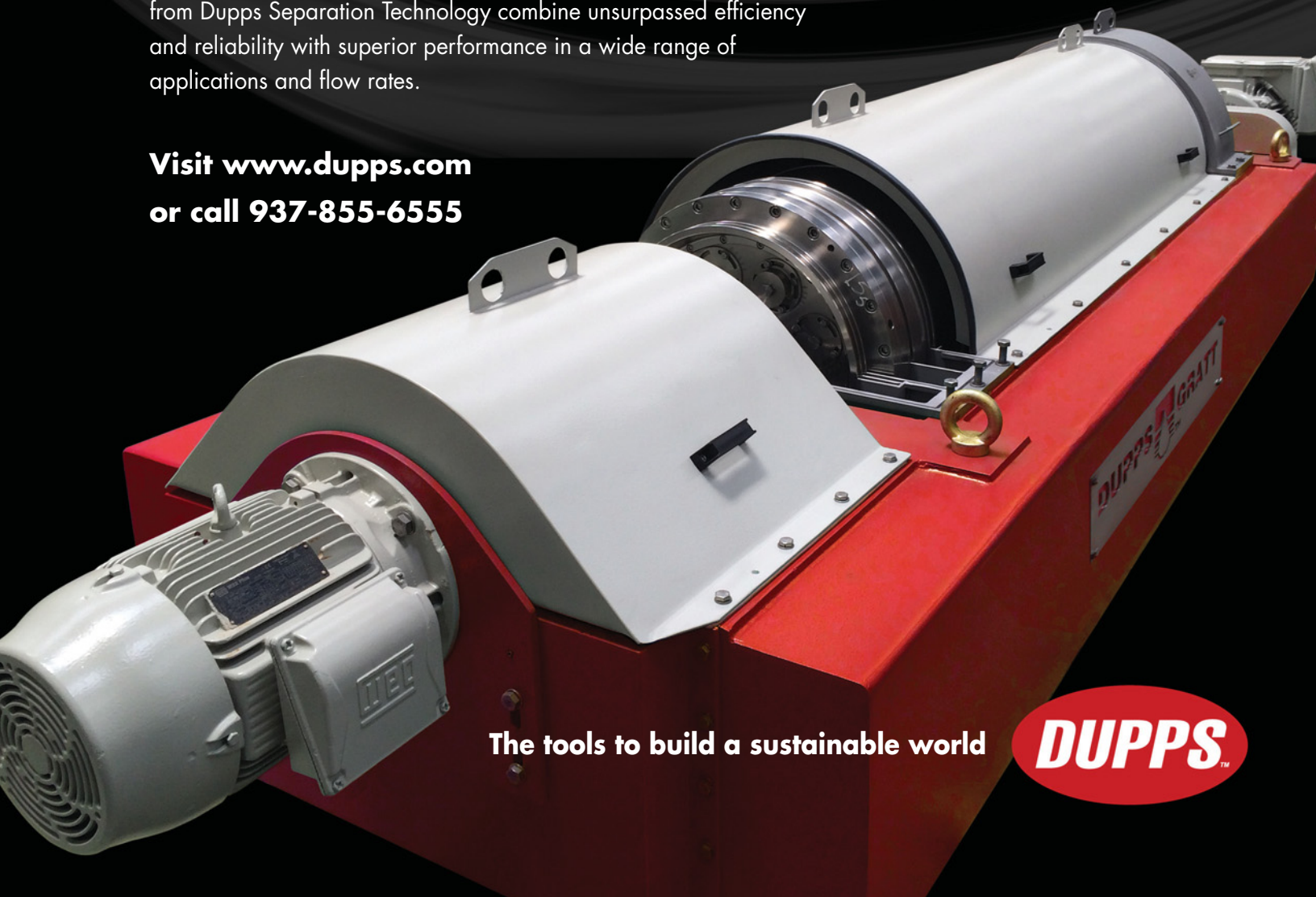
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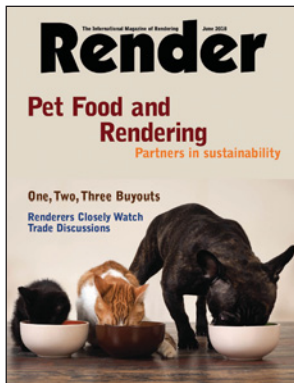
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**On the Cover** p. 10  
*Rendered products play a pivotal role in improving the sustainability of pet food.*

## Features

- 10** **Pet Food and Rendering**  
*Partners in sustainability*
- 14** **Renderers Closely Watch**  
*Trade discussions*
- 18** **APPI Membership**  
*Continuous improvement*
- 21** **Sustainability and the Next Generation**  
*Are rendering's future*

## Departments

- 6** **View from Washington**  
*Farm bill debacle is in the House.*
- 8** **Newsline**  
*One, two, three buyouts.*
- 22** **From the Association**  
*The next generation of renderers.*
- 24** **Biofuels Bulletin**  
*Ongoing debate over existential threat to the RFS.*
- 26** **ACREC Solutions**  
*Reactive conversion of fats from DAF sludge.*
- 27** **Mark Your Calendar**
- 28** **International Report**  
*European congress approaching fast.*
- 30** **Labor and the Law**  
*Avoiding OSHA liability in a hazard inspection.*
- 32** **Tech Topics**  
*EPA continues to change course.*
- 34** **People, Places, and...**
- 36** **Classifieds**

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# Renderitorial

These are busy times in the rendering industry. Several major acquisitions this spring mean consolidation will help companies remain viable and sustainable moving forward. American Proteins, National Beef, and Kruger Commodities all have new owners (see Newsline on page 8), giving these producers a stronger foothold in the ever-challenging world of competitive and changing markets along with increased regulations.

Pet food manufacturers know the importance of including animal proteins and fats in their feed formulations, yet consumers are increasingly demanding more protein, transparency, and sustainability in the food ingredients of their companion animals. Pet food companies are encouraged to know that rendered products not only meet these needs but also make their businesses more sustainable with further work validating this claim on the horizon.

As many long-time, industry-leading renderers start reaching the goal of retirement, finding and nurturing future rendering leaders is keeping the industry on its toes. The National Renderers Association (NRA) is actively pursuing ways to encourage involvement of the next generation of renderers in future meetings and activities. The shared viewpoint of one such next-gen individual in this issue shows that young adults today know nothing about the rendering industry and the meat production it supports.

Export markets for United States (US) and Canadian renderers remain challenged, yet opportunities abound thanks to the hard work NRA has done over the years. Mexico could be on the verge of importing more protein meals, while the United Kingdom's increased renewable fuel mandate will create increased demand for used cooking oil and tallow, the predominant feedstocks used for biodiesel production in that country.

On this side of the pond, debate continues on the US federal government's continued support of biofuels, although individual states like Minnesota and Iowa remain committed to alternative fuel by increasing mandates and funding.

Happy busy summer!

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## Farm Bill Debacle is in the House

When the 2018 farm bill hit the United States (US) House of Representatives floor in mid-May, Speaker Paul Ryan (R-WI) rolled the dice and got into a staring match with far-right House Freedom Caucus Chair Mark Meadows (R-NC). Unfortunately, Ryan blinked and the controversial House farm bill failed on a 198-213 vote.

The political slap to both GOP leadership and Agriculture Committee Chair Mike Conaway (R-TX) had less to do with Republican moves to reform the federal nutrition (i.e., food stamp) program—part of Ryan’s “Better Way” agenda to federal welfare reform—and everything to do with the Freedom Caucus exercising its political leverage to force the House to turn to its legislative agenda and not Ryan’s. If nothing else, the House farm bill spectacle is a case study in how a fractured party caucus easily turns into a circular firing squad, causing the maximum number of political casualties by friendly fire.

The farm bill is a very big deal, not just for farmers and ranchers but also for agribusiness, food companies, and the industries that rely upon them. The law touches the price of just about every ingredient and material used in food for both man and animal, here and abroad.

Every five years Congress must reinvent the underlying federal laws providing U.S. Department of Agriculture (USDA) authority for everything from farm income support to crop insurance, export promotion, research, animal and plant health, and federal nutrition programs. The House version of this year’s omnibus farm program rewrite carries an \$867-billion, 10-year price tag. The 2018 version now under construction on both sides of Capital Hill will ultimately keep farmers and ranchers—the industries that rely upon these programs—economically viable for the next half decade (or, at least, that is the plan).

If Congress does not enact a new farm bill by midnight on September 30 (Congress is gone for a full week in early July and all of August for summer recess), current law will be extended for one full year. That means programs fashioned in 2012-2013, when farm income was healthy and world markets were generally open, will remain in place; however, current programs not designated for specific mandatory funding authorization under current law shut down until a new farm bill is signed by the president. That list includes export promotion programs such as the Foreign Market Development (FMD) program as well as bioenergy, research, and conservation programs.

Farm bills are always contentious, frustrating, and/or confusing to one degree or another, but disputes, at least historically, are generally not Republican versus Democrat so much as Midwestern states versus the deep South and major grain and oilseed producers versus cotton and specialty crop farmers. The debates center broadly on division of the federal spending pie and typically result in duke outs over the equity of federal dollars being doled out, as well as the inclusion or

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**The overarching challenge facing both House and Senate Agriculture Committees is how to find a way to pay for existing farm income safety net programs, newly modernized projects, as well as other USDA endeavors.**

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exclusion of various crops from government income support programs.

The House, first out of the gate with its farm bill rewrite, has been seriously hamstrung by partisan politics from the get-go, marked by bad procedural decisions, a fractured Republican caucus, and the GOP leadership’s zeal to reform federal welfare programs as it polishes farm programs. All while Congress runs up to the November midterm elections.

By comparison, the Senate farm bill draft is the political equivalent of a bipartisan group hug. So far, no partisan and intraparty drama (like that in the House) has occurred, though Senate ag leaders cite serious funding constraints for a stay-the-course formula. Farm bill cynics, however, accuse the Senate of lacking the political will to stage a full-on, old-fashioned farm bill rewrite.

The overarching challenge facing both House and Senate Agriculture Committees is how to find a way to pay for existing farm income safety net programs, newly modernized projects—such as Senate ag panel ranking member Senator Debbie Stabenow’s (D-MI) “urban agriculture” agenda (i.e., hydroponics, “vertical” cropping, etc.)—as well as other USDA endeavors. Federal dollars are tight and there is a fast-growing down-on-the-farm need, given that the 2018 economic reality on farms is downright painful.

Says USDA’s Economic Research Service: “Net farm income...is forecast to decrease \$4.3 billion (6.7 percent) to \$59.5 billion in 2018, the lowest level in nominal terms since 2006. Net cash farm income is forecast to decrease \$5.0 billion (5.1 percent) to \$91.9 billion, the lowest level since 2009. In inflation-adjusted (real) 2018 dollars, net farm income is forecast to decline \$5.4 billion (8.3 percent) from 2017; if realized, this would be the lowest real-dollar level since 2002.”

Ignoring the political rhetoric, both Conaway and his Senate ag committee counterpart, Chairman Pat Roberts (R-KS), share a simple goal: protect farm income support programs and federal crop insurance, with the rest of the farm bill to be dealt with as available budget and politics will allow. President Donald Trump has publicly endorsed the House farm bill; however, that endorsement is seen carrying very little weight with lawmakers of either party.

When Conaway introduced the Agriculture and Nutrition Act of 2018, he said, “Rural America is hurting. Over the last five years, net farm income has been cut in half. Natural



disasters and global markets distorted by predatory trade practices of foreign countries, including high and rising foreign subsidies, tariffs, and non-tariff barriers, have resulted in huge production losses and chronically depressed prices that are today jeopardizing the future of America's farm and ranch families. The farm bill keeps faith with our nation's farmers and ranchers through the current agriculture recession by providing certainty and helping producers manage the enormous risks that are inherent in agriculture."

The House Agriculture Committee-approved farm bill, as it went to the floor, was about 95 percent politically noncontroversial in that income support programs were tweaked to broaden eligibility and sweeten participants' USDA checks, and federal crop insurance was protected. The bill as written would relax payment limitations in the commodity title, combine conservation programs and reduce spending on conservation, shift energy programs to a new title, and authorize funding of \$255 million annually through fiscal year 2023 to create a new International Market Development Program. The Market Access Program (MAP) and FMD that benefit the National Renderers Association and other ag groups would continue to be funded "at no less than \$200 million and \$34.5 million annually" (same as current funding).

Unfortunately, the farm bill also includes Title IV, the nutrition title, and it is this title that helped to scuttle the House effort in mid-May. This section of the bill lays out the authority for and operation of various federal programs focused on ensuring all citizens, including many children, get fed on a daily basis. The nutrition title encompasses the federal food stamp program, the Women, Infants, and Children feeding program,

as well as various federally subsidized meal programs, such as school breakfasts and lunches. The broad change the GOP seeks in this section of the farm bill is to require "able-bodied" recipients in the Supplemental Nutrition Assistance Program (SNAP) to work or take job training at least 20 hours a week. Democrats are up in arms, contending this will toss 1.2 million recipients off the SNAP rolls.

Speaker Ryan called the farm bill his party's "next big push," acknowledging the bill's nutrition title is all about the broader GOP agenda as outlined in 2016's Better Way election campaign plank on broad social welfare program reform. He said the farm bill will help move SNAP recipients out of poverty and into employment because "for too long, vague and unenforceable requirements have discouraged work and left many good jobs unfilled. This farm bill helps recipients get from where they are to where they want to be," referring to gainful employment.

Organized opposition to the House farm bill was not limited to Democrats upset with food stamp changes. Several major far right organizations have been frustrated that existing commodity support programs, crop insurance, and conservation programs were not modernized. Heritage Action, the political arm of the conservative Washington, DC, think tank Heritage Foundation, was joined by 13 other groups in formally opposing the House bill.

"Respect for farmers doesn't mean tolerance for wasting taxpayer money on handouts," said a letter signed by the 14 groups vowing to target "farm subsidy reform." At the same time,

*Continued on page 9*

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# One, Two, Three Buyouts

Consolidation within the United States (US) meat processing and rendering industries was in full swing this spring with the acquisitions of a large poultry renderer, Midwest renderer and grease collector, and beef producer.

Subsidiaries of Tyson Foods Inc. have agreed to buy the poultry rendering and blending assets of American Proteins Inc. and AMPRO Products Inc. The purchase means Tyson Foods will be able to recycle more animal products for feed, pet food, and aquaculture, among other things, and expand its presence in the growing animal feed ingredient business. The agreement is subject to customary closing conditions, including regulatory approval.

The acquisition includes four rendering plants located in Georgia and Alabama and 13 blending facilities located throughout Southeastern and Midwestern states. The facilities are expected to provide additional capacity to Tyson's current animal by-products business. Approximately 700 people work for American Proteins and most are expected to become Tyson Foods team members.

"Rendering plays a key role in growing our business and helping us deliver on our sustainability goals," said Tom Hayes, president and chief executive officer (CEO) of Tyson Foods.

"This acquisition is a great complement to our existing business, gives us the ability to render raw materials in a region we don't currently serve, and better positions us to meet the competitive, fast-growing national and global demand for animal protein," stated Doug Ramsey, group president of poultry for Tyson Foods.

Mark Ham, president and CEO of American Proteins commented, "We value and appreciate our 700-plus employees as well as the relationships we have with our suppliers and customers, and are confident that after the transaction closes the Tyson team will offer them the same commitment to service and quality as provided by American Proteins."

The purchase price is approximately \$850 million. Over the next 12 months, the business is expected to generate adjusted net sales of more than \$550 million.

In May, Darling Ingredients Inc. acquired the assets of Kruger Commodities Inc., including protein conversion facilities in Hamilton, Michigan, and Tama, Iowa, along with a protein blending operation and used cooking oil collection business in Omaha, Nebraska. The purchase will support Darling's low carbon fuel initiative at Diamond Green Diesel in Norco, Louisiana.

"We are pleased to have the opportunity to add the Kruger Commodities operations to Darling's global platform," said Randall C. Stuewe, Darling Ingredients chairman and chief executive officer. "This long established, family-owned business is a natural fit to the Darling network and will help us to better serve our customers and growing feedstock demand from Diamond Green Diesel."

Within the meat industry, the owners of National Beef Packing Company LLC have entered into a membership



interest purchase agreement with NBM US Holdings, an indirect subsidiary of Marfrig Global Foods S.A., under which NBM will acquire 51 percent of the outstanding ownership interests in National Beef. The operations and management of National Beef will remain unchanged with Tim Klein continuing as president and CEO upon completion of the transaction, expected to close in the second quarter of 2018. The current owners of National Beef will remain owners under the new structure. The transaction is subject to certain limited conditions and will require customary regulatory approvals.

"The acquisition of a majority interest in National Beef represents a unique opportunity for us," commented Marfrig Chairman Marcos Molina and CEO Martín Secco. "With this transaction, we will have operations in the world's two largest beef markets, will gain access to extremely sophisticated consumer countries, and will be able to grow while maintaining rigorous financial discipline. We're enthusiastic to be part of this successful history and look forward to joining the National Beef team."

"I am excited to welcome the Marfrig group as a partner in National Beef," added Klein. "Their broad global food platform will further strengthen our efforts to build our brand in new and existing markets as the demand for high quality US beef grows."

Marfrig Global Foods, one the world's leading producers of animal protein, is formed by its beef and Keystone divisions. It has 50 production, sales, and distribution units in 12 countries. The beef division is one of the world's largest producers, Brazil's second-largest beef operation, Uruguay's leading beef processor, and Chile's largest beef importer, where it also processes lamb. With 31 plants in Brazil, Uruguay, and Chile, the division has the capacity to process up to 4.7 million head of cattle.

Marfrig's Keystone division is one of the world's leading producers of processed animal protein products. The company operates 19 production units in the United States, China, Malaysia, Thailand, South Korea, and Australia. Together, the two divisions sell around one million tons of food annually.

Based in Kansas City, Missouri, National Beef has operations in Liberal, Dodge City, and Kansas City, Kansas; Hummels Wharf, Pennsylvania; Moultrie, Georgia; and St. Joseph, Missouri. With approximately 8,200 employees, the company processes and markets fresh beef, case-ready beef and pork, beef by-products, and wet-blue leather for domestic and international markets. In fiscal year 2017, National Beef generated sales of \$7.4 billion. **R**

the rightist Americans for Prosperity and Freedom Partners told Congress the bill “moves away from free market principles.”

Adding insult to injury, Conaway had to endure an eleventh-hour move. Conservative GOP lawmakers threatened to kill the farm bill unless Ryan gave them his pledge to bring to the floor former ag committee chair Representative Bob Goodlatte’s (R-VA) controversial immigration reform measure, a move not closely related to agriculture and destined to fail. Ryan refused. House Agriculture Committee ranking minority member Representative Collin Peterson (D-MN) said the increasingly vocal conservative opposition to the bill and the conservative rebellion over immigration—obviously a bigger priority to them than the omnibus farm bill—is evidence “the clear and present danger to the farm bill comes from the Republicans, not the Democrats.”

Such challenges threatened to derail or seriously delay this year’s effort in a replay of the vaunted 2012 legislative effort. The 2012 farm bill—coming up to the last amendment vote on the last day of nearly three days of floor debate and amendments with a clear path to approval—was taken down over an amendment to require some able-bodied federal food stamp recipients to work to remain eligible for the program. Never before had a farm bill failed so dramatically. House leadership pulled the nutrition title out of the farm bill, approved it separately, did likewise with the farm program section, merged the bills on the floor, approved the new bill, and sent a full farm bill package to conference with the Senate. That process, conference committee action, and individual

chamber approval of the ultimate conference product took nearly two years to complete, so it is understandable that the prospect of repeating history is nerve-wracking for most farm bill stakeholders.

Also complicating the effort—and as testimony to the unique political climate in which Washington, DC, operates these days—producers normally salivating over income support program rewrites and new and improved crop insurance perks are less enthused about this year’s farm bill wrangle. They desperately want a return to normalcy in federal trade policy. National crop and livestock producer groups are so off-balance from US-China tariff tirades (and on-going talks), Trump’s ambivalence over the North American Free Trade Agreement rewrite, a big “maybe” new bilateral deal with Japan, and whether the United States will rejoin the Trans-Pacific Partnership that the evolution of the farm bill is a second priority.

Major national commodity groups, with the exception of the National Farmers Union, generally praised the farm bill approved by the House committee and debated on the House floor. The commodity title of the bill is, for once, mostly noncontroversial, tweaked to broaden eligibility and sweeten farm benefits. Secretary of Agriculture Sonny Perdue also commended Conaway and the committee, saying the approved legislation “closely aligns with the farm bill principles released by USDA in January.”

So-called food stamp/welfare reforms demanded by House GOP leadership, however, erased the political comity

*Continued on page 16*

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## Partners in Sustainability

By Elisabeth Huff-Lonergan, PhD, Mariana C. Rossoni Serao, PhD, and Kurt Rosentrater, PhD  
Iowa State University

**P**et food production is an attractive industry to be involved in primarily due to its rapid growth as sales continue to increase each year. It is also a very complex market as processors have to produce an affordable product that balances the needs of the animals consuming the food with product characteristics desired by the purchasers—the owners of the pets. The metabolisms of dogs and cats are somewhat similar to monogastric livestock, like poultry and swine, but with their nature as carnivores (cats) or omnivores with tendencies toward carnivore diets (dogs), nutritionists must pay special attention to these animals' protein requirements.

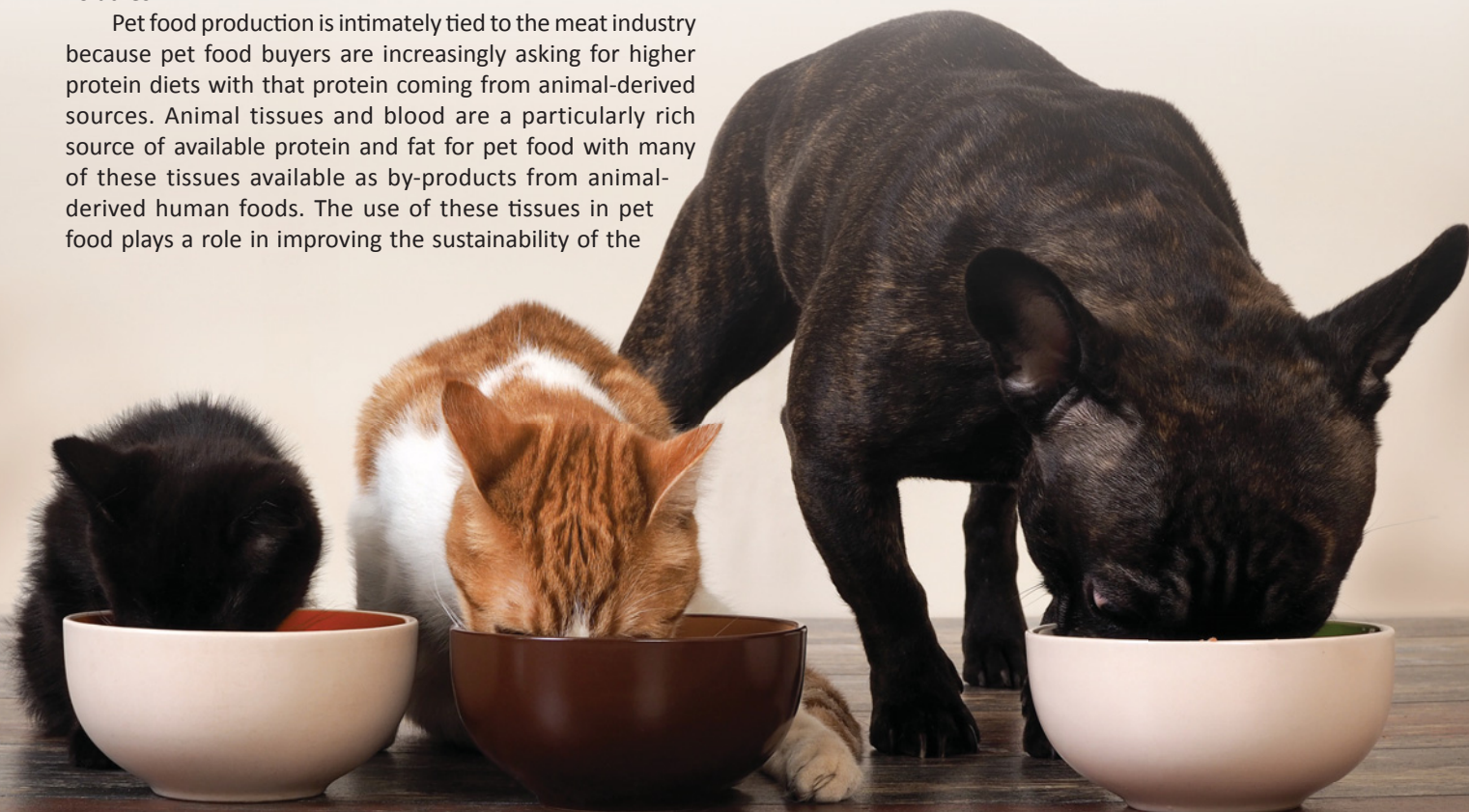
Rendered animal products have been a major contributor of proteins and fats in pet food for many years. When compared with plant sources of protein, animal-derived rendered products provide protein with a higher biological value as it contains a more appropriate amino acid balance. Fat is as crucial as protein in companion animal diets and with most of the fat added to pet food coming from animal sources, the essential fatty acids are provided. A common purpose of including rendered fats in pet food is to provide an energy-dense ingredient to a balanced diet. Other important functions of rendered fats include serving as coating agents in dry kibble to increase palatability and to carry flavor components and volatiles.

Pet food production is intimately tied to the meat industry because pet food buyers are increasingly asking for higher protein diets with that protein coming from animal-derived sources. Animal tissues and blood are a particularly rich source of available protein and fat for pet food with many of these tissues available as by-products from animal-derived human foods. The use of these tissues in pet food plays a role in improving the sustainability of the

meat industry by finding valuable uses for these products in pet food diets. Understanding the impact the added value of animal by-products used in companion animal diets has on the meat processing system helps the entire industry responsibly manage resources and benefits the entire product stream. Importantly, the use of rendered by-products from the meat industry in pet food aids in maximizing the use of animal products and thus helps limit water and land use, and the carbon footprint of meat production.

The impact the use of rendered products has on the meat industry is significant. Over 155 million cattle, pigs, and sheep, and over 10 billion chickens and turkeys are harvested for food annually in the United States (US). The vast majority of products that do not go into the human food stream are rendered. These products include bones, fat, blood, feathers, many internal organs, and some meat trimmings. In total, roughly 50 percent of a food-producing animal is thought of as inedible or at least is not preferentially consumed by US consumers. Many of these products are rich in protein and fat and have valuable uses in pet food production.

Much like the human food industry, pet food manufacturers are very attuned to evolving consumer expectations. In recent years, there has been growing demand for specific information



regarding the multiple facets of pet food. Of particular interest is the health aspect, including ingredients used, sources of ingredients, production practices used on farms and in pet food manufacturing plants, and so on. Consumers are also keenly aware of the food safety aspect and the potential for food recalls. In addition, today's consumers are highly interested in the sustainability of these products.

Pet owners scrutinize product labels and company information very carefully. Along with the nutritional content of their companion animals' diets, consumers are increasingly more concerned about processing and the implications for sustainable products throughout their life cycle. Certainly this is a trend that is not limited to the pet food industry but instead encompasses the entire food production system, both for humans and their companion animals. It is important to understand that the value of rendered products in pet food contributes greatly to the sustainability of several enterprises, including livestock, poultry, and meat production operations.

Sustainability is a term that appears ubiquitously these days, but it can have very diffuse and multiple meanings, especially in the marketing arena. To provide clarity in the marketplace, it is becoming very common to numerically assess sustainability in terms of three specific lenses.

The three pillars of sustainability—environmental, economic, and social—are usually quantified throughout the entire supply chain. Assessing economic sustainability answers questions about both costs to consumers and costs of production. Examining social sustainability provides a look at how production, processing, and use of various products impact job creation, quality of life, and social opportunities for people. Environmental sustainability, however, is the one facet that most people think about first—what is being consumed or released into the environment as a consequence of the products grown, manufactured, and used. These impacts often include greenhouse gas (GHG) emissions but can also comprise acidification and eutrophication of water bodies and the atmosphere, and release of carcinogens, toxic compounds, and smog-forming chemicals as well as other pollutants.

In order to fully understand the true impact of any of these three pillars, each stage of a product's life must first be examined. Figure 1 illustrates how each of these stages is typically denoted. All things considered, this approach is often termed the "cradle-to-grave life cycle" for a product. Because all aspects throughout a product's life will have various

impacts on the environment (or economy or social arena), in order to numerically quantify these impacts, the life cycle assessment (LCA) methodology is most frequently used to provide a comprehensive analysis. LCAs can show where the greatest environmental impacts occur, whether on the farm, during manufacturing or transportation, or at the moment of consumer use or disposal. Every manufacturer and every product that a company produces will result in a different overall environmental footprint, and each will have unique contributions throughout the various life cycle stages.

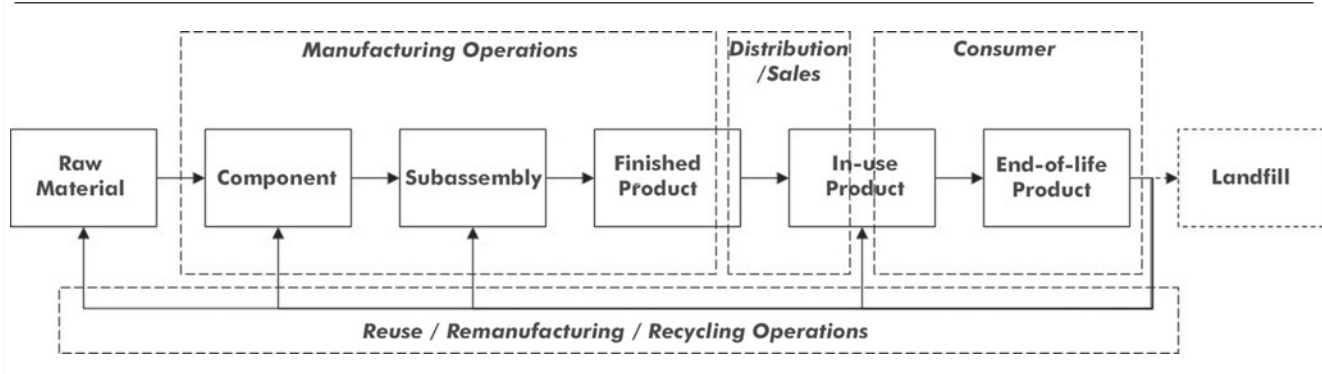
Research has shown that for most food and feed products in the marketplace, processing operations certainly contribute to environmental impacts. Many processing plants have effectively pursued initiatives such as improving water recycling, replacing incandescent or mercury vapor light bulbs with light-emitting diodes, establishing better thermal utilization, utilizing other energy and water saving technologies, and installing improved heat exchangers, better instrumentation, and/or control systems. All of these gains in efficiency reduce the overall environmental impact of processing operations. Transportation will also affect the environment due to fuel combustion emissions generated during material transport from a farm to a processor, among ingredient and final processors, and to warehouses, stores, and ultimately the home.

Consumer use and waste disposal also contribute to the environmental burden of a product. Household, food service, and institutional food waste that end up in landfills ultimately becomes methane, which is a GHG. For most processed products, however, the greatest environmental impact results from agricultural production. This is true for ingredients from both animals and plants, thus the ingredients used in food or feed products often have the most significant impact on an environmental footprint.

For example, figure 2 shows results from a simple LCA of beef (using zero versus 1,000 miles of transportation, zero percent waste). For each one pound of beef meat produced, the figure shows that transportation has a minor impact on GHG emissions—agricultural practices make the biggest difference. Pasture-raised cattle (7.48 kilograms of carbon dioxide per pound of beef) have approximately 6.5 percent lower GHG emissions than feedlot-raised cattle (8.0 kilogram of

*Continued on page 12*

**Figure 1. LCA is a methodology used to comprehensively understand environmental sustainability of a product or ingredient from cradle to grave**



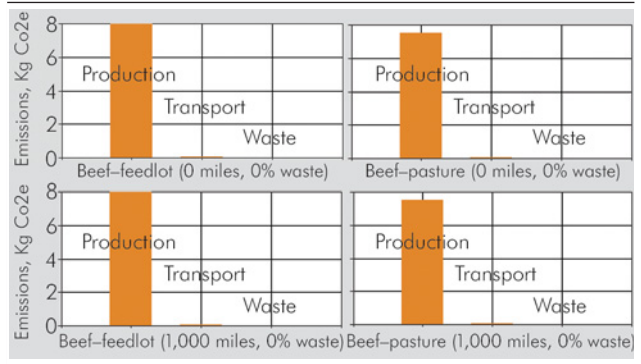
carbon dioxide per pound of beef). The production of the cattle themselves produces approximately 99 percent of the GHGs. If another ingredient is considered, there will be completely different results. Figure 3 illustrates an LCA for corn. It can be seen that both transportation as well as waste quantity can result in significant changes to GHG emissions and that both of these categories are on par with that of the production phase. This type of result is typical and each ingredient will have very unique results.

In order for companies to provide a true environmental footprint of their products, an LCA must be conducted. These assessments can be a complex task, especially since for each ingredient in a formulation the life cycle of each ingredient throughout its entire supply chain must be taken into account. When formulations change, the LCA footprint will change as well.

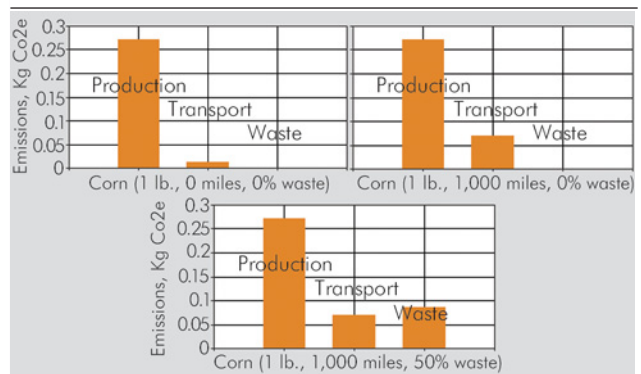
At this point in time, there is limited information available on the LCA of feed ingredients as most of the data is limited to primary ingredients (i.e., human food products). There are plans to change this in the near future, however, and provide the pet food industry with much needed LCA information on rendered animal products since these play a pivotal role in improving the sustainability of pet food and also of the meat and livestock production industries. **R**

*Huff-Lonergan and Seroa work in Iowa State's Department of Animal Science, and Rosentrater works in the university's Department of Agricultural and Biosystems Engineering.*

**Figure 2. Example output from LCA for one pound of beef with no consumer waste, and either zero or 1,000 miles transportation distance**



**Figure 3. Example output from LCA for one pound of corn with differing transportation distance and consumer waste levels**



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# Renderers Closely Watch

## Trade Discussions

By Tina Caparella

International trade is important to renderers in the United States (US) and Canada, even if a company does not export, as it creates disappearance of rendered products. National Renderers Association (NRA) President Nancy Foster reported in late April at the group's spring meeting in Vancouver, BC, Canada, that North American Free Trade Agreement negotiations are still ongoing in Washington, DC, as well as discussions over a new US farm bill. There is concern, however, that if a new farm bill is not passed this year and instead the 2014 bill is extended, NRA's nearly \$900,000 in matching funding for export activities could be in jeopardy.

"The 2019 farm bill is a very important issue for the rendering industry," Foster commented. "The Foreign Market Development program falls under a monetary threshold that cannot be appropriated if there is no authorization of a 2019 farm bill."

In good news out of Washington, newly appointed Chief Agricultural Negotiator Ambassador Gregg Doud is a friend of agriculture and "knows our world," Foster remarked. She commented that half of global tallow trade is now used in biofuels, even more so than used cooking oil, meaning the rendering industry is captive to a government-incentivized industry.

Bruce Ross, Ross Gordon Consultants SPRL, explained that although the European Union (EU) is experiencing a feed protein shortage, legislators are focused on vegetable proteins rather than those from animals. There is limited support from the EU feed industry for processed animal proteins (PAPs) and little progress is being made in relaxing the feed ban for PAPs due to the lack of a reliable polymerase chain reaction, or PCR, test and a cautious European Commission. In October 2017, the Commission requested a new scientific opinion on bovine spongiform encephalopathy risks posed by PAPs in feed since the last such report was published in 2010. The updated opinion is expected by the end of June.

Despite the ongoing challenge of gaining market access to Mexico for US ruminant meat and bone meal, German Davalos, NRA regional director for Latin America, predicted that once the protein is approved by government officials, imports could easily reach 150,000 metric tons per year due to the product's current low price. Gaining market access into Mexico for ruminant meat and bone meal is one of NRA's trade priorities. Several other countries in the region already import ruminant meat and bone meal, although Ecuador shrimp producers sell to the EU market so animal proteins are destined for non-shrimp feed.

### Meeting Matters

Other important issues addressed at NRA's spring meeting were the need to include the next generation of industry leaders in future meetings and reconsideration of the association's name and current acronym to avoid confusion with another prominent group, the National Rifle Association. NRA committees also focused on biofuels, sustainability, legislation, and environmental regulations.

Doug Smith, Baker Commodities and chairman of the NRA Biofuels Committee, noted that US renewable diesel production, which uses rendered fats and oils as a feedstock, continues to surge,

driven mostly by policy and low carbon fuel standards in states such as California, Oregon, and Washington in the west, and Massachusetts and Rhode Island in the east.

"Biofuels account for 90 percent of carbon reduction and that's what is driving the market," Smith stated. "If we didn't have biodiesel and renewable diesel, with the challenges in the export markets, fat prices would not be where they are currently." Smith was not as optimistic about the probability of the federal tax credit being reinstated this year and emphasized that although in-state production of biofuels is expanding, bulk storage and blending infrastructure is sorely needed.



A group of renderers listen to updates on federal trade negotiations at the NRA spring meeting.



Bob Vogler, Valley Proteins and NRA Environmental Committee chairman, said rolling back existing environmental laws as President Donald Trump ordered shortly after taking office last year is a complicated process and wrecked with lawsuits.

“It’s a mess, both regulatory and procedurally,” Vogler commented. “However, no new burdensome environmental laws have been introduced under this new administration.” Read more of Vogler’s report on the current environmental regulatory arena on page 32.

Dr. David Meeker, senior vice president of NRA Scientific Services, updated the association’s Feed Ingredient Committee on the Food and Drug Administration’s (FDA’s) actions following pentobarbital contamination in canned dog food earlier this year, and in early 2017, that sickened and killed several dogs. In early May 2018, FDA issued a warning that animals euthanized using pentobarbital or other barbiturates should be excluded from rendering or other operations that utilize salvaged skeletal muscle, organs, or other tissues for animal food of any kind. A January 2018 FDA draft guidance, *Hazard Analysis and Risk-Based Preventive Controls for Food for Animals, Guidance for Industry #245*, explains this hazard.

According to FDA, pentobarbital residues in animal tissues are most likely the result of euthanasia of dairy cattle, horses, or other animals not intended for human consumption. Pentobarbital is stable in tissues, resists degradation at rendering temperatures, and persists in the environment. NRA is calling on all veterinarians to assist in preventing contamination of carcasses intended for rendering by encouraging alternative methods, such as captive bolt, for the euthanasia of these animals.

The NRA Sustainability Committee pointed out that employees need to hear the rendering industry’s sustainability message in easy-to-understand soundbites they can share with friends, family, and others.

“Rendering is the poster child for sustainability,” declared NRA Chairman Ridley Bestwick, West Coast Reduction in Canada.

“If there is ever an industry that can stand on the platform and preach sustainability, it is ours,” seconded Michael Koewler, Sacramento Rendering Company. NRA is working on a brochure and infographics that demonstrate the different ways rendering is sustainable, such as delivering clean water back to communities.

In the association’s Legislative Committee meeting, Steve Kopperud, SLK Strategies, predicted the new farm bill, 70 percent of which targets nutrition programs, will be the last bill of its type Congress will do as it is “archaic and too much of a rural versus urban thing.” He believes nutrition and farm programs will eventually be separated from each other in future legislation.



From left, Bram Glotman, Ken Ingram, Paul Faber, and Jared Girman, all of West Coast Reduction in Canada, take a break during the business meetings.

Additional regulatory issues renderers are focused on include federal weight limits on trucks and the U.S. Chamber of Commerce support for a five-cent fuel tax hike each year for the next five years (for a total 25-cent increase) earmarked to improve transportation infrastructure. Rendering companies own some of the largest truck fleets in the country.

### Research Group Gathers

The Fats and Proteins Research Foundation (FPRF) held its spring meeting in conjunction with NRA’s where members reviewed research proposals and the new Pet Food Alliance, and addressed concerns from the pet food industry on foreign material in rendered products. FPRF leadership approved a number of novel projects to be conducted at the Animal Co-Products and Research Education Center (ACREC) at Clemson University. One project showing promise is the reactive conversion of oils extracted from dissolved air flotation sludge using supercritical methanol. Other projects will analyze rendering co-products as electron donors for subsurface remediation and free fatty acid-based composites for biomaterial applications. In all, six ACREC projects were approved at a cost of just over \$300,000.

Michele Sayles, Diamond Pet Foods, informed members about the upcoming Pet Food Alliance meeting June 27-28, immediately following the American Meat Science Association 71st Reciprocal Meat Conference in Kansas City, Missouri. There will be industry-leading speakers talking about oxidation, *Salmonella*, sustainability, and consumer perception in pet food, along with student interaction. For more information, log on to [fprfalliance.agsci.colostate.edu](http://fprfalliance.agsci.colostate.edu).

David Edmiston III, director of quality assurance at Nestle Purina PetCare, spoke on the challenges pet food manufacturers have with foreign material in rendered meals. With consumer expectations changing and new food safety regulations in place, eliminating foreign matter—such as rubber, plastics, and metal—in pet food is a high priority. Edmiston declared this issue an industry problem, one not specific to a single company or process, that needs to start with the meat processors that supply renderers their raw material.

Edmiston shared the steps Purina is taking to address the situation. These include partnering with meal suppliers to eliminate contaminants in the rendering process as well as approaching slaughter companies as a collective voice, either as business partners or through association groups. This last step is aimed at educating workers on the importance of keeping gloves, metal tags, and other foreign matter out of rendering material collection bins.

NRA members next meet at the group’s annual convention in Laguna Niguel, California, October 22-26, 2018. **R**

that is the hallmark of farm bills past. House Republican conservatives decided their political agenda was more important than either the full chamber, agriculture, or the country at large, and added insult to injury by taking down the bill. Critics contend Republican leaders decided to risk a successful farm bill rewrite over a political gift being thrown to the president's supporters in the run-up to the November midterm elections.

Leadership seriously underestimated the level of antipathy this farm bill generated after the food stamp fracas alone led to one of the ugliest, most politically charged House Agriculture Committee markups in memory. The committee was forced to advance the bill in mid-April on a straight 26-20 party line vote, a first for House farm bills. Conaway took heat for the way he decided to draft the bill. Committee members of both parties asked Conaway repeatedly why the chair jeopardized the traditional bipartisan dynamic of the committee by skipping the subcommittee drafting, hearing, and markup phase of conventional farm bill development.

However disappointed they were, committee Democrats refused to offer amendments and Peterson handed Conaway a letter signed by his entire side of the table formally opposing the committee bill.

Conaway sat stoically during the nearly five-hour committee markup, listening

to Democrats attack his farm bill as "mean, cruel, and deceitful" over the GOP increases to federal work/training requirements for SNAP recipients. At one point, committee member Representative Alma Adams (D-NC) said, "I don't think the Lord is pleased with what we're doing today." House Minority Leader Nancy Pelosi (D-CA) called the bill "radical" and "harmful," saying it "fails America's farmers at a time of great challenge and economic uncertainty."

Perhaps the ugliest moment during mid-May's full floor debate came when Congressional Black Caucus member Representative David Scott (D-GA) called the bill "racist." This was the second time Scott brought up race as a GOP farm bill motivator. During committee mark-up, Scott accused Conaway of crafting a bill that exploited what he said is a perception that SNAP recipients are lazy African American men. "This is absolutely, without question, the most terrible farm bill that we've ever had," said the long-time ag committee member. "This farm bill is mean. The farm bill you're putting here is hurtful. The farm bill here is deceitful. It is un-American and it is filled with racial vicissitudes."

During floor debate, however, Scott was not talking about changes to the federal food stamp program. "This is a racist farm bill, make no mistake about it," he said during the first hours of debate, going on to say that the committee bill did not properly fund his initiative to create new scholarship programs at 1890s land-grant universities for African-American students looking to work in agriculture. The farm bill package included Scott's scholarship authorization, but did not make the dollars to pay for the program part of mandatory funding.

"They took the money out, just like they did back in the 1890s," Scott said. Conaway countered that the program funding had never been mandatory, even at the committee level.

Former ag committee chair Representative Frank Lucas (R-OK) tried to bring some adult supervision to the process, telling his colleagues that if they want to get a farm bill done in 2018, they need to keep the process on track.

"The point is the product we start with now may not look like the version that gets to the president's desk. Let's move forward, let's keep working," Lucas said. Conaway echoed Lucas, saying publicly on several occasions he expects the committee-approved bill to evolve through the House and conference committee action with the Senate.

The Senate has just begun its farm bill process but watched—and learned—from the House debacle. Almost as soon as the first House Democrat vocalized opposition to the bill, the Senate ag panel's Roberts and Stabenow reinforced their commitment to a bipartisan bill, "just as we did in the 2014 farm bill." By Senate definition, a bipartisan farm bill translates to a bill supported by producers, conservationists, nutrition/hunger interests, and rural leaders.

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**Leadership seriously underestimated the level of antipathy this farm bill generated after the food stamp fracas alone led to one of the ugliest, most politically charged House Agriculture Committee markups in memory.**

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"Unfortunately, the Republican leadership of the House Agriculture Committee has abandoned this coalition and has chosen a partisan path that makes it impossible to pass a five-year farm bill," Stabenow declared.

Farm bill veterans in Washington, DC (this is the seventh trip down the farm policy rabbit hole for this author), contend rightly that the farm bill process is the proverbial "sausage making" that Mark Twain meant when he said, with credit to Otto von Bismarck, "Those that respect the law and love sausage should watch neither being made."

The United States is not unique in its quinquennial sausage-making festival to reinvent federal farm income safety net and feeding programs. The European Union has its Common Agriculture Policy, Canada has its Canadian Agricultural Partnership, and Japan's farmers operate under the aegis of the Basic Law on Food, Agriculture, and Rural Areas.

The US Congress has hammered together farm bills since the Great Depression, part of President Franklin Roosevelt's New Deal strategy, to not only provide federal financial aid to farmers facing overproduction and low prices but also to ensure the country had a reliable, adequate food supply. In 1933, Congress enacted the Agriculture Adjustment Act making farmers eligible for payments for not growing grains and other crops on a percentage of their land with that percentage determined by the secretary of agriculture. The bill provided the authority and money for the federal government to buy and store overproduction in case of production or supply emergencies, as well as a first-ever nutrition program, the precursor to food stamps. In 1938, Congress enacted a new Agricultural Adjustment Act that mandated the law be revisited and updated every five years, a schedule that has generally been met, give or take a couple of years, ever since.

After the recent House disaster, this may just be the last conventional farm bill Congress tries to enact. We shall see. **R**



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# APPI Membership: Continuous Improvement

The Animal Protein Producers Industry (APPI) oversees the rendering industry biosecurity programs in North America. APPI programs feature ways to control biological, chemical, and physical hazards, and to comply with changing feed regulations. APPI is a committee within the National Renderers Association and membership is open to all renderers.

APPI's mission is to assist member companies in manufacturing safe products. The *Rendering Code of Practice* corresponds very closely to biosecurity initiatives taking place throughout the entire food chain and furthers the concept of "safe feed—healthy livestock, safe food—healthy people." With continued intense scrutiny on all feed ingredients, the development of the *Rendering Code of Practice* years ago by renderers shows great foresight. The leaders in the rendering industry are those companies that participate in this code of practice, with a list of participants available at [www.nationalrenderers.org/biosecurity-appi](http://www.nationalrenderers.org/biosecurity-appi). The certification

process includes independent third-party audits and aligns with the Safe Feed/Safe Food program of the American Feed Industry Association. Certifying with the latest version of the *Rendering Code of Practice* will:

- ensure compliance with the Food Safety Modernization Act
- assure customers that a renderer is a verified safe supplier
- offer a single audit for recognition by two well-known programs
- help employees take pride in their work
- identify opportunities for continuous improvement

APPI will continue to develop innovative programs to promote the safety of animal proteins and feed fats through testing, continuing education and training, and collaborative research. When new regulations are issued, APPI programs will be adjusted to keep participants up to date. **R**

**The following 186 plants made a significant commitment to APPI and its testing program in 2017. They are the foundation for safe rendered feed products in the future.**

#### AB Foods LLC

Toppenish, WA

#### American Proteins Inc.

Alma, GA  
Cumming, GA  
Cuthbert, GA  
Hanceville, AL (plant A)  
Hanceville, AL (plant B)

#### Ampro Products Inc.

Concordia, MO  
Cuthbert, GA  
Dawsonville, GA  
Gainesville, GA  
Muscatine, IA  
Pickensville, AL  
Portsmouth, VA\*  
Stafford, KS\*

#### Baker Commodities Inc.

Los Angeles, CA  
North Billerica, MA  
Phoenix, AZ  
Rochester, NY  
Seattle, WA  
Spokane, WA\*

#### BHT Resources

Bessemer, AL

#### Boyer Valley Co.

Arion, IA

#### Cargill Meat Solutions

Dodge City, KS  
Friona, TX  
Ft. Morgan, CO  
Highriver, AB, Canada  
Schuyler, NE  
Wyalusing, PA

#### Caviness Beef Packers

Hereford, TX\*

#### Clemens Food Group

Hatfield, PA

#### Clougherty Packing

Vernon, CA

#### Coastal Protein

Godwin, NC

#### CS Beef Packers

Kuna, ID

#### DaPro LLC

Huron, SD

#### Darling Ingredients Inc.

Bastrop, TX  
Berlin, WI  
Blue Earth, MN  
Butler, KY  
Clinton, IA  
Coldwater, MI  
Collinsville, OK  
Crows Landing, CA

#### Darling Ingredients Inc. (continued)

Dallas, TX  
Denver, CO  
Des Moines, IA  
East Dublin, GA  
Ellenwood, GA  
Fairfax, MO  
Fresno, CA  
Houston, TX  
Jackson, MS  
Kansas City, KS  
Kansas City, KS (blending)  
Kuna, ID  
Lexington, NE  
Los Angeles, CA  
Lynn Center, IL  
Mason City, IL  
National Stock Yards, IL  
Newark, NJ  
Newberry, IN  
Omaha, NE  
Omaha, NE (blending)  
Pocohontas, AR  
Russellville, KY  
San Francisco, CA  
Sioux City, IA

*Continued on page 20*



## Rendered Products Are Safe.

**As an essential link in the food chain**, the rendering industry is conscious of its role in the prevention and control of bacteria and virus, to provide safe feed ingredients for livestock, poultry, aquaculture, and pets. Every effort is made to ensure that cooking destroys microbes, and that recontamination does not occur after the rendering process.

Since 1985, the Animal Protein Producers Industry (APPI) has coordinated a program of education and laboratory testing for renderers to control *Salmonella*. Now, APPI offers a sophisticated training and process testing to offer the most appropriate controls and practices to best assure safe products. Our advanced feed safety programs include strategies to control biological, chemical, and physical hazards that can occur in animal production and processing systems. A concerted effort is made to foresee any hazard likely to occur and to build prevention of risk into manufacturing. Process controls in rendering verify that cooking temperatures control microbial and viral contamination. These programs also concentrate on recontamination prevention with rodent control, plant and transport sanitation, and other biosecurity measures.



More than 90% of rendered product in the U.S. and Canada are produced under principles in the Rendering Code of Practice or equivalent programs such as HACCP. If you are a customer—ask for these credentials and rest assured. If you are a renderer, make sure you take advantage of these excellent programs.

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For information, contact Dara John at 660-277-3469 or [appi@cvalley.net](mailto:appi@cvalley.net), or visit us on the web at <http://www.nationalrenderers.org/biosecurity-appi/>.

**Darling Ingredients Inc. (continued)**

Starke, FL  
Tacoma, WA  
Tampa, FL  
Union City, TN  
Wahoo, NE  
Wichita, KS  
Winesburg, OH

**Farmers Union Industries LLC (Central-Bi-Products)**

Estherville, IA  
Long Prairie, MN

**Fieldale Farms Corp.**

Cornelia, GA  
Eastanollee, GA

**Foster Farms**

Farmerville, LA  
Livingston, CA

**G.A. Wintzer & Son Co.**

Wapakoneta, OH

**Hahn & Phillips Grease**

Marshall, MO

**Harris Ranch Beef Co.**

Selma, CA

**H.J. Baker & Bro. Inc.**

Sanford, NC

**Hormel Food Corp.**

Austin, MN  
Fremont, NE

**Indiana Packers Corp.**

Delphi, IN

**Island Commodities Inc.**

Kapolei, HI

**JBS Foods**

Brooks, AB, Canada

**JBS Souderton Inc.**

Elizabethville, PA  
Elroy, PA  
Seaford, DE

**JBS Swift & Company**

Beardstown, IL (JBS Swift Pork Co.)  
Cactus, TX  
Greeley, CO  
Green Bay, WI  
Hyrum, UT  
Marshalltown, IA  
Omaha, NE  
Ottumwa, IA (JBS Swift Meat Co.)  
Tolleson, AZ  
Worthington, MN

**John Kuhni Sons Inc.**

Levan, UT

**Keystone Protein Company**

Fredericksburg, PA

**Kruger Commodities Inc.**

Hamilton, MI  
Tama, IA

**Maple Lodge Farms**

Brampton, ON, Canada

**Mason City By-Products**

Mason City, IA

**Mendota Agri Products**

Mendota, IL

**Mid-South Milling Co. Inc.**

Kansas City, KS  
Memphis, TN

**Mountain View Rendering**

Edinburg, VA

**Mountaire Farms of Delaware Inc.**

Millsboro, DE

**National Beef Packing Co. LLC**

Dodge City, KS  
Liberal, KS

**NF Protein LLC**

Sioux City, IA

**Nutri Feeds Inc.**

Hereford, TX

**Nutrimax Inc.**

Laurinburg, NC

**Pilgrim's Pride Corp.**

Mt. Pleasant, TX  
Moorefield, WV  
Sumter, SC  
Timberville, VA

**Protein Products**

Sunflower, MS

**Rothsay**

Dundas, ON, Canada  
Hickson, ON, Canada  
Moorefield, ON, Canada  
Truro, NS, Canada  
Winnipeg, MB, Canada

**Sacramento Rendering Co.**

Sacramento, CA

**Sanimax**

Green Bay, WI  
Charney, QB, Canada  
Montreal, QB, Canada

**S.F. Rendering Ltd.**

Centreville, NS, Canada

**Simmons Feed Ingredients**

Southwest City, MO

**Smithfield Foods Inc.**

Crete, NE  
Clinton, NC  
Denison, IA  
Milan, MO  
Sioux Falls, SD\*  
Smithfield, VA  
Tar Heel, NC

**Standard Fertilizer**

Greenburg, IN

**Tyson Foods**

Cullman, AL (blending)  
Pine Bluff, AR (blending)

**Tyson Foods – River Valley Animal Foods**

Clarksville, AR  
Forest, MS  
Harmony, NC  
Robards, KY  
Scranton, AR  
Sedalia, MO  
Sequin, TX  
Temperanceville, VA  
Texarkana, AR

**Tyson Fresh Meats**

Amarillo, TX  
Columbus Junction, IA  
Dakota City, NE  
Hillsdale, IL  
Holcomb, KS  
Lexington, NE  
Logansport, IN  
Madison, NE  
Perry, IA  
Storm Lake, IA  
Waterloo, IA  
Wallula, WA

**Valley Proteins Inc.**

Amarillo, TX  
East Earl, PA  
Fayetteville, NC  
Fayetteville, NC (pet food div.)  
Gastonia, NC  
Lewiston, NC  
Linkwood, MD  
Linville, VA  
Oklahoma City, OK\*  
Rose Hill, NC  
San Angelo, TX (Veribest div.)\*  
Strawberry Plains, TN  
Wadesboro, NC  
Ward, SC  
Winchester, VA

**West Coast Rendering**

Vernon, CA

**West Coast Reduction Ltd.**

Calgary, AB, Canada (Alberta Processing)  
Edmonton, AB, Canada (Northern Alberta Processing)  
Vancouver, BC, Canada

**Western Mass. Rendering**

Southwick, MA

**Wilbur Ellis Company**

Gaffney, SC

**Worthington Rendering**

Worthington, MN\*

\*New and returning participant for 2017



# Sustainability and the Next Generation are Rendering's Future

By Tyler Nicholson  
Account Manager, By-Product Sales, National Beef

As the fourth largest beef packing company in North America, National Beef, based in Kansas City, Missouri, operates two large packing plants in Southwest Kansas and two further processing case-ready facilities in Georgia and Pennsylvania. Other operations include Kansas City Steak Company, a direct-to-consumer meat product division, and a Missouri tannery that is the largest producer of wet blue leather in the world.

National Beef also owns and operates its own rendering facilities adjacent to its packing plants. These operations produce meat and bone meal, gel bone, tallow, and both raw and dried blood that are sold to customers in various industries both domestically and worldwide. Rendering complements National Beef's business model by producing co-products to its beef sales. Rendering positively affects the company's bottom line by adding extra value to each carcass and allowing it to operate more sustainably and with a smaller environmental footprint.

## Partnerships and Benefits

As a packer-renderer, National Beef greatly values its relationship and involvement with the National Renderers Association (NRA). The organization helps open doors to other countries for product export in addition to continuing to meet the demand and standards of its valuable domestic customers. With international and domestic rules and regulations ever-changing, the importance of NRA's work in this area has never been more apparent.

Along with assistance in the business aspects of rendering, NRA has been a positive influence to bridge the gap between renderers and their clients. As an industry, it is important to continually educate end users of rendered products and the general public on the many benefits rendering provides.

One of the more recent hot button topics about animal agriculture is that it is unsustainable and negatively affects the environment. In truth, the rendering process actually minimizes environmental impacts, making animal agriculture more sustainable. Without rendering, meat packers would be forced to find alternative disposal methods for the billions of pounds of leftover parts of an animal carcass not consumed by people. Landfills would fill up quickly, ultimately harming the environment and local communities. These beneficial aspects of rendering are what NRA communicates to everyone, from customers and government officials to the general public.

## Reaching Out to the Younger Generation

There has been a lot of talk lately about the next generation of renderers, whether they are students fresh out of school or those who have worked in rendering for a few years and are still learning and advancing.

Unlike many who are already involved in rendering or NRA, this author admittedly had no idea about the industry before going to work at National Beef. My introduction to the beef industry was while growing up and being involved in my family's cow-calf operation in Iowa. Education at Iowa State University followed with a focus on agronomy and animal science with the intention of working in beef packing. This agricultural background provided an understanding of how markets work while regularly paying attention to rendering's competing commodities. Despite those experiences, rendering was still very unfamiliar.

My initial exposure to the rendering industry was during a 10-week internship at National Beef. Working in the company's rendering facilities, I became intrigued with what I consider the last true commodity within the beef packing industry. Shortly after completing the internship, I was hired to manage rendered protein sales and was fortunate to attend NRA's spring meeting in Vancouver, BC, Canada, this past April. There the question was asked about how to get more people involved in rendering, especially the next generation. This question really hit home because I was unaware of the rendering industry until just a few short months ago.

The best way to involve younger people within this industry is to get out and educate them about what rendering really is and the benefits it provides to the people it employs, the many industries it serves, and the environment it ultimately protects. Career fairs, presentations on college campuses, internships, and similar events are great ways to get out in front of talented young individuals. There are many young adults who might be interested in rendering if they just knew more about it. I look forward to becoming more involved in helping improve National Beef's rendering operation, learning more about this industry, and actively participating in NRA.

Rendering has been and will continue to be a significant and important part of the meat packing industry. National Beef aims to maximize the value and quality of its rendered products while working to stay ahead of the ever-evolving domestic and global markets.

For the industry to remain successful in the future, it is important to integrate young adults into rendering and groom them for roles as industry leaders. With the assistance of NRA, I am confident that National Beef and the entire rendering industry will continue to grow and thrive to meet the increased demand for sustainability worldwide. **R**

## The Next Generation of Renderers

In search of: a meaningful life, how to make a positive difference in the world, and a manager who will mentor. Hierarchy is not important, but listening to everyone is. Seeking training, understanding “why,” and day-to-day feedback with recognition for a job well done. Must be open to constant change, accomplishing tasks efficiently from anywhere, and having fun at work while connecting with teammates.

Do these words sound familiar? If you manage millennials or are one, they might be. Being a parent to three millennial-aged children, I can say these remarks fit them remarkably well. As digital natives, they breathe personally-customized technology. Social platforms are the first place for news and to have their questions answered.

Three priorities of National Renderers Association (NRA) Chairman Ridley Bestwick, West Coast Reduction, are to start developing the next generation of young renderers, to help retain up-and-coming employees in rendering, and to encourage their participation in the association. To lay the groundwork, NRA reached out to a number of young renderers about what they would like to learn and experience from the association. One-on-one extended conversations were held with young leaders from small and large family-owned companies and packer renderers. Each had varying responsibilities and titles, ranging from operations to sales and management. Some had extremely limited contact with NRA, while others were somewhat involved with the organization.

Knowledge derived from these interviews with young renderers may be interesting to managers and other, more experienced industry leaders. The results below offer an insight into how they think, what motivates them, and what they seek from their employers. NRA anticipates using these results as programs and membership benefits evolve. The beliefs and motivations of the rendering industry’s next-gen up-and-comers, many with an agricultural background and technical training, are remarkably similar to those of millennials across the country.

As the largest generation in the United States (US) labor force, millennials are a huge population group with many views on issues important to them. They are also the most racially diverse generation in American history. Children of the large wave of Hispanic and Asian immigrants who came to the United States during the past 50 years are now entering adulthood. Some 43 percent of millennials are non-white. By 2023, The U.S. Census Bureau projects the entire country’s population will be majority non-white.

Millennials are somewhat unattached to organized politics or religion, linked by social media, carry large amounts of debt, and are optimistic about the future. Half identify as political independents and 29 percent say they are not affiliated with any religion, according to the Pew Research Center. They have higher levels of student debt, poverty, and unemployment, and lower wealth and personal income than their two previous generations (Generation X and Baby Boomers) had at the

same stage of their lives. Even so, they are upbeat about their future. As a group, they are also more educated than previous generations.

A sociable generation, millennials consider group projects, travel, and socializing as important for an optimal work environment. They seek the joy of adventure and discovery so may see business travel as an opportunity rather than a burden. Millennials have a positive, community-oriented mindset based on equal relationships and shared decision-making. They want and expect to be listened to as equal contributor, regardless of how managers may perceive them. Millennials are not afraid to share ideas and challenge opinions, either, even if they are talking with their boss. Their approach is grounded in the concept that the best results come from listening to all points of view.

Importantly, millennials integrate their beliefs and causes into their work and day-to-day interactions. More than half try to patronize companies that support causes they care about. They also care about what is “genuine” and “authentic,” and quickly see through “greenwashing” on issues like sustainability. Honesty, truthfulness, and openness (transparency) are important qualities sought after in employers, both as businesses and co-workers.

These are generalizations since each millennial is a person first and member of that demographic generation second. Further, as renderers operate and plan for their business future, millennials will be their employees as well as customers for the next 40-plus years. Knowing the macro-trends can help, even if understanding them may not always fit the person in front of you.

Attracting and retaining new talent in the rendering industry is getting a lot of attention these days. There is stiff competition to recruit and hire people who are trained and capable. This is also a core goal of NRA’s 2020 Strategic Plan. As millennials gain positions in rendering with increased responsibility, they will assume leadership roles within NRA. Both the industry and association will need committed and experienced renderers to remain strong and effective in the future.

NRA’s recent conversations with young renderers provided an interesting inside look at their world view. They are eager to learn and grow in the rendering business. The next generation sees a future here and believes the industry is about to face a large shift in leadership as boomers retire. In line with millennial values, these young renderer leaders seek to personally connect, learn rendering’s authentic heritage, and understand what is ahead. They want to:

- build broad personal networks across the rendering industry by getting to know each other as a group of young renderers, between companies
- be trained in communications and have problem-solving experiences together on real life issues
- understand the rich history of rendering, its long tradition, and real-life value over time, and learn how



the industry has evolved from those who have lived it

- be mentored and coached more within their own companies and learn from current NRA leaders
- learn about NRA, what it does, how its committees work, and how they can connect
- know how to advocate for rendering to outsiders and to young agricultural talent to develop their interest in a rendering career

- grow general skills including how to retain their employees, build work teams, and other common challenges

NRA is evaluating the best opportunities to offer young renderers what they are looking for. One example is the experience of networking across generations at NRA meetings where first-time attendees can connect with established leaders such as at the annual convention. NRA's annual spring meeting and the International Rendering Symposium at the International

Production and Processing Expo held each year in Atlanta, Georgia, are also good examples of where young renderers can connect with the association.

If you are a young renderer (or manage one) and want to learn more about connecting with others in the industry and NRA, we can get you on your way. For NRA members, start by signing up for monthly newsletters for industry events and news. Contact Heather Davis, NRA member relations coordinator, at [hdavis@nationalrenderers.com](mailto:hdavis@nationalrenderers.com) or (703) 683-0155.

Young renderers admire the leadership and relationships within NRA and look forward to developing them for themselves. With an appreciation of rendering's rich traditions, mentoring by current leaders, and their own creative abilities, today's next generation will carry rendering into the future. **R**



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# Ongoing Debate over Existential Threat to the RFS

A debate between the United States (US) agriculture and petroleum sectors has been heating up over the last few months. While farmers could be severely impacted by the brewing trade war with China, modifications to the federal Renewable Fuel Standard (RFS) will be financially damaging. These changes will not only affect farmers but also cattle ranchers, renderers, and other value-chain participants in the renewable fuels industries.

Using a loophole in the RFS, Environmental Protection Agency (EPA) Administrator Scott Pruitt granted several small-refinery exemptions that allow large multi-national energy companies to exempt smaller refineries within their system from RFS compliance. This was not the intention of the small refiner exemption rule, historically reserved for small companies in financial distress. Nevertheless, EPA bent this rule even though candidate and now President Donald Trump has repeatedly vowed to support and protect the RFS.

These 25 to 30 exemptions thus far have been estimated to create an overall market reduction of well over a billion gallons of biofuels. Pruitt was grilled at a House committee hearing in late April about these waivers while Senator Ted Cruz (R-TX) and other lawmakers from petroleum-friendly states held a press conference on the Capitol lawn to discuss capping renewable identification number (RIN) prices, an action that would undermine the efficacy of the RFS. There is abundant research demonstrating the RFS is working and RIN compliance places no net burden on refiners. That negates the entire premise of Cruz's claims, and even EPA has affirmed this.

Former Senators Byron Dorgan (D-ND) and Jim Talent (R-MO), who each played key roles in developing the RFS, called on Congress to investigate EPA's recent waivers to major refiners and failure to follow the law. Both say Pruitt's use of waivers skirts the law and threatens to undermine the renewable fuels industry.

"Who better to help clarify the intent of these small refinery exemptions than those who helped write the law in the first place," stated Kurt Kovarik, vice president of federal affairs at the National Biodiesel Board (NBB). "EPA's decision to give handouts to large, profitable refiners has a direct and lasting negative impact on biodiesel producers, renderers, and farmers. We will continue our push to return transparency and certainty to the marketplace."

NBB, the National Renderers Association, and the American Soybean Association jointly sent a letter to Trump in April, first thanking him for his support of the renewable fuels industry and then noting concern surrounding the seeming inconsistent signals from the administration.

In a related story, Ohio-based Marathon Petroleum Corporation (MPC) agreed to acquire Andeavor for \$23.3 billion. Andeavor was recently granted small refiner exemptions for three of its 10 refineries after recording net profits of \$1.4 billion dollars in 2017. The acquisition would create the

largest US oil refiner at 3.1 million barrels per day of capacity and geographically diversify the combined company's refining portfolio while also increasing access to advantaged feedstocks. Andeavor's refineries in California, the Mid-continent region, and the Pacific Northwest complement MPC's existing Gulf Coast and Midwest refining assets.

Connected to its newly-minted small refiner exemptions, Andeavor reported in its May earnings statement that it saved "approximately \$100 million primarily related to a reduction in the RINs obligation for the 2016 and 2017 compliance periods for some of the company's inland refineries." In addition to these savings, MPC stated it expects to fully realize at least \$1 billion in annual run-rate cost and operating synergies within the first three years in addition to the expected synergies from Andeavor's western refining transaction. There does not appear to be any basis for financial hardship with either of these companies.

MPC sells its Marathon-branded fuel through approximately 5,600 independently owned retail outlets across 20 states and the District of Columbia. It also owns a 70-million-gallon-per-year biodiesel production facility in Cincinnati, Ohio, and holds interests in ethanol production facilities in three Midwest locations with a combined capacity of 415 million gallons per year. Contrary to these biofuels assets, MPC stated in its corporate guidance that it "advocates repeal of the RFS."

Andeavor is a highly integrated marketing, logistics, and refining company with more than 3,200 stores across the Mid-continent and western United States marketed under multiple well-known fuel brands. The company has also been evaluating an investment in dedicated renewable diesel refining capacity and currently plans to co-process small volumes of renewable crude at a Martinez, California, refinery, sourced under off-take agreements from Fulcrum Bioenergy and Ensyn Corporation as these projects come online. The company is also looking to begin co-processing lipids at its refinery in Dickinson, North Dakota, and is exploring options to potentially convert that facility into an exclusive renewable diesel biorefinery, perhaps in 2020. That facility could be capable of processing up to 200 million gallons annually.

## News Bits and Pieces

Demand for rendered fats and oils in biofuels production is on the rise. According to the US Energy Information Administration, yellow grease use as a feedstock in biodiesel and renewable diesel production has increased almost 40 percent over the past four years, from about 1 billion to 1.5 billion pounds, and accounted for more than 10 percent of total biofuel feedstock in 2017. Tallow and white grease each provided about three to six percent of total feedstock inputs between 2014 and 2017. National Biodiesel Board numbers indicate rendered fats and greases account for about 30 percent of total biodiesel feedstock used in the United States.

Across the pond, the United Kingdom's new Renewable Transport Fuel Obligation became effective in April and will drive the European biodiesel market into the future, adding between 350,000 to 400,000 metric tons per year to existing demand. The previous mandate was 4.75 percent for transportation fuels but has now risen to 7.25 percent through the end of this year. This will increase to 9.75 percent by 2020, effectively doubling the mandate in two-and-a-half years. Biodiesel produced from used cooking oil and tallow accounts for almost all of the biodiesel used in the United Kingdom. As a result, the increase in the mandate is expected to drive demand for these second-use feedstocks.

On May 1, Minnesota once again made history by becoming the first state to transform almost all of its diesel supply to B20, a blend of 20 percent biodiesel and 80 percent petroleum diesel. The National Biodiesel Board applauded the shift as an inspiration for a new energy future and as an example for other states.

The transition to B20 happened gradually, from the first statewide requirement of two percent biodiesel implemented in 2005, to five percent (B5) four years later, and 10 percent (B10) since 2014. This helped ensure sufficient blending infrastructure and education statewide. Like the previous B10 requirement, B20 will appear at the pump from April through September while B5 will remain the standard for the rest of the year.

On May 2, the Iowa legislature voted to secure another year of funding for the Iowa Renewable Fuels Infrastructure Program, a move that will spur economic activity across the state and support Iowa farmers. The program provides cost-share dollars to fuel retailers to install blender pumps and

other equipment necessary to offer higher blends of ethanol and biodiesel. The state legislature passed Senate File 2414, which includes \$3 million of funding for fiscal year 2019. The bill now goes to Governor Kim Reynolds and she is expected to sign it into law.

California-based Aemetis announced in April that its subsidiary, Universal Biofuels, has completed the production of high-quality, distilled biodiesel from lower-quality, high free fatty acid (FFA) waste feedstock, using its recently constructed pre-treatment unit at a biorefinery located on the east coast of India. The refinery produced biodiesel from high FFA second-use feedstock as part of commissioning the unit for BP Singapore under a three-year supply agreement. The pre-treatment unit is designed to allow production to meet or exceed the biodiesel quality specifications of international fuel standards using the lower cost high FFA low-carbon feedstock. Aemetis says that BP Singapore has already delivered feedstock for the first production run at the biorefinery, which has a capacity of 50 million gallons per year and is the only biofuels producer in India approved under the Low Carbon Fuel Standard for delivery of biodiesel into California.

Renewable Energy Group has finished upgrades to its Ralston, Iowa, biorefinery, increasing the production capacity from 12 million to 30 million gallons per year. The company invested \$32 million dollars to expand production as well as make significant upgrades to logistics and storage capabilities. The expansion began in November 2016.

In Washington, DC, US Secretary of Energy Rick Perry announced four funding opportunities totaling up to

*Continued on page 27*

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## Reactive Conversion of Fats from DAF Sludge

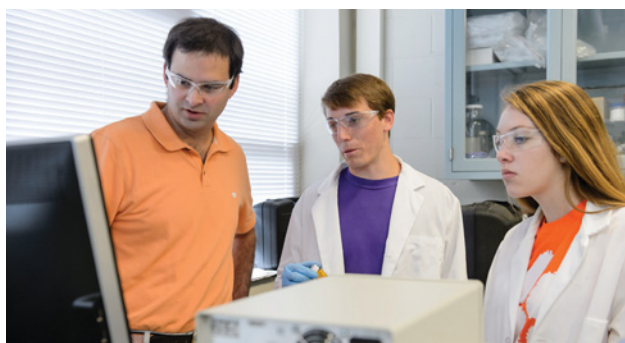
Dr. Christopher Kitchens, associate professor with the Department of Chemical and Biomolecular Engineering at Clemson University and member of the Animal Co-Products Research and Education Center (ACREC), is conducting a study to increase the value of dissolved air flotation (DAF) solids by recovering the otherwise-wasted fats.

DAF solids are a by-product of rendering facility wastewater treatment that contain lipids and other solids isolated as a part of wastewater cleanup. DAF solids have a very low value and consist of a complex mixture of many compounds that have been degraded by the wastewater treatment process. In spite of this, the fats in DAF solids are high in free fatty acids (FFAs) and other lipid-derived components, including monoglycerides, diglycerides, and phospholipids.

After centrifugation and drying, DAF solids can contain 60 to 80 percent lipids; however, although high in lipid content, DAF-derived fats are very low-grade due to the high FFA content, complex composition, and presence of other impurities. The lack of bone in the solids makes it infeasible to use traditional rendering pressing techniques and reintroduction back into the rendering process has many other issues as well.

An alternative solution that Kitchens is investigating is the use of solvent extraction. Worldwide, solvent extraction accounts for roughly a quarter of the annual 200-million-ton seed oil market. Of this, solvent extraction methods using hexane account for 95 percent of seed oil extraction. Although hexane extraction of DAF solids can be used to recover the lipids, there are both disadvantages and opportunities. Kitchens has investigated the use of alternative solvents for the extraction of fats from DAF solids in order to enhance the quality of the fat extracted. He has identified other organic solvents that have faster extraction rates than hexane and greater extraction efficiency, especially for DAF solids with high water and high FFA content.

Kitchens' goal is to extract the low-grade fats and other low-value components and convert them into higher-value products through catalyzed transesterification processes; however, high levels of water, FFA, and phospholipids can



From left, Dr. Christopher Kitchens, along with students Cody Davidson and Jessica Schnorr, work on supercritical fluid extraction of DAF sludge.

deactivate catalysts, form emulsions, and cause decreased conversion rates. Using an acid catalyst system reduces the problems of catalyst deactivation and emulsion formation, but has slower kinetics and reduced conversions. Kitchens is researching an alternative process using a supercritical fluid solvent reaction, which avoids the need of an external catalyst and is more amenable to the low quality fats.

The term "supercritical" refers to the temperature and pressure of the reaction being conducted above the critical temperature and pressure of the reaction solvent, which are the conditions at above which a solvent exists as a supercritical fluid and possesses properties of both liquids and gases. By employing a supercritical solvent, Kitchens is working toward a greener, more sustainable single-step, catalyst-free method to convert the low-quality fat components into methyl esters. Methyl esters have value-added uses for oleochemical applications, such as biodiesel. Thus far, Kitchens has constructed a custom high-temperature, high-pressure titanium cartridge multi-reactor system designed to conduct a systematic study of the supercritical transesterification reaction with the fats extracted from DAF solids.

In the next phase of the study, Kitchens will work with DAF solids from two different rendering facilities, with both samples undergoing solvent extraction and supercritical conversion into value-added fatty acid methyl esters. If successful, the project could result in new methods for separating and upgrading DAF solid extracts into higher value components and potentially allow recycling of DAF flocculent for further wastewater treatment. It is anticipated that applications for fatty acid methyl esters will continue to grow in the future for the ever-expanding renewable oleochemical industry.

In previous ACREC research, Kitchens utilized carbon dioxide enhanced fat pressing of rendered products in order to allow greater fat separation. The result was the ability to achieve low fat rendered meals as well as increased fat separation for higher value sales. Kitchens advanced this technology from the laboratory through pilot scale testing and results were favorable.

**R**



From left, Cary Pearl and Drs. Tom Jenkins, Jim Strickland, Gary Pearl, Tom Scott, and Paul Dawson enjoyed reminiscing about ACREC research projects during a visit by Gary, past president of the Fats and Proteins Research Foundation, and his son, Cary.

\$78 million to support early-stage bioenergy research and development under the Office of Energy Efficiency and Renewable Energy's Bioenergy Technologies Office.

"The Department of Energy is focused on some of the most exciting research opportunities as well as the biggest technological challenges facing our diverse and abundant domestic bioenergy resources," said Perry. It is expected that through these funding opportunities, US bioenergy resources, including algae, energy crops, and various waste streams, will be more efficiently and effectively converted into affordable biofuels, biopower, and bioproducts.

The National Biodiesel Board is hosting a series of regional, one-day seminars designed to educate fuel wholesalers, distributors, retailers, marketers, fleets, municipalities, and other end users on the benefits and opportunities surrounding biodiesel. The event, Exploring Biodiesel ([www.exploringbiodiesel.com](http://www.exploringbiodiesel.com)), will be offered complimentary to attendees. Attendees will learn about biodiesel's place in today's liquid fuels supply chain and how the fuel can be leveraged not only as a cleaner burning, renewable complement to diesel fuel but also as a means to increase market share and enhance an organization's brand.

The Exploring Biodiesel seminars will be held in five cities over the summer, starting in Boston, Massachusetts, June 12; Philadelphia, Pennsylvania, July 18; Los Angeles, California, August 7; Portland, Oregon on August 9; and Cleveland, Ohio, September 18.

The New York City Department of Citywide Administrative Services will begin using renewable diesel to power over 1,000 city-owned vehicles, including many of its sanitation trucks, making it one of the first city fleets to use renewable diesel in the Northeast. The fuel will be produced domestically by Renewable Energy Group and reduces the city vehicles' greenhouse gas emissions by more than 60 percent compared to petroleum diesel. This initiative is part of Mayor Bill de Blasio's commitment to reduce New York City's greenhouse gas emissions at least 80 percent by 2050. **R**

## June

### **Animal Protein Producers Industry Rendering Code of Practice Training**

June 19-21, Kansas City, MO • Contact Dara John at [appi@cvalley.net](mailto:appi@cvalley.net)

### **European Fat Processors and Renderers Association Congress**

June 20-23, Barcelona, Spain • [www.efprabarcelona2018.com](http://www.efprabarcelona2018.com)

### **American Meat Science Association 71st Reciprocal Meat Conference**

June 24-27, Kansas City, MO • [www.meatscience.org/rmc](http://www.meatscience.org/rmc)

### **Pet Food Alliance Meeting**

June 27-28, Kansas City, MO • [fprfalliance.agsci.colostate.edu](http://fprfalliance.agsci.colostate.edu)

## July

### **Association of American Feed Control Officials 2018 Annual Meeting**

July 29-August 1, Fort Lauderdale, FL • [www.aafco.org](http://www.aafco.org)

## August

### **3rd Annual Canadian Beef Industry Conference**

August 14-16, London, ON, Canada • [www.canadianbeefindustryconference.com](http://www.canadianbeefindustryconference.com)

## September

### **11th Annual National Aboveground Storage Tank Conference and Trade Show**

September 12-13, Galveston, TX • [www.nistm.org](http://www.nistm.org)

### **2018 Feed and Pet Food Joint Conference**

September 17-19, St. Louis, MO • [www.ngfa.org](http://www.ngfa.org)

### **Global Aquaculture Alliance's Global Outlook on Aquaculture Leadership (GOAL)**

September 25-27, Ecuador • [www.aquaculturealliance.org](http://www.aquaculturealliance.org)

## October

### **Poultry Protein and Fat Seminar**

October 4-5, Nashville, TN • [www.uspoultry.org](http://www.uspoultry.org)

### **American Fats and Oils Association Annual Meeting**

October 10-11, New York, NY • [www.fatsandoils.org](http://www.fatsandoils.org)

### **US Animal Health Association 122nd Annual Meeting**

October 18-24, Kansas City, MO • [www.usaha.org](http://www.usaha.org)

### **National Renderers Association 85th Annual Conference**

October 22-26, Laguna Niguel, CA • [www.nationalrenderers.org](http://www.nationalrenderers.org)

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## European Congress Approaching Fast

The European Fat Processors and Renderers Association (EFPRA) invites all renderers, end product users, and allied companies to Barcelona, Spain, to attend the 19th annual EFPRA Congress June 20-23, 2018. This year's EFPRA organizer, Spanish member ANAGRASA, and its president David Codina, welcome everyone to the enchanting Mediterranean seaside city of Barcelona. It is a warm and charming location in which to combine memorable experiences with an excellent working program that reflects the issues of importance to the global rendering industry. It is also a perfect place to meet up with old friends and colleagues.

Last year's congress in Hamburg, Germany, had more than 400 participants from 34 countries, demonstrating the international importance of this meeting. Topics of discussion this year again reflect a program that is not only of European interest but also carries international appeal.

Speaker Sebastian Csaki, International Feed Industry Federation, will call upon renderers to work together toward the global reference for feed life cycle analysis (LCA) data through the Global Feed LCA Institute (GFLI). The GFLI is a feed industry initiative with the vision to develop a freely and publicly available feed LCA database and tool that is based on the internationally recognized feed LCA methodology developed by the Food and Agriculture Organization (FAO)-led Livestock Environmental Assessment and Performance (LEAP) partnership. Supported by FAO and LEAP, the GFLI is working with major feed producing regions in Europe, the United States, Canada, and Brazil to develop and build a feed-specific publicly available LCA tool to facilitate environmental assessments and the measurement of continuous improvement, which is both comparable and measurable across world regions.

The GFLI database and LCA tool will support meaningful analysis of livestock products using region-specific data and enable the rendering sector to benchmark feed industry environmental impacts on a level playing field. The LCA of rendered products are not yet calculated by this new standard. World Renderers Organization members should be in the first wave to set the standard and to prove how sustainable the industry really is.

Carolina Probst, Friedrich-Loeffler-Institute in Germany, will demonstrate the role of wild boar carcasses in African swine fever (ASF) epidemiology. ASF is currently endemic in the Baltic states and Eastern Poland while the disease in the wild boar population of the Czech Republic was very rigidly and successfully stamped out. Several studies have been performed to understand the dynamics of this highly contagious and deadly disease. Western European countries expect cases in the future that could lead to obstacles like import bans on pork meat from third countries.

Chris Thornton, European Sustainable Phosphorus Platform, will introduce the European Union nutrient circular economy policies and the opportunities and regulatory challenges for processed animal proteins (PAPs) in fertilizers.

The use of PAPs in fertilizers is currently allowed under veterinary law. Will a new European fertilizer regulation include PAPs, or is there room for a parallel regulation for fertilizer in the future, even if PAPs are a perfect example of highly valuable fertilizer fulfilling the ideas of a circular economy?

Marinus van Krimpen, Wageningen Livestock Research, has proven that PAPs can replace soybean meal in broiler diets. In an EFPRA project at the University of Wageningen, the Netherlands, the digestibility of porcine PAPs were tested in poultry diets. This project aimed at providing new digestibility factors for porcine PAPs that were not available before the feed ban, put in place in 2001, and the introduction of the animal by-products regulation in 2002. The project included a performance test as well.

Francesco Salvi, senior associate at Pavia e Ansaldo, will give an update on the European Union's new renewable energy legislation. Will there be double counting for animal fats and used cooking oil and/or a cap on both these products? In addition, will indirect land use change factors be calculated? Salvi will address these questions.

Dr. Frans Kampers, senior strategy officer of Wageningen University and Research, will explain "Food Transitions 2030" and how to achieve the transition to a sustainable, affordable, trustworthy, and high-quality food system in the next decade or two that will fulfil the needs of a diverse and growing world population. On its website, Food Transitions 2030 is described as "a vision on the required transition from the current unsustainable food system to a healthy, circular, and resource-efficient paradigm. A hugely complex transition since the multiple aspects of food production and consumption are closely interconnected and changing one aspect can easily have major unintended consequences. Yet the transitions are urgent and must be driven by science as well as values and economics. Therefore an integrated vision is proposed characterized by four objectives, which are to be pursued through eight scientific approaches combined within a matrix, always aiming for societal acceptance and citizen appreciation."

Christian Morron, executive secretary of ANAGRASA, will present a view of the animal by-products industry in Spain, giving the audience a chance to learn more about this year's host country and its growing potential. Dirk Dobbelaere, EFPRA secretary general, will present his annual statistical overview of the European rendering industry. Certain legislative changes in the last few years demonstrate an impact in the customer's structure and markets of EFPRA members.

Apart from the technical and political themes, EFPRA will have a presidential hand-over. Niels Leth Nielsen, EFPRA president since 2004, will retire, with many long-time colleagues expected to honor his service. Sjors Beerendonk from Darling International, the Netherlands, will succeed Nielsen as president.

The EFPRA Congress provides an opportunity to attend an interesting program and meet friends and colleagues. All details can be found at [www.efprabarcelona2018.com](http://www.efprabarcelona2018.com). **R**

# New Zealand Renderers hold Symposium, Honor Long-time Industry Supporter

The Renderers Group of the New Zealand Meat Industry Association, or NZRG, held its biennial meeting and symposium along with the Australian Renderers Association (ARA) in March 2018 at Waitangi in the Bay of Islands, New Zealand. The two organizations conducted their business meetings before joining to hear updates from NZRG, ARA, the World Renderers Organization, National Renderers Association, and Fats and Proteins Research Foundation.

The symposium attracted a number of international participants, including attendees from the United States, Canada, Germany, and (of course) Australia. The participants were challenged, educated, and entertained by a number of high-quality keynote presenters.

Associate Professor Anne Galloway from Victoria University provoked considerable discussion after she posed the question as to whether the rendering industry needs to worry about social license, which is the ongoing acceptance of a company or industry's standard business practices and operating procedures by its employees, stakeholders, and the general public. She identified the public concerns of the rendering industry as environmental sustainability, animal welfare and rights, and labor relations and human rights. In presenting her case as to how the industry can better respond to these concerns, Galloway likened disputes between industry and activist groups to a disagreement with one's partner: it is not about being right or wrong but about changing perceptions and forging relationships.

Gareth Williams from Beef+Lamb New Zealand talked about synthetic meat/alternative proteins and the implications and potential responses in the market.

Erich Livengood from the New Zealand Ministry for Primary Industries gave a presentation on disruption in the agricultural value chain, showing how the megatrends of alternative proteins, artificial intelligence, and block chain will contribute to agricultural transformation and what to expect.

Dr. Stewart Jessamine from the New Zealand Ministry of Health discussed antimicrobial resistance and how it is a growing global issue. One of the key national and international objectives to reduce the issue is to improve awareness and understanding of antimicrobial resistance.

Kent Swisher from the National Renderers Association in the United States gave an overview of international rendered products, including supply and demand statistics, along with his outlook on a number of international issues such as developments in biofuel initiatives.

There were also presentations on changing times with tallow, recent developments with species verification, and renderable-safe consumables. The symposium concluded with Alan von Tunzelman reflecting on his 55 years in the industry and a presentation recognizing his distinguished service to New Zealand and the global rendering industries.

For the past 25 years, Tunzelman has been general manager of PVL Proteins in New Zealand and has served in various officer positions in both NZRG and the World Renderers



Alan von Tunzelman, *center right*, is honored for his years of service to the New Zealand and global rendering industries. Joining him are, *from left*, Bruce Rountree, NZRG; Andy Bennett, ARA; Linley von Tunzelman; Ridley Bestwick, West Coast Reduction in Canada; and Kent Swisher, National Renderers Association.

Organization (WRO), including terms as chairman and president, respectively. He has made significant contributions to both organizations through his enthusiasm, mentoring and leadership skills, and extensive knowledge of the national and international rendering industries.

In 2005, Tunzelman was selected as the second vice president of WRO, representing New Zealand and Australia. He then stepped up to the role of first vice president in 2007, and subsequently became president in 2009 for a two-year term. Tunzelman's primary achievement in WRO was orchestrating its acceptance as a credible organization by other world bodies, such as the World Organization for Animal Health, or OIE, which established a relationship of cooperation between the WRO and OIE.

Tunzelman has been an active member of NZRG since its inception in 2000 and served as chairman from 2005 to 2007. One of his main accomplishments was steering the New Zealand rendering industry, as well as others, to recognize rendering as a responsible, sustainable, and essential industry rather than a by-product of meat processing.

Passionate about rendering, Tunzelman championed rendered products as having their own intrinsic value rather than a being just a by-product of the meat industry. In one example of his efforts, a New Zealand company was looking to set up a biodiesel manufacturing plant that used tallow as the feedstock. The company, along with government officials encouraging this initiative, were under the impression tallow could be sourced cheaply as it was a waste product from the meat industry. Tunzelman was dogmatic in his crusade to destroy this misunderstanding.

In retirement, Tunzelman will maintain contact with the rendering industry through a part-time ambassadorial role with Haarslev Industries. In addition, he and his wife, Linley, operate a small bed and breakfast in a delightful location just north of Auckland.

**R**

## Avoiding OSHA Liability in a Hazard Inspection

*Editor's note – Mark A. Lies II is an attorney in the Workplace Safety and Environmental Group in the Chicago, Illinois, office of Seyfarth Shaw LLP. He is a partner who focuses his practice in the areas of product liability, occupational safety and health, workplace violence, construction litigation, and related employment litigation.*

*Kay R. Bonza is an associate attorney in the Workplace Safety and Environmental Group of Seyfarth Shaw focusing her practice in the areas of occupational safety and health and environmental law. Individual circumstances may limit or modify this information.*

While it is old news that the Occupational Safety and Health Administration (OSHA) adopted the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), hazard communication violations continue to rank at the number two spot on OSHA's top 10 list of citations. Unfortunately, the mishandling or misuse of chemicals in the workplace often results in serious injury to employees or potential hazardous material incidents.

Responding to these hazards, OSHA continues to cite employers who fail to comply with the many requirements of the hazard communication regulations found in the *Code of Federal Regulations*—Title 29, Part 1910.1200. Most common OSHA citations include: failure to have a written hazard communication program in place, failure to train employees on the use and labeling requirements of hazardous chemicals in the workplace, and failure to provide employees with access to safety data sheets (SDSs). This article provides a brief overview of the basic requirements of the hazard communication standard, focusing on key items that OSHA evaluates during a hazard communication inspection.

### Hazard Communication Program

All employers with employees who are potentially exposed to hazardous chemicals in the workplace must develop, implement, and maintain a written hazard communication program. During a typical OSHA inspection, or one in response to an employee complaint about exposure to a chemical in the workplace, the written hazard communication program will be on the list of documents the compliance officer will ask to review.

An employer must have a written program that complies with the regulation and contains the following:

- a chemical inventory that lists each chemical present at the worksite
- a description of the labeling system used for chemicals, a designated person to label chemicals, and procedures for updating label information when necessary
- a designated person responsible for obtaining and maintaining SDSs, including procedures to follow for obtaining updated, corrected, and current SDSs

- a designated person to conduct hazard communication training and a description of how that training is to be conducted
- a description of hazards in non-routine tasks and hazards associated with chemicals in unlabeled pipes in work areas

An employer on a multi-employer worksite must describe in their program how they will provide other employers with onsite access to SDSs and their in-house chemical labeling system. A multi-employer worksite exists when a host employer allows other employers and their employees to access the worksite to perform any type of work activities. The host employer must inform the outside employer about its hazard communication program regarding chemicals to which the outside employer's employees may be exposed.

Conversely, if the outside employer is bringing any hazardous materials onto the host employer's worksite, it must inform the host employer regarding such materials. Employees must know how to access the hazard communication program and no barriers should exist to access the program. An employer who does not use hazardous chemicals at the worksite but whose employees are exposed to chemicals used by other employers must nonetheless develop a hazard communication program and train their employees on the hazards of chemicals in the work areas. OSHA will issue a citation if an employer fails to include the method for informing other employers on site about SDS access, precautionary measures needed, and the workplace labeling system used.

### Safety Data Sheets

Employers must maintain SDSs for each hazardous chemical used in the workplace and make them available to all employees or readily available when requested. Employees must have immediate and unrestricted access to the SDSs, whether in paper or electronic format. For example, SDSs provided at computer kiosks must not be password protected or passwords must be located at the kiosk to ensure the employee is provided unrestricted access. Requiring employees to perform an Internet search to locate an SDS is not allowed. If SDS access is provided electronically, the employer must ensure a backup procedure or system exists for accessing the data sheets in the event of a failure of electric equipment. If maintained on paper, employers must provide copies of SDSs to employees upon request and make them accessible during each shift.

Chemical manufacturers and distributors must transmit SDSs with the first shipment of a chemical to each downstream location that receives the material. Electronic transmission is acceptable if the receiving employer consents to this format. Manufacturers or importers who become aware of significant new information must update their SDSs within three months.

During an inspection, OSHA will examine a sample of SDSs to determine they have been obtained or developed in



accordance with regulation. Employers are not responsible for the content and accuracy of an SDS provided to them by the manufacturer, importer, or distributor, unless the employer changes the SDS. OSHA will cross-check a representative number of SDSs against the employer's inventory list to determine whether the employer is in compliance with the requirement to maintain an SDS for each hazardous chemical in the workplace.

The agency will also check to see that an SDS is readily accessible to employees while in their work area and if made available electronically, OSHA will check to see that the employer has an adequate backup system to address emergency situations. OSHA will ask a number of employees whether they know how to access the program and the SDS sheets at the worksite. The regulation requires this training before a new employee begins his/her employment. This issue becomes more complex when the host employer uses temporary staffing service employees who are provided on short notice; however, training requirements apply to these temporary employees as well and the training should be documented with sign-in sheets or other documentary methods.

While all outdated material SDSs should be replaced with data sheets in compliance with the new GHS classification system, employers are cautioned against discarding outdated material SDSs and should undertake a close analysis of these sheets against the new SDS. The new data sheets could specify new hazard classifications and compliance obligations for the employer with respect to storage, necessary personal protective equipment when utilizing a chemical, and/or additional air monitoring to confirm compliance with permissible exposure limits. Maintaining the old material data sheets can also protect an employer against future workers' compensation liability when an updated SDS subsequently establishes new and different obligations, as long as the employer followed the requirements of the material SDS in existence at the time of an employee accident or injury. The material SDS may also indicate the chemical had no previous health hazards and provide defense from an occupational disease claim.

#### Chemical List

An employer must maintain a chemical inventory that lists each chemical present at a worksite, including those that are stored and not in use. Employers may choose to have one master list for the entire facility or separate lists for separate

work areas. The chemical inventory must be updated each time a new chemical is introduced in the workplace.

During an inspection, OSHA will ask to review the employer's chemical list and cross-check a representative sample of chemicals found at the workplace. OSHA will not issue citations for failure to list consumer products, such as household cleaners, when they are used in the workplace in a manner similar to that of a normal consumer. For example, a chemical product used by an employee to clean his or her personal work space is not covered by the standard. To determine whether a chemical may be exempt, employers must determine how the chemical is being used, and at what concentration, to determine levels of potential exposure to employees. Also factored in to the consumer product analysis is the frequency of use and length of time using the product during a work shift, and whether it exceeds the normal or expected use by a consumer.

#### Labels

Every container in the workplace containing a chemical must have clear and legible labeling. Manufacturers must label chemicals with the following required elements: a product identifier, precautionary statements, hazard statements, pictograms, a signal word such as "danger" or "warning," and the name, address, and telephone number of the chemical manufacturer or other responsible party. Manufacturers must update labels within six months of learning new information about the chemical.

Employers who use alternative labeling systems must ensure their secondary, in-house labels provide general information on the hazards of the chemicals and specific information about physical and health hazards associated with the chemical. These in-house labels need not include pictograms or precautionary or hazard statements. Employers who use alternative labeling systems instead of labels containing complete health effects information will, in any enforcement action alleging inadequate labeling, bear the burden of establishing they have achieved a level of employee awareness equal to or greater than what would have been achieved with the original label. The key to a successful in-house label is the ease with which employees can correlate the visual warning on the in-house container with the applicable chemical and its appropriate hazard warnings.

*Continued on page 33*

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# EPA Continues to Change Course

*Editor's note – Robert T. Vogler is director of environmental affairs at Valley Proteins Inc. and chairman of the National Renderers Association's Environmental Committee. He holds a juris doctor degree from Duquesne University and bachelor of science degrees in agricultural engineering and agricultural science from Rutgers University.*

For the first time in recent memory, there is a net decline in environmental regulatory burdens affecting the United States (US) rendering industry. The Environmental Protection Agency (EPA) *Year in Review 2017-2018* report indicates that in the last year the agency finalized 22 deregulatory actions expected to save over \$1 billion in compliance costs. EPA has initiated work on an additional 44 deregulatory actions and reconsideration of over a dozen regulations.

The announcement of intent to roll back a regulation is the first step in a tedious process that must be undertaken if the rollback is to have some permanence. Rewriting policy or guidelines that have the effect of reducing regulatory burdens can be just as quickly reversed under future presidential administrations; thus, regulations and other enforceable law must be adopted in order for these initiatives to have a lasting effect. Additionally, the efforts to change policy and repeal or reverse regulations are subject to court challenges that will ultimately affect the final outcome.

## Waters of the US

In 2015, EPA finalized the rule revising the definition of “waters of the US” (WOTUS) and greatly expanding the agency's jurisdiction over activities in wetlands, intermittent streams, drainage ditches, and upland areas. This was purported to clarify the scope of federal jurisdiction over upland and isolated waterways but was widely seen as a huge power grab by EPA and the Army Corps of Engineers.

In June 2017, EPA commenced a rulemaking to repeal the 2015 WOTUS regulation and replace it with a rule that would be more aligned with the current legal status quo and keep federal regulation of water consistent with court decisions on what constitutes federal jurisdictional “waters of the US.” In January 2018, the US Supreme Court determined that federal district courts have jurisdiction to hear challenges to the WOTUS rule, not the US courts of appeal. Following this ruling, the Court of Appeals for the Sixth Circuit lifted its nationwide stay on enforcement, a move that would have allowed the 2015 WOTUS rule to go into effect in most parts of the United States.

On January 31, 2018, EPA issued a final rule that delays the implementation date of the 2015 WOTUS rule while it continues to work on the replacement proposal. Meanwhile, the litigation challenging this rule that was originally filed in the US District Court for the District of North Dakota continues. As this moves forward, EPA may be placed in a position where it is defending in court the very rule it is in the process of replacing.

EPA is expected to finalize the revised WOTUS rulemaking by the end of this year.

## Applicability of Clean Water Act to Groundwater

On February 1, 2018, the US Court of Appeals for the Ninth Circuit upheld a lower court's ruling in the case of *Hawaii Wildlife Fund v. County of Maui* that extends federal jurisdiction to pollution through groundwater that finds its way to federally-regulated surface waters. The court found that a leaking underground injection well that was discharging pollutants into the Pacific Ocean constituted a “point source” subject to federal permitting under the Clean Water Act. Similar cases are pending in other federal courts. It is likely that ultimately this question will be put before the US Supreme Court for decision.

In response to the Ninth Circuit decision, on February 20, 2018, EPA requested comments on whether the discharge of pollutants to groundwater that then ultimately finds its way to surface waters should be regulated under the Clean Water Act. This may signal an attempt by EPA to take steps to counteract the court decision. The concern is that if federal jurisdiction is extended to include pollution of groundwater, this will open the door for federal regulation of groundwater withdrawals and any activities or developments on the surface that could potentially affect groundwater quality.

## Ozone Rule Status Report

In 2015, EPA adopted a new National Ambient Air Quality Standard for ground-level ozone, lowering the standard from the current 75 parts per billion to 70 parts per billion. This lower level was predicted to place a number of expanding, robust economic areas of the country into nonattainment status, including metro areas in 51 counties in 22 states such as California, Texas, Arizona, New Mexico, Oklahoma, Louisiana, Michigan, Ohio, Pennsylvania, New York, Virginia, North Carolina, and others. A nonattainment designation will, among other things, target stack controls of volatile organic compounds (VOCs) and nitrogen oxide (NO<sub>x</sub>) emissions from projects in nonattainment areas.

Under the rule, states were originally required to submit to EPA the designations of areas as nonattainment in their states by October 2017. In June 2017, EPA delayed the date for designation by one year, to October 2018, during which it was to reconsider issues such as background ozone levels and international transport of ozone. In response to a legal challenge, on October 30, 2017, EPA reversed course and withdrew the delay, thereby allowing the implementation of the new standard to move forward. EPA has indicated it is planning to address background concentrations and other sources of pollutant levels in its review of the 2015 ozone standard that is to be completed by 2020.

In November 2017, EPA designated about 85 percent of the country as being in attainment and in May 2018

made additional designations that identified 51 nonattainment areas in 22 states. Ozone levels have dropped by more than 20 percent since 1990 and continue to drop as emissions of the precursors to ozone (NO<sub>x</sub> and VOCs) continue to decrease due in large part to changes in fuel usage. As a result, there are approximately 10 percent fewer counties in nonattainment status under the stricter 2015 standard as compared to when designations were made under the 2008 standard.

### No More Secret Science

On March 19, 2017, the EPA announced it will no longer rely on “secret” scientific data to justify regulations. Since the 1990s at least, EPA regulators and agency-funded researchers have privately produced certain data to support regulations that some observers have suggested further a political rather than scientific agenda, without disclosing the data or subjecting it to public review and scrutiny. In the mid-1990s, as justification to regulate soot and fine particulate matter (PM 2.5), EPA relied on non-disclosed data and questionable statistical analysis that led to the conclusion that PM 2.5 leads to death. EPA refused to release the data despite calls to do so by the agency’s own Clean Air Science Advisory Committee and US Congress.

On April 24, 2018, EPA published for comment a proposal to ensure that studies used to justify EPA rulemakings are clearly identified and available for review.

### New Source Review Air Permitting

EPA has revised its policy on how emissions increases are measured to determine whether a project’s impacts are large enough to trigger New Source Review (NSR) permitting. This will allow for initial evaluation of a facility to determine NSR applicability based on both increases and reductions in emissions resulting from the project. In the past, only emissions increases from newly built or modified plants were considered, and if large enough to trigger NSR, then a complex, multi-year analysis of emissions for the entire facility would be required, even for projects that actually might reduce emissions overall. Many states will need to modify their regulations in order to implement this standard. **R**

### Law Continued from page 31

During an inspection, an OSHA compliance officer will evaluate whether the product identifier on a chemical label can be cross-referenced with the SDS and chemical inventory list at the workplace. OSHA will review training, SDS procedures, and conduct employee interviews to determine employee knowledge of chemical hazards in the workplace. OSHA is looking to determine whether employees are aware of the hazardous effects of the chemicals to which they are potentially exposed.

### Training

Employees must be trained on hazardous chemicals in their work area at the time of their initial assignment. They must also be trained when a new hazard is introduced in the workplace or when they are potentially exposed to chemicals used by other employers. This does not mean that training is required each time a new chemical is introduced to the workplace but rather each time employees are subject to a new or different hazard.

Training must cover the contents of the employer’s hazard communication program, including the chemical labeling system, how to obtain and use the hazard information on an SDS, knowledge of the physical and health hazards of chemicals in the work area, and measures employees can take to protect themselves from the hazardous chemicals, including work practices, emergency procedures, and the use of personal protective equipment. Interactive training is required that provides an opportunity for employees to ask questions to ensure they understand the information. In addition, if employees receive job instructions in a language other than English because they cannot read English or are not literate, training must also be provided in that foreign language either in writing or verbally using a translator or bilingual employee. The employer will have the burden of demonstrating that the employee understood the training.

During an inspection, OSHA will review the employer’s written training documents as well as the format of the training provided to employees. OSHA will evaluate the effectiveness of the training program by conducting interviews with management and employees to determine if they have an adequate understanding of workplace chemical hazards. During an inspection, OSHA will typically hand an SDS sheet to employees and ask them if they were trained and how to read the SDS. If the employee cannot demonstrate such knowledge, the employer can be cited.

### Conclusion

In a regulatory inspection involving an employer utilizing any type of chemical substance in the workplace, OSHA will request to inspect the employer’s hazard communication program, chemical list, employee training materials, SDSs, and chemical labels. An employer who develops and administers an effective program will reduce the potential for employee injury or illness, workers’ compensation claims, as well as its regulatory liability. **R**

## Letters

### Dear Editor,

Thank you for sending me the magazine. It has been very helpful in conveying the nutritional value of animal by-products. They are very valuable in a multitude of ways.

Edwin T. Moran Jr., Professor Emeritus  
Auburn University, Auburn, Alabama

**Render welcomes your opinions.** E-mail correspondence to [editors@rendermagazine.com](mailto:editors@rendermagazine.com), or fax to (530) 644-8429. Letters can also be sent via postal mail to Editor, Render Magazine, PO Box 1319, Camino, CA 95709. Render reserves the right to edit letters for length, content, and clarity.

## Canadian Renderer Honored

Gordon Diamond, one of the founders of West Coast Reduction Ltd. in Canada in 1964, and his wife, Leslie, have received the Greater Vancouver Board of Trade's prestigious Rix Award for Engaged Community Citizenship in recognition of their many philanthropic endeavors and decades of community service. The couple was honored in April during a gala banquet attended by over 1,000 guests in Vancouver, BC. The Rix Awards are presented each year in honor of the late Dr. Don Rix, a renowned philanthropist who served as the Greater Vancouver Board of Trade's chair from 2008 to 2009.



Leslie and Gordon Diamond

Gordon and Leslie Diamond are well-known in the Vancouver community for their donations to the VGH & UBC Hospital Foundation that led to the creation of the Gordon and Leslie Diamond Health Care Centre, one of the top facilities of its kind in Canada. In addition, Gordon and his father, Jack, also formed the Diamond Foundation, one of Canada's largest private family foundations, which has benefitted countless Vancouver residents and British Columbians over the past three decades.

Since 1984, the Diamond Foundation's donations have been distributed in the areas of education, health care, social services, and at-risk youth initiatives. Dozens of local organizations have received financial support from the foundation over the years, including the BC Cancer Foundation, BC Women's Hospital, University of British Columbia, Simon Fraser University, Jewish Federation of Greater Vancouver, Vancouver Art Gallery, United Way of the Lower Mainland, King David High School, the Vancouver Holocaust Education Centre, and many more.

Leslie has a long history of giving to the people of British Columbia through her financial support and personal involvement with many organizations. She is a director of the Diamond Foundation and has served on the boards of many organizations such as the Vancouver Foundation, United Way, YWCA, and the BC Women's Hospital, to name a few. She recently also co-chaired the Vancouver Chinatown Foundation's 2017 Autumn Gala.

In addition to the health care center in Vancouver, the couple also established the Leslie Diamond Women's Healthy Heart Clinic at Vancouver General Hospital, the Sadie Diamond Breast Imaging Center at B.C. Women's Hospital, and made a major donation to the Neonatal Intensive Care Unit at B.C. Women's Hospital.

## G.A. Wintzer Awarded

The Ohio Poultry Association has presented renderer G.A. Wintzer & Son Co. in Wapakoneta, Ohio, with its Legacy Award. The award recognizes individuals who are committed to advancing the mission and values of the state's egg, chicken, and turkey industries.

A sixth-generation family operation, family members of G.A. Wintzer & Son are still actively involved in the business. The company employs approximately 120 local residents and has a fleet of 200 trucks and trailers that travel over two million miles per year. The 170-year-old renderer services a vast amount of layers and feed mills throughout Ohio and much of Indiana. The company collects used cooking oil from thousands of restaurants and meat trimmings from a variety of grocery stores, food processors, butcher shops, and small food operations throughout a five-state region. In addition, G.A. Wintzer & Son collects millions of pounds of raw material per week from meat processors and recycles it back into usable and valuable commodities for feed and fuel.

## Darling Sells Terra Renewal Services

Darling Ingredients Inc. has sold its Terra Renewal Services (TRS) industrial residuals business to American Residuals Group LLC. TRS is a provider of environmental services focused on the collection, hauling, and disposal of non-hazardous, liquid, and semi-solid waste streams from the food processing industry. The transaction price is approximately \$80 million in cash. Darling Ingredients Chairman and Chief Executive Officer Randall C. Stuewe said, "From time to time we evaluate the strategic fit of all our businesses. While TRS was a consistent performing business for us, we made a decision to sell the business allowing for greater focus and attention to our world of growth strategy."

## Dupps Recognized for Safety

The Dupps Company of Germantown, Ohio, was recently honored with the 2018 Safety Award of Merit from the Fabricators and Manufacturers Association. The award is presented to companies posting an injury and illness incidence rate that is better than the published Bureau of Labor Statistics rate by 10 percent or greater. Dupps also recently received the Ohio Healthy Workplace Gold Award. It is the sixth year in a row, and the third consecutive year at the gold level, that the Healthy Ohio Business Council has recognized Dupps.

## Mahoney Buys Arizona Company

Mahoney Environmental, a leading recycler of used cooking oil for 65 years based in Joliet, Illinois, has purchased Green Oil LLC (doing business as Green Dining), a recycler of used cooking oil and grease trap waste in Phoenix, Arizona. By purchasing Green Dining, Mahoney now provides services in 31 states.

## Meisinger Joins Merck

After working for the National Renderer Association (NRA) for six years, Dr. Jessica Meisinger has joined the veterinary and consumer affairs team at Merck Animal Health as their consumer affairs account manager. She will focus on developing partnerships with key stakeholders in the food and companion animal marketplace. Meisinger previously served as director of education, science, and communication for the NRA and Fats and Proteins Research Foundation.

"We are excited for Jessica as she moves into this new role," said NRA President Nancy Foster. "Her passion for rendering and science-communications advocacy will be missed."

Meisinger has a double bachelor of science degree in animal science and sociology from Iowa State University, a master of science in meat science and muscle biology with a focus on beef flavor from the University of Nebraska, Lincoln, and a PhD in meat science from Colorado State University with a focus on beef export.

## Render Hires New Associate Editor

*Render* magazine has hired a new associate editor beginning with this June issue—James McGibbon, a freelance editor and owner of RedPen Editorial Services in Sacramento, California. He holds a master of arts degree in English from California State University, Sacramento, with advanced coursework in composition, grammar, and instruction. While at university, he worked directly with undergraduate students providing editing and tutoring, and coached graduate students writing their theses. McGibbon also taught various writing workshops and tutored dozens of international students on writing in English. After graduating, he spent three years producing training materials for various industries, honing his skills as well as developing extensive technical editing experience.

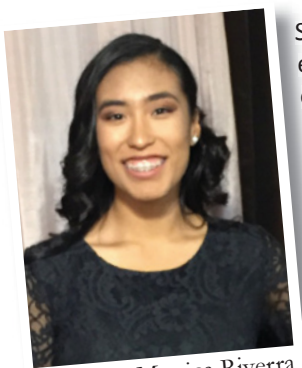
## Diversified Labs Awards Inaugural Scholarships

Diversified Laboratories Inc. has awarded its new Trajectory 2-4-6-8 University Scholarship to two graduating high school seniors, Emma Vogler and Monica Riverra, for the 2018–2019 academic year. This new scholarship is aimed at students who realized the importance of education after a slow academic start and are children of employees in the rendering industry.

Vogler, whose father is employed by Valley Proteins Inc. in Winchester, Virginia, has expressed an interest in studying national security/political science while participating in the Corps of Cadets at Virginia Polytechnic Institute and State University. She has been active in her local 4-H Club throughout high school, serving as secretary, vice president, president, and junior leader. Vogler's accomplishments include holding a position as a youth orchestra member and principal cellist for the Shenandoah Valley Chamber Orchestra and being inducted into Phi Theta Kappa Honor Society at Lord Fairfax Community College as a high school student. One letter of recommendation characterized her as "a sure bet, someone who will succeed on sheer will power, who is already articulate about the world and the people in it, who sets realistic goals, who turns opportunity to advantage, and, as all measures indicate, someone who demonstrates intelligence within the arts, in husbandry, and in her college level work."



Emma Vogler



Monica Riverra

Riverra, whose father works at SRC Companies in Sacramento, California, is open to all new pursuits and is entering the University of California, Santa Cruz, focusing on general education until she decides on a major. She has been a member of the Monsterz Inc. Dance Crew for the past four years as well as a multi-year member of her high school tennis team and Key Club. Displaying her concern for the environment, Riverra was a founding member as well as secretary and vice president of her school's environmental club, the Burbank Environment Action Service Team. In addition to her school commitments, she has volunteered at the Sacramento Zoo's *Boo at the Zoo* event and participated in a variety of community service projects with the Upward Bound Program. The

IB Program Coordinator at Riverra's high school describes her as "an academic standout" whose work "will always meet, if not exceed, expectations." She states that "Monica has an innate passion for learning that cannot be taught" and that she "stands out as a remarkable student to know and to teach." **R**

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machine. Stainless construction,  
40 hp, main drive motor. All electric  
switchgear H-beam mounted.  
Rebuilt, but used very little. \$60,000.  
**WANTED** - Used Anco 10" 202-6  
crax press or any parts for 202-6.  
Contact Bud at (704) 485-4700  
or e-mail [erco@ctc.net](mailto:erco@ctc.net)

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Industrial Steam .....	5
Kalsec .....	2
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# 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



**APPROXIMATELY 50%** of the animal is considered inedible by Americans and goes to renderers including: bones, fat, blood, feathers & some internal organs

**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

**1.92 BILLION POUNDS**

Super Foods

of scraps, fat, bone, expired meat & used cooking oil annually

### Renderers collect

**4.4 BILLION POUNDS** of used cooking oil per year in the U.S. and Canada

## 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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Baker Commodities produces a top quality protein meal that can be utilized by the animal feed and organic fertilizer industries. We adhere to HACCP, APPI, USDA and FDA guidelines and regulations to ensure the products are safe and screened for pesticides. Meat meal is the dried end result of the rendering process. Baker Commodities only accepts high quality raw materials that are heated to kill pathogens that may be present, and then dried and ground to a particle size that allows incorporation into feed rations and fertilizers. This process produces a quality grade meat meal that is highly digestible and can actually be a more abundant source of protein than the whole meat from which it was made.



**Baker Commodities, Inc.**

Recycling for Life