

Render

The International Magazine of Rendering

August 2015

**Europe remains
Complicated**

**While Australia
gets Innovative**



**Mobile users, tap
here to download a
PDF of this issue
to your device**

**New Research
Refutes Prior Study
on Feather Meal**

**Good Prospects for
UCO in EU Biodiesel?**



Sustainability, for 50 years.

Since 1964, West Coast Reduction has been proud to play an essential role in sustainability of our local food supply. We recycle waste from the food industry and turn it into usable products thereby protecting our environment and helping ensure regional sustainability. To learn more, watch the Local Food Heroes video at www.wcr.com



WEST COAST REDUCTION LTD.



Haarslev Industries

Prebreakers and Pumps

Haarslev Pre-Breakers and Crushers have been installed in hundreds of rendering plants worldwide and Haarslev is the established leader in crushing machines for the rendering industry.

The Haarslev lamella pumps transport animal by-products in closed pipe lines over long distances. The high capacity and efficiency make our pumps the ideal choice when planning a new plant or when upgrading existing facilities.



Haarslev Inc.

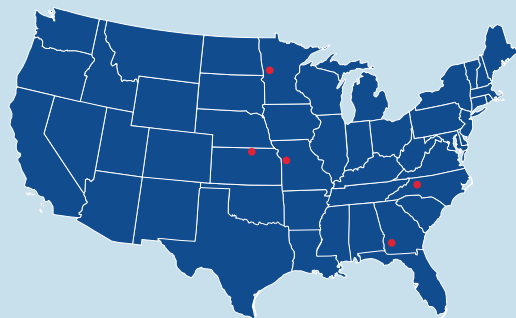
9700 NW Conant Avenue, Kansas City, MO 64153

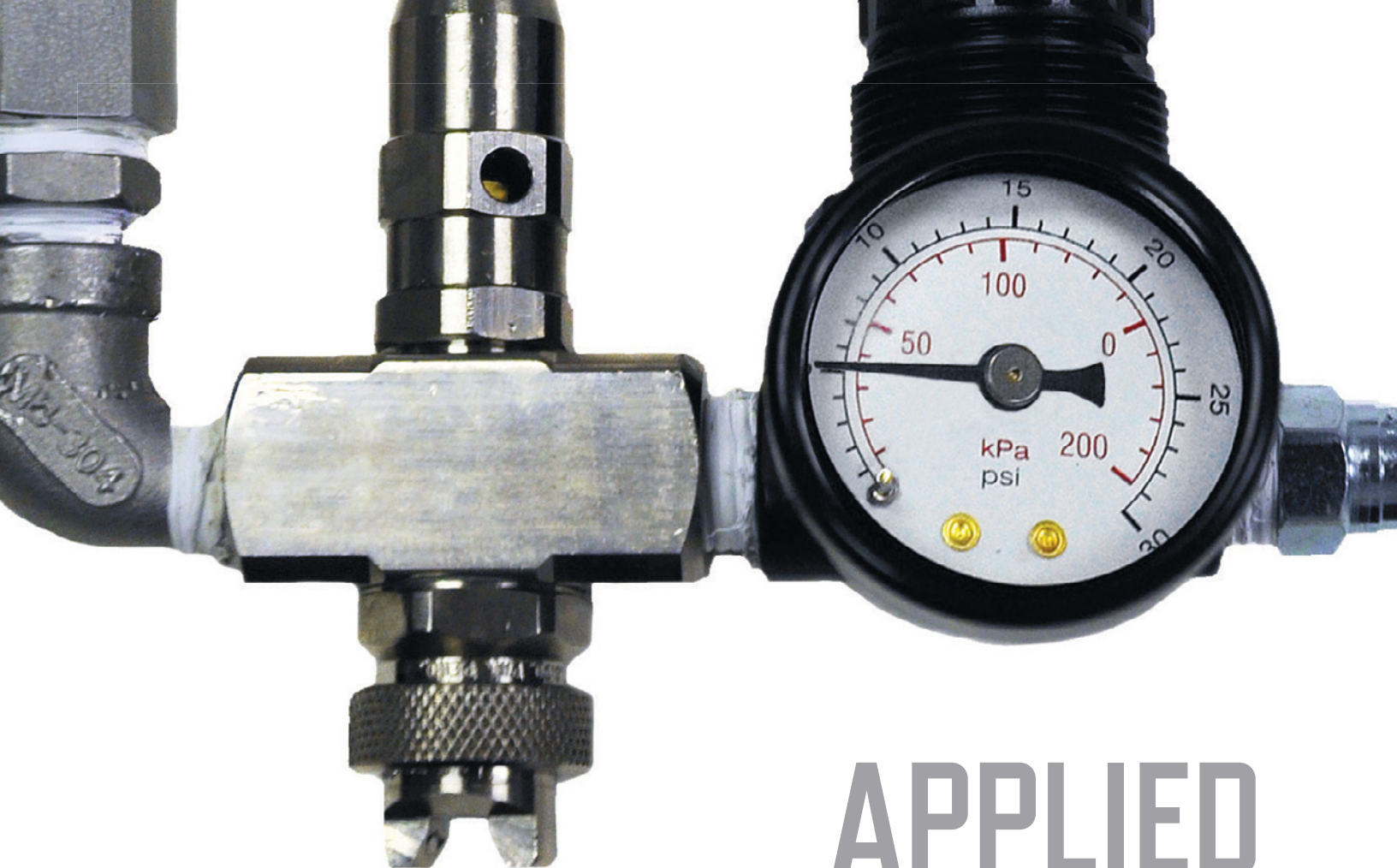
Tel. (816) 799-0808 • Fax (816) 799-0812

E-mail: info-usa@haarslev.com • Web: www.haarslev.com

Greensboro, NC • Belleville, KS

Perham, MN • Shellman, GA





APPLIED KNOWLEDGE

**At Kemin, we know what works and how
to apply it. Best of all, we can prove it.**

Through our knowledge and experience, we have built valuable relationships that allow us to provide unique product solutions and services to the rendering industry.

From our Naturox[®] and PET-OX[®] Brand Antioxidants to custom application equipment to our Customer Service Laboratory, you can trust the Kemin brand to go above and beyond.

Contact a Kemin rendering expert for more information.

1-877-890-1462



INSPIRED MOLECULAR SOLUTIONS™



WWW.KEMIN.COM



*"We're committed to the customer,
every hour of every day."*

**Larry Tully, Field Service Manager, (far left)
and the Field Service Team.**

Dupps Field Service

The Dupps family includes all the dedicated and hard working employees whose efforts, loyalty and pride have made our company the best in the business. Compare our level of knowledge, experience and service—we're sure you'll agree that Dupps is your best choice.



"For us, the bottom line is to be there when our customers need us. They operate Dupps equipment because it offers top performance and reliability; and it's our job to keep it that way . . . any time, day or night.

"Every minute of downtime costs money, so it's our policy to have a service representative ready to work at a customer's plant in 24 hours or less. That's why we maintain the largest service department in the business, with the right tools and parts to do the job.

"Every representative knows Dupps equipment inside and out, so we do the job right as well as quickly. Experience pays off in other ways too — we can help make sure equipment is properly maintained so it operates at peak performance, and to avoid expensive repairs down the road.

"Our motto is 'Dupps won't let you down'; for our team that means we're committed to the customer, every hour of every day."

**Explore Dupps
systems, service & support
www.dupps.com • (937) 855-6555**



The Dupps Company • Germantown, Ohio • U.S.A.



On the Cover

Rendering groups in Europe and Australia held their conferences.

pgs. 10 and 16

Features

10 Europe remains Complicated

Yet industry forges ahead.

12 European Production

Stays stable.

16 Australian Renderers

Vow to innovate.

26 Good Prospects

For used cooking oil in EU biodiesel?

Departments

6 View from Washington

An alphabet soup of rulemaking.

8 Newsline

Tallow and OSHA focus of Midwest renderers.

20 From the Association

Renderers venture to Capitol Hill.

22 Biofuels Bulletin

Industry responds to EPA proposed RFS volumes.



28 International Report

World renderers forge ahead into the future.

30 ACREC Solutions

New research refutes prior study on feather meal.

32 Tech Topics

Taking control of energy costs.

34 Labor and the Law

The perils of PPE - are you prepared?

36 Mark Your Calendar

38 People, Places, and...

40 Classifieds

Editorial Offices

2820 Birch Avenue
Camino, CA 95709

Phone: (530) 644-8428

Fax: (530) 644-8429

editors@rendermagazine.com

www.rendermagazine.com



Editor and Publisher Tina Caparella

Associate Editor Lindsay O'Connor

Magazine Production Sierra Publishing

Contact the National Renderers Association at
500 Montgomery St., Ste. 310, Alexandria, VA 22314
(703) 683-0155 Fax (571) 970-2279
renderers@nationalrenderers.com
www.nationalrenderers.org

Render (ISSN 0090-8932) is published bimonthly under the auspices of the National Renderers Association by Sierra Publishing, 2820 Birch Avenue, Camino, CA 95709 as a public service to the North American and global rendering industry. It is intended to provide a vehicle for exchange of ideas and information pertaining to the rendering and the associated industries. *Render* is distributed free of charge to qualified individuals upon written request. Publisher reserves the right to determine qualification. Periodical postage paid for at Camino, CA, and additional mailing offices.

© 2015 All rights reserved.
Printed in USA

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

Renderitorial

Render's editor enjoyed a whirlwind summer of attending rendering meetings here in the United States and in faraway lands – Poland in early June and Australia in late July. All three conferences were well-attended by industry folk and featured informative and educational topics on issues affecting renderers on three continents. This editor even gave a presentation herself in Australia, enlightening those down under on how *Render* came to be and where it is headed in the future. Read more about these symposiums in this issue of the international magazine of rendering.

At each meeting, it was expressed repeatedly how *Render* is a well-published business magazine for the rendering industry. The articles, format, and advertising content were all mentioned as being invaluable for not only informing those involved with rendering, but also at educating regulators, customers, and raw material suppliers about the essential and sustainable rendering industry. Ah, shucks, thank you all for the glowing reviews.

It was apparent at each meeting that everyone involved in and with rendering has a passion for what they do, for what they contribute to animal agriculture, and to maintaining a viable environment. Gatherings such as these conferences reaffirm that renderers are innovative, resilient, and determined to go forth into the future, battling any evil forces that may stand in their way.

Raw material supplies are a challenge across the three continents *Render* visited this summer and export markets remain competitive and complicated, but banding together as one entity to inform and educate outside forces will ultimately result in success. It will take resilience, determination, and the strength of many to reach those accomplishments that will keep companies moving forward with the next generation at the helm. There may be some casualties along the way, but those who stand strong in their fight will remain to process another day.

Render's editor appreciates the welcoming hospitality always enjoyed at each conference attended, and hopes our readers find the information brought back helpful and inspiring. **R**



Not just another number

From odor management to nutrient management, we are committed to delivering exceptional client service

To learn more about our agricultural services, email michael.beerends@ghd.com, call 1 888 572 5885 or visit www.ghd.com

GHD is a proud member of the National Renderers Association



INDUSTRIAL STEAM

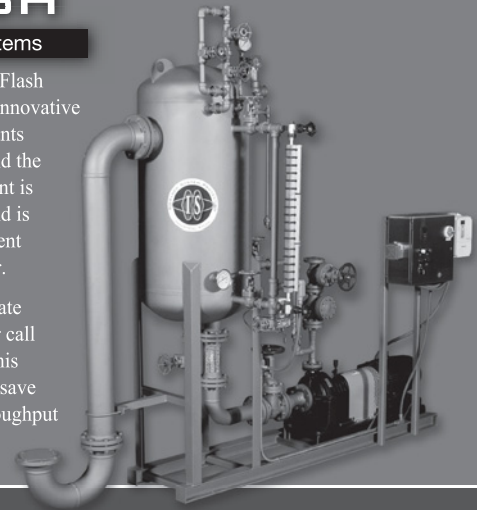
• PERFORMANCE • QUALITY • EXPERTISE
• RESPONSIVE • TECHNICAL

ZERO FLASH

High Pressure Condensate Systems

Industrial Steam first introduced the Zero Flash over 40 years ago. We continue to create innovative methods of saving energy in rendering plants through the conservation of condensate and the recovery of lost flash steam. Our equipment is built with rugged, heavy duty materials and is designed to withstand the harsh environment directly adjacent to a cooker or evaporator.

If you are currently sending your condensate to a vented tank or a pressurized deaerator call Industrial Steam for an analysis to see if this equipment is right for your plant. It could save 10% of your fuel bill and increase the throughput of existing equipment.



DEAERATORS AND CONDENSATE RECOVERY EQUIPMENT

1403 SW 7th Street, Atlantic, Iowa 50022

(888) 783-2615 Tel (712) 243-3440 Fax www.Industrialsteam.com

An Alphabet Soup of Rulemaking

Is it only in the United States (US) where a national legislative body shifts from doing the country's business (e.g., passing bills, fixing problems, etc.) to viewing all policy decisions exclusively through the prism of presidential politics a full 18 months before the national election? For months, US political pundits have warned the American public that if Congress does not act on something, anything, in the policy realm by the end of July, then the haze of presidential campaigns and partisan politics will obscure all substantive action.

Given that Congress rarely demonstrates efficiency of thought or action unless confronted by a deadline, how many issues are likely going to be in limbo come September 1, 2015? Keep in mind that big headline issues, including immigration reform, spending/sequestration, climate change, and other over-politicized issues, will not get major attention until early in 2016 as they emerge to shape who gets to be the next US president.

In the regulatory arena, all eyes in Congress are focused squarely on the Environmental Protection Agency (EPA), the federal poster child for what critics contend is unprecedented regulatory overreach. The key to congressional action to block agency rules is that if approved, the vote needs to be at least two-thirds of the voting chamber to make the action veto-proof. The following are controversial rulemakings – proposed and final – at which agriculture, industry, and Congress have taken dead aim, and which President Barack Obama vows to veto if Congress is successful.

Renewable Fuel Standard: In late May, EPA finally put out its proposed Renewable Fuel Standard (RFS) for biomass-based fuels for 2014, 2015, and 2016, and in the case of biodiesel, 2017. The biodiesel industry – including the National Renderers Association and National Biodiesel Board – thanked EPA for setting biodiesel/renewable diesel RFS levels just south of actual production totals, but then urged the agency to consider increasing the annual RFS to at least coincide with or exceed actual biodiesel and renewable diesel production. Biodiesel makers also urged the agency to be keenly aware of impending imports from Argentina and elsewhere that could erode the higher RFS for biodiesel.

In mid-July, more than 300 corn growers showed up in Washington, DC, to rally for a higher RFS for corn ethanol, putting a face on the ethanol industry's words of frustration with the EPA corn ethanol RFS level. The Renewable Fuels Association wants EPA to follow the letter of the RFS law, meaning set the RFS levels to those written into law, which are significantly higher than what EPA has proposed.

At risk of heresy, EPA does struggle with a seriously outdated RFS-authorizing law that enshrines in statute aspirational levels of various biofuels to be mixed with gasoline on an annual basis. The agency quietly wishes for a simpler, more direct authority on mandating biofuel blending, but the big push for Congress to take up the RFS and fix it or kill it are

livestock and poultry producers, the petroleum industry, and environmental and hunger groups.

There is increasing interest in the halls of Congress to do something with the RFS, but repeal is unlikely. Whether a "modernization" of the RFS law is possible is unknown given political winds. It is one of those damned-if-you-do, damned-if-you-don't issues; members of Congress find themselves caught squarely between their crop farmers who make/supply corn ethanol and soy biodiesel and the folks who compete to buy these same crops for feed.

Biodiesel/Renewable diesel tax credits: If the gods of legislation watch over Senator Orrin Hatch (R-UT), chair of the Senate Finance Committee, he will have successfully pushed through his committee's short-term highway program extension and will have capped off his July by approving a bill renewing for two years – with benefits retroactive to January 2015 – several expired federal tax credits, including the \$1-per-gallon biodiesel/renewable diesel credits. Also on the list for renewal is the alternative fuel mixture tax credit, which allows a 50-cent-per-gallon credit against companies' federal excise tax liability if they use by-products of their manufacturing process as boiler fuel.

Hatch had sought to extend the expired tax breaks earlier in the year, but House Ways and Means Committee Chairman Paul Ryan (R-WI) wanted to hold back in hopes of putting together some kind of major tax reform package by the end of the year. While tax and revenue bills nearly always originate in the House, Hatch decided to move without concurrence of the House tax writers.

Jump-starting the extenders debate by moving ahead of the House puts pressure on Ryan to prioritize his committee's tax actions. While he would prefer to roll tax changes as offsets to spending on highways and renewal of the extenders package into a nice neat bundle, that likely will not happen, certainly not until the very end of the legislative year in mid-December.

Federal highway program reauthorization: Congress has not approved a multi-year reauthorization of federal highway program spending since the early 2000s, opting instead for short-term extensions of current authority for the programs that funnel money from the federal treasury to the states to pay for highway, bridge, and urban commuter system repairs and rebuilding. Both the Senate Energy and Public Works Committee and the House Committee on Surface Transportation and Infrastructure have multi-year GOP reauthorization bills ready to go once a funding formula is figured out. In mid-July, the Democrats came out with their bill, a reworked version of Obama's so-called "GROW America Act," a \$478 billion, six-year bill.

What will not be part of another short-term highway program extension is language allowing states to permit 97,000-pound trucks with six axles and extra braking power on interstate highways within a state. That action will wait for House

transportation final action on a multi-year reauthorization not expected until the second quarter of 2016.

The issue of achieving a formal, modernized, multi-year transportation reauthorization bill hinges on funding as most of the policy issues are non-contentious. These federal programs are essentially funded exclusively through the Highway Trust Fund (HTF), which is maintained through income from the federal gasoline tax. The HTF is projected to be bankrupt by the end of August because Congress keeps authorizing new programs with no new money, automakers are building more fuel-efficient cars, and fewer miles are being driven. Add to those factors the fact Congress has not increased the federal gas tax since 1993, and in election mode, a tax increase is not likely.

In mid-July, the House passed an \$8 billion, five-month extension – through December 18 – of these programs. The current temporary extension was to run out at the end of July and lawmakers want more time to figure out a funding mechanism by which to ultimately pass a multi-year reauthorization. Secretary of Transportation Andrew Foxx warned the House and Senate that without an extension past July 31, the Department of Transportation would take on no new projects and have to delay reimbursement to the states for surface transportation projects by August 1. As of this writing, the Senate was trying to cobble together a two-year bill, but the outcome of that effort was in doubt because several members of that chamber were trying to hold hostage a highway extension to reauthorization of the Export-Import Bank, a move which has drawn filibuster threats.

Both chambers and both sides of the aisle have looked at funding a multi-year bill through a one-time “repatriation” of US corporate profits held overseas to avoid taxes, but

cannot seem to agree on the rate at which those profits will be taxed. Raising the gas tax has been discussed and has some support, but will not happen given GOP general aversion to tax increases.

Waters of the US (WOTUS) – EPA renamed this rulemaking its “clean water rule” in hopes of washing away some of the public image negatives heaped on the agency effort by collective agriculture and a large contingent of general industry. This rule, set to go into effect August 28, 2015, will extend EPA and US Army Corps of Engineers’ regulatory authority under the Clean Water Act to just about any body of water in the United States – ditches, swales, farm ponds, etc. – not just the “navigable” waters under current authority.

A big bipartisan chunk of Congress, the Small Business Administration, and ag and industry critics slam WOTUS for being developed in a back room at EPA without critical consultation with agriculture, small business, and state and local governments. The agency says that is simply not so; it held over 400 outreach sessions, comment periods, and other acts of public solicitation in writing the rule.

Congress included language either barring EPA from spending federal dollars to implement the rule or flat out ordering EPA to withdraw the current rule and start anew in last December’s omnibus fiscal year 2015 spending package as well as in the pending fiscal year 2016 EPA spending bill. The House passed a free-standing bill in April telling EPA to withdraw the rule and rewrite it and a similar bill is pending in the Senate. All of this action has been ignored by EPA and Obama says if both chambers pass similar blocks on WOTUS, he will veto the bill.

Continued on page 29

Is “Good Enough” Really Good Enough? You Can Get Better!

New 24x60 Replacement

Best

Your Rebuilds

Best

- Lower Price
- Faster Turn Around
- Best Quality

Attention to your Needs

Best

Complete New and Remanufactured Machines
Replacement Rotating Assemblies

Complete Rebuilds

OEM Replacement Parts

Field Maintenance/ Safety Training

CEN-TEX
CENTRIFUGE LLC

24 HR
Troubleshoot
Hotline:
281-914-2516

“Join The Force”

16505 I-45 S. Willis, TX. 77318
Main Number 936-344-2052
www.cen-tex.net

Tallow and OSHA Focus of Midwest Renderers

“I love talking about rendered fats,” Ryan Standard, The Jacobsen, told members of the National Renderers Association’s (NRA’s) Central Region at their annual convention held in June. He then shared this Jacobsen commentary from June 9, 2005:

“After two weeks of relative quiet markets, the BFT [beef fat tallow] market did show a *bit* of life when 10 packer and 11 renderer cars traded up a half-cent at 18.5 cents, Chicago basis. The US [United States] offering prices will probably not change in the near future as the domestic markets continue with good demand and supplies do not seem to be increasing. Cattle slaughter has climbed to 650,000-plus head weekly, but does not seem to be set to go much higher.”

Standard brought his attention back to the present, reporting that currently, cattle kills are at modern lows, spot-trading is reduced significantly, and supply, not price, seems to be the most concern. Cattle slaughter in February 2015 was 2.128 million head, the lowest monthly slaughter in over 50 years. He described a 310 million pound drop in tallow production during the first quarter of 2015 compared to the same time period in 2012.

“Tallow is tight, but so are other commodities,” Standard commented. “Despite tight supplies, the variety of product is out there to keep prices down.” He added that rendered fat exports face a variety of challenges, such as cheaper palm oil, subsidized competition, a weak Australia market, and a strong US dollar. US tallow production is about four percent of total Malaysian and Indonesian palm oil production with the US biodiesel market taking a good share of the tallow that would have otherwise been exported, especially during the summer months (see chart 1 below). As for the stability of domestic biodiesel/biofuels production, Standard feels the market is headed toward greenhouse gas credits versus tax credits or mandates enjoyed in the past.

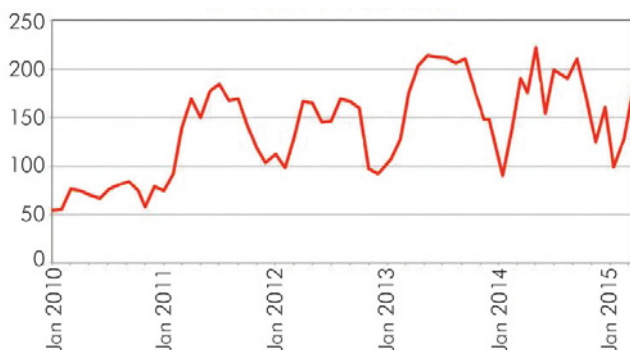
Mark Lies II, Seyfarth Shaw Attorneys LLC, highlighted what to expect from the Occupational Safety and Health Administration (OSHA) in the future. He clarified that under OSHA liability law, employers are not only responsible for their own employees but could potentially be responsible for another employer’s employee (i.e., contractors, subcontractors, consultants, temporary employees) under the “multi-employer workplace doctrine” if the employer creates the hazard, exposes an employee to the hazard, is responsible to correct the hazard, or is the controlling employer on the site.

“OSHA is looking at the workplace as a whole and so should you,” said Lies. He warned that the agency is exercising aggressive enforcement such as using interpreters who cannot interpret properly, citing employers because lock out/tag out procedure language is “too complicated” for employees, and enhancing its use of the general duty clause on combustible dust, ergonomics, new chemicals, arc flash-arc blast, workplace violence, heat illness, and a host of others.



Ben Barnard, Alloy Hardfacing, asks a question regarding OSHA regulations.

Chart 1. Animal fat usage in biodiesel production, January 2010-March 2015 (million pounds)



Source: US Energy Information Administration production estimates.



New region officers are (from left) Mike Karman, Sanimax, vice president; Ed Frakes, DarPro, president; and Jason Hartman, Mendota Agri Products, secretary/treasurer.

“Workplace violence includes bullying, and heat illness is a big deal right now with OSHA,” Lies commented. He went on to explain OSHA’s Severe Violator Enforcement Program that concentrates enforcement efforts on employers with a “demonstrated indifference” to safety, which includes willful citations, repeat citations, and failure to abate citations along with other situations such as a fatality or catastrophe. Lies called it a “black list” of employers who are guilty until proven innocent; there are currently 500 employers in the program who will remain so for three years.

OSHA is also focusing on employee literacy as inspections have found employees don’t understand the training they’ve been given, including those who speak English. Lies revealed that employers are now rewriting safety programs to a fourth-grade education comprehension and using more visual aids, such as pictograms. In conclusion, he pointed out it is more important than ever for employers to establish a strong unavoidable employee misconduct defense using these four required elements:

1. A program for the specific hazard (e.g., fall, electrical, lead, asbestos, cadmium, forklift).
2. Employee training that is documented.
3. Prior enforcement, including disciplinary records.
4. No reasonable opportunity for supervisor to identify and correct the hazard.

NRA’s Dr. Jessica Meisinger discussed the Food Safety Modernization Act that is expected to be finalized by August 30, 2015, with compliance due one year later. She explained that requirements under the act are anticipated to be very similar to what renderers are already doing under the *North American Rendering Industry Code of Practice*. Meisinger informed renderers they need to focus on their role in reducing greenhouse gases and their sustainability as these are currently market-driving key issues. Renderers also must remind meat producers that their sustainability programs should include rendering. She concluded by saying NRA is working hard at labeling the industry as no longer invisible. **R**



RENDERERS... YOU HAVE CHOICES.



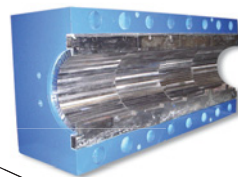
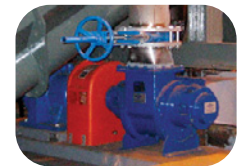
ANCO-EAGLIN is a Leading Manufacturer of Batch and Continuous Rendering Systems



- Faster Cook Times with Improved Fat Quality
- Higher Pressure Ratings for "Special Applications"
- Mechanical Seals (Various Sizes and Pressure Ranges)



- Over 3000 Units in Operation
- Built to ASME, CE or EU Specifications
- Edible S.S. and In-edible Systems
- Design, Manufacturing and Installation
- Batch and Continuous Hydrolyzers
- Biodiesel Production Equipment
- Pumping Systems (Design and Supply)



SPARE PARTS

ANCO stocks a wide array of replacement parts, as well as cooker and press replacement parts from other manufacturers. Technical assistance for any other press or cooker manufacturer is available.



ANCO-EAGLIN, Inc.

120 N. Chimney Rock Road | Greensboro, NC 27409 | Tel: 336-855-7800
Email: ancoeaglin@aol.com | www.ancoeaglin.com

Europe remains COMPLICATED

By Tina Caparella

Directives, dioxins, specified risk materials (SRMs), aquaculture, insects, and renewable energy were all topics of discussion at the European Fat Processors and Renderers Association (EFPRA) 15th Congress in Krakow, Poland, in early June. EFPRA Technical Director Dr. Martin Alm opened the two-day meeting with a look at two proposed SRM regulations. The first amends existing European Commission Regulation No. 999/2001 redefining intestines of bovine animals considered SRMs based on European Food Safety Authority opinion that will apply to all European Union (EU) member states regardless of bovine spongiform encephalopathy (BSE) risk. The second proposal amends the same regulation 999/2001 to change the SRM removal obligation for BSE negligible risk countries to the minimum (brain, skull, eyes, and spinal cord in cattle over 12 months of age) as opposed to the more involved SRM list for controlled risk countries and is based on World Organization for Animal Health, or OIE, rules.

Alm updated attendees on the continual lifting of the EU feed ban. There is hope a decision on the use of poultry processed animal proteins (PAPs) in swine feed will be made before the European Commission's summer break, with testing approval for pork PAPs for use in poultry feed expected next year. He went on to explain that the European Integrated Pollution Prevention and Control Bureau will begin updating best available technology reference documents for the slaughterhouse and animal by-products industries at the end of this year so EFPRA is conducting a survey of members. Although voluntary, Alm encouraged participation so the best data, which will be kept confidential, on current techniques for emissions (i.e., air, noise, water, waste, odor, energy, and chemicals) can be gathered and submitted.

"We must have this information," stated Alm. He then noted that data presented on dioxin testing was critical to show regulators that rendered products are not at risk for dioxin.

"And now it gets complicated," Alm said, which got a laugh from congress attendees, as he went on to discuss a product environmental footprint being evaluated by a cattle model working group that includes milk, feed, pet food, leather, and meat representatives. Alm also presented a new infographic on the EU rendering industry by numbers inspired by "our American colleagues."

Next on the agenda was Arto Rakkonen, Honkajoki Oy in Finland, who spoke about the company's electronic logistics operation service, or HELOS, which reduces trucking costs. He described the use of area collection points and logistics partners that ensures the company is getting better quality carcasses and has cut route collection time from two to five days down to just one day. In addition, the use of electronic

data transfer provides for traceability of the animal, which is required in Europe.

Dr. Ulfert Focken, Thuenen Institute of Fisheries Ecology in Germany, talked about why land animal proteins are more natural in fish nutrition than plant proteins. He explained that a fish's body temperature is controlled by its environment, creating a lower energy requirement. Typical fish feeds have a protein content of 35 to 55 percent of dry matter. Focken informed attendees that fish lack specific adaptations to anti-nutrients from terrestrial plants and feeding salmon or trout diets with a high content of soybean meal has shown to cause chronic enteritis. He concluded that animal proteins are good ingredients for fish feeds due to their valuable amino acid composition and lack of anti-nutrients compared to plant proteins.

Just before a lunch break, Dr. Ir Arnold van Huis, Wageningen University in the Netherlands, talked about deep fried locusts, fried termites, and all else insect-related as an alternative protein source not only for humans but also animal feed. He noted there are over five million species of insects, of which about 2,000 are edible, with the top species consumed by humans being the beetle followed by caterpillars. With a similar protein content as meat, insects contain amino acids and omega-3 fatty acids, are low in saturated fats and high in nutrients, and have a low impact on greenhouse gas emissions (GHGs). Huis shared research results showing the black soldier fly's high protein and fat content is suitable for livestock and fish feed, and that many companies are producing and marketing edible insects with more coming online in the next few years. He declared that insects are food and interest is growing, but admitted it will take time for some consumers to embrace this concept.

EFPRA President Niels Nielsen, Daka Denmark A/S, revealed that over 370 attendees were at this year's congress and EU renderers are looking forward to more relaxation of the feed ban perhaps in 2016 and 2017. Currently in the EU, category 1 rendered material, which is at the highest risk for transmissible spongiform encephalopathy, is used for combustion while category 2 material, also at high risk but not containing specified risk materials, is used for fertilizer. Under Europe's Renewable Energy Directive (RED), double counting toward biofuels targets is only allowed for category 1 and 2 animal fats and not category 3, which is from animals fit for human consumption, due to other outlets for this material such as feed, although this market is declining. EFPRA is challenging the European Commission on some issues in an effort to create a level playing field with other proteins and fats.

"We do not understand why the commission is so reluctant when it comes to opening up the market for ruminant PAPs

for pet food in countries outside the EU,” Nielsen commented. “Ruminant PAP or mixed proteins containing ruminant PAP is allowed in pet food production within the EU, but it’s still forbidden to export the same product for the same production outside Europe. The argument from the commission is that they are concerned this issue could disrupt the negotiation with member states in regard to relaxation of the feed ban for non-ruminant PAP in diets for poultry and pigs.

“We produce safe products, but we want a level playing field and, in principle, to follow OIE rules,” he added. Nielsen gave as an example the EU feed ban. OIE recommends not feeding ruminant proteins to ruminants, which is the rule in most countries outside the EU, but beef imported into Europe could have been fed animal proteins, even of ruminant origin. He noted that this is not a problem, provided those proteins are produced safely, but it creates unfair competition for EU renderers.

“Our rules within the EU, no doubt, are the most severe and stringent in the world,” Nielsen concluded.

Kjeld Johannesen, chief executive officer of Danish Crown, Europe’s largest producer of pork, spoke about the challenges of the pig and cattle markets and the company’s increasing focus on animal by-products with the formation of DC Ingredients. Danish Crown has 21 slaughterhouses and one hide plant in five European countries – Denmark, Germany, Poland, Sweden, and the United Kingdom. Russia’s import of pork, especially from Europe, has dropped significantly, from nearly 1.2 million metric tons in 2012 to a flat-out ban of EU pork in 2014 due to African swine fever in the eastern part of Europe. In all, Russia only imported 400,000 metric tons of pork in 2014, mostly from Brazil and Canada. Danish Crown is increasing its attention on meat exports to Africa and the continued expansion in China.

Johannesen touched on the global meat industry restructuring the market with cross-seas acquisitions and mergers. The main message from this activity: consolidation will not go away.

“We cannot fight it, so we must be a part of it, and that’s what Danish Crown plans for the future,” he remarked.

Andreas Pilzecker, European Commission Directorate-General for Energy, shared the various policies in place to meet the commission’s target of reducing GHGs from EU transportation fuels six percent by 2020. The RED specifies 10 percent of transport fuels should contain advanced biofuels by that date, with no more than seven percent coming from first-generation biofuels, which are produced using food- and feed-based crops. Biofuels must save at least 35 percent in GHGs compared to fossil fuels, increasing to 50 percent in 2017. Pilzecker said that used cooking oil and tallow methyl esters are not included in the directive’s definition of advanced biofuel, which he noted is not yet commercially available. A complex and confusing discussion followed where it was reiterated that category 1 and 2 fats can be double counted but not category 3 fats.

Pilzecker explained that the commission’s opinion is no investment aid should be provided for food-based biofuels, but financial assistance should be allowed for converting food-based biofuel facilities into advanced biofuel plants. He went



Kjeld Johannesen, Danish Crown, discusses the company’s increasing focus on animal by-products.



Bernhard Klasine (*left*), HF Press, listens to Ashraf El Sharkawy, Proteina Inc., explain the challenges his company faces in Egypt while Jaser Yasien, Proteina, listens.



Ivica Grlic Radman, Agroproteinka d.d. in Croatia, looks over a new infographic on EU rendering statistics. The information is available on page 14.

Continued on page 13

European Production Stays Stable

The European Fat Processors and Renderers Association (EFPRA) presented its annual statistics of Europe's animal by-products industry at its congress held in Krakow, Poland.

Beef consumption in the 28 member countries of the European Union (EU) continued to drop in 2014, albeit slightly, due to competing meats, especially poultry, while exports and imports remained stable. EU beef production was just above 7.5 million metric tons (MMT), down from a high of 8.4 MMT in 2007, with consumption at about 7.6 MMT, down from 8.7 MMT seven years prior.

Rising exports drove the EU pork market in 2014 as there has been no expansion in domestic consumption, with production remaining stable at just over 22.0 MMT. Poultry slaughter and consumption in 2014 continued steady growth at about 13.0 MMT and 12.5 MMT, respectively. World demand for poultry is growing, supporting EU exports. EFPRA Secretary General Dirk Dobbelaere noted that Poland is now the top EU poultry producer, a position once held by France.

EFPRA represents 35 members in 26 European countries that reported processing about 17.2 MMT of raw material in 2014, similar to 2013, into 2.7 MMT of animal fat and 3.9 MMT of animal proteins, compared to 2.5 MMT of animal fat and 4.1 MMT of animal proteins reported in 2013. Germany continued to process the most raw materials in 2014, nearly 3.0 MMT, followed by France at 2.8 MMT, Spain at about 2.2 MMT (up from 1.9 MMT in 2013), the United Kingdom at 1.8 MMT (down from 2.1 MMT the previous year), and Italy at 1.4 MMT.

Total category 3 material processed in 2014, which is from animals fit for human consumption, was about 12.0 MMT, up from 11.0 MMT in 2013, while all other material accounted for nearly 5.2 MMT, a drop from 6.0 MMT the previous year.

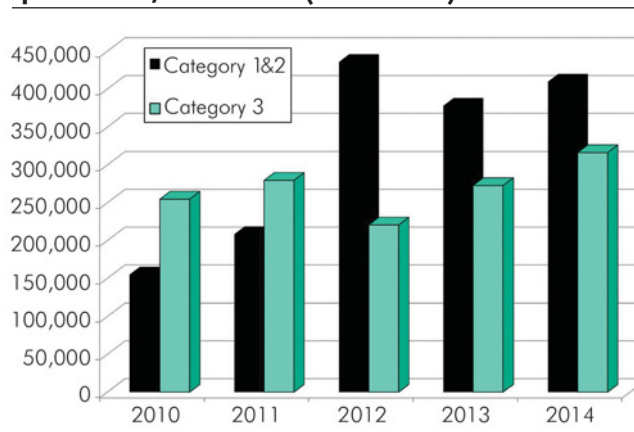
Total category 1 material processed in 2014, which is at the highest risk for transmissible spongiform encephalopathy, was 4.5 MMT, with total category 2 material collected, also at high risk but not containing specified risk materials, was 720,000 MT. Most all of category 1 meat and bone meal (1.05 MMT) and 160,000 MT of fat was used for combustion, with 350,000 MT of category 1 fat used in biodiesel last year, about the same as 2013 but down from 400,000 MT in 2012. Most category 2 meat and bone meal (175,000 MT) was used as fertilizer with a small amount (9,000 MT) going to feed for fur animals. Category 2 fat was mainly used in biodiesel (about 40,000 MT) and oleochemicals (around 7,500 MT).

While category 1 and 2 fat continues to see growth for use in biodiesel production due to their eligibility for double counting toward targets under the EU Renewable Energy

Directive, more and more category 3 fat is being used in biodiesel because of a Russian embargo and remaining concern by EU countries to use this product in compound feed (see chart 1). However, category 3 fat does not qualify for double counting. Edible and category 3 fats are primarily used in terrestrial animal feed, followed by oleochemicals, biodiesel, and pet food.

Dobbelaere showed a considerable increase in food-grade tallow production in 2014 over the previous year with no real explanation, except perhaps it was released from storage. In 2014, 260,000 MT of tallow was reportedly produced, up from 120,000 MT in 2013 and the highest since 2011 when 200,000 MT was reported. Food-grade lard production dropped slightly last year to about 140,000 MT after a reported 150,000 MT in 2013.

Chart 1. Animal fat usage in EU biodiesel production, 2010-2014 (metric tons)



Of the 2.5 MMT of category 3 processed animal proteins (PAPs) produced in 2014, 1.6 MMT was used in pet food with around 60 percent (950,000 MT) coming from multi-species. However, this market took a lot less multi-species PAP than the 1.6 MMT used in 2012, turning instead to poultry meal, which increased from 200,000 MT in 2012 to about 380,000 in 2014. Fertilizers took 825,000 MT of PAPs last year, up from 2013, with about 550,000 MT coming from multi-species, substantially more than the

420,000 MT and 400,000 MT used in 2013 and 2012, respectively.

"Fertilizer is a very good market," Dobbelaere stated, then pointed out that aquaculture is continuing to develop since the European Commission began allowing swine and poultry PAPs in fish feed in June 2013. In 2014, 98,600 MT of PAPs was used in fish feed, up slightly from 74,600 MT the previous year, with a big shift toward poultry meal, from 11,000 MT in 2013 to over 33,000 MT last year. Feather and blood meal use showed modest declines, while pig meal bumped up slightly.

"These numbers probably include exports as EU aquaculture is still reluctant to use our products," Dobbelaere remarked, yet he foresees this market continuing to increase in the future.

In conclusion, the big markets for EU food- and feed-grade PAPs last year remained fertilizer (up 13 percent) and pet food (albeit down 4 percent). Although the food and fur animal markets saw declines, aquaculture was up 21 percent. For food- and feed-grade fats, the feed market remained stable, oleochemicals were up 24 percent, biodiesel increased 16 percent, and pet food rose 4 percent. Smaller markets for these fats mostly saw increases: food up 40 percent, aquaculture up 17 percent, and fur animal feed remained stable. **R**

on to say the commission has indicated it will not establish new targets for renewable energy or the greenhouse gas intensity of fuels used in the transport sector or any other subsector after 2020, and that food-based biofuels should not receive public support after that time as well.

“The focus of policy development should be on second- and third-generation biofuels and other alternative, sustainable

fuels,” Pilzecker stated. “The Roadmap for the Energy Union states that the commission will come forward with a renewable energy package setting out a comprehensive policy – including biofuels – for the period after 2020.” It was then mentioned that Germany excludes animal fat-based biodiesel from meeting RED targets; the directive allows each member state to decide how it will meet those targets.

EFPPRA’s next congress will be held June 1-4, 2016, in Messinia, Greece. **R**



Rendering in Poland

As the top poultry producer in Europe, Poland’s rendering industry remains vital to the health and well-being of the country’s livestock industry. Dr. Jerzy Dowgiallo, Ministry of Agriculture and Rural Development in the Department of Food Safety and Veterinary, explained the sanitary and environmental role rendering plays in Poland at the European Fat Processors and Renderers Association 15th Congress in Krakow, Poland, in early June. Poland’s government provides financial assistance to farmers for the collection, transport, processing, and disposal of fallen livestock, of which 1.3 million animals were collected in 2014 and processed into primarily category 1 material that is used in incineration and combustion equipment to create energy. Dowgiallo said that when this product is used as a fuel, it provides renewable energy with a zero balance of carbon dioxide. Any category 1 material containing animals with a transmissible spongiform encephalopathy is buried or landfilled.

Polish renderers also collected 917,700 metric tons (MT) of raw material from animals fit for human consumption, labeled category 3, in 2014, processing it into 219,400 MT of animal proteins and 129,000 MT of fat. Some of this material is also used for combustion and incineration but is mostly utilized in pet food and animal feed.

In 2002-2003, nearly 80 million euros (about the same in United States dollars at the time) was spent modernizing the country’s rendering industry to comply with European Commission regulations prior to Poland joining the European Union. Many rendering plants have now combined technologies with incineration/combustion equipment to create energy for the plant itself or to sell to external users thus creating fewer emissions than from fossil fuels. Today, only about 60 percent of current rendering capacity is utilized, creating a buffer if one plant should suspend operations or in case of increased animal mortality due to infectious disease control. When asked how the Polish government was handling 5,800 pigs that tested positive for African swine fever in the eastern part of the country, Dowgiallo clarified that the government’s opinion is that rendering under control of the proper authorities is the preferred method of disposal, but

in this case, the animals would be buried due to logistics and the small number.

Ryszard Burzynski of Poland’s rendering industry association reported that total animal by-products processed grew an average of 17 percent in 2014 over 2013, largely due to the growing poultry industry. Total category 1 by-products processed rose 24 percent to nearly 272,500 MT, translating into 67,000 MT of proteins and 18,150 MT of fat. Category 3 material processed also saw a 24 percent increase to 917,700 MT, with proteins up 22 percent to 219,400 MT and fat seeing a 5 percent bump to 123,050 MT. Burzyrski attributed the surge in material collection to farmers being made more aware of their obligations under European Union and domestic regulations. On the flip side, category 2 material collected continued a downward trend, with 68,050 MT processed in 2014 compared to 380,500 MT in 2007.

Poland’s animal proteins were used in a variety of products, with 122,760 MT being exported equally between EU and non-EU countries, 102,200 MT going to pet food, 6,900 MT taken by the fur industry, about 1,300 MT incinerated, and 1,000 MT being used as fertilizer/soil amendments. As for fats, 68,500 MT was used in animal feed, 32,150 MT went for technical uses, 18,800 MT was incinerated, and 9,700 MT was used for biodiesel. In addition, fur animals consumed 36,000 metric tons of by-products as feed. Although Poland has 110 total processing lines, 18 plants process 92 percent of the animal by-products in the country.

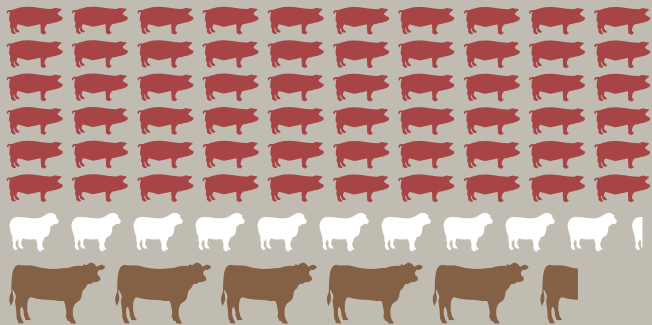
Burzyrski presented three obstacles facing the Polish rendering industry:

1. Incorrect and misrepresented statistical data collected and reported by three different government institutions can vary by as much as 25 percent.
2. It takes many hours each day to study all the regulations renderers are required to comply with.
3. A continual increase in bureaucracy, government personnel, and inspections of rendering operations in Poland since 2004. In 2004, veterinary inspection employed 4,572 and performed 1,433 inspections. Ten years later, 5,901 persons were employed who conducted 7,885 inspections, translating to an employment increase of 29 percent while inspections increased 5.5 times. **R**

RENDERING IN NUMBERS

EUROPEAN RENDERERS TURN BY-PRODUCTS FROM THE MEAT AND DAIRY INDUSTRY INTO SAFE MATERIALS THAT CAN BE REUSED

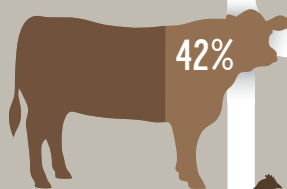
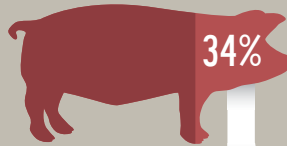
328 MILLION Pigs, sheep, goats, beef and dairy cattle are slaughtered in the EU each year



6 BILLION Chickens, turkeys and other poultry are slaughtered in the EU each year as part of meat and egg production



PROPORTION OF THE ANIMAL RENDERED



A proportion of each animal is not used for human consumption and is rendered to make it safe

2.45 MILLION TONNES OF FALLEN STOCK IS COLLECTED ANNUALLY

Fallen stock is taken from farms within 24 hours to protect human and animal health

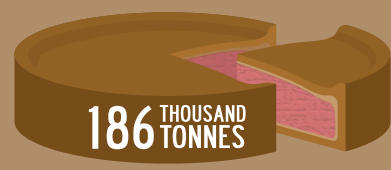


MATERIALS PROCESSED ANNUALLY

LOW RISK
12 MILLION TONNES
Fit for human consumption at point of slaughter

HIGH RISK
5 MILLION TONNES

EDIBLE FATS



Used as shortening in baked goods such as croissants and pastry, they are also excellent frying agents and are used in various types of spread

PET FOOD

Processed animal protein replaces imported soya meal and has a lower carbon footprint

10% of the greenhouse gas emissions of soya meal

1.67 MILLION TONNES

OLEOCHEMICALS

575 THOUSAND TONNES of Category 3 rendered fat is used by the chemical industry to make a range of products – as a palm oil substitute



10% of the greenhouse gas emissions of palm oil

ANIMAL FEED & PET FOOD

950 THOUSAND TONNES

Category 3 rendered fat used annually instead of palm oil

FISH FEED

99 THOUSAND TONNES of processed animal protein is used for feed on fish farms; this replaces feed made from caught wild fish



FIT FOR HUMAN CONSUMPTION

LOW RISK

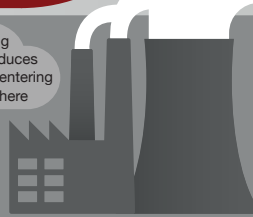
HIGH RISK

SOLID FUEL

1 MILLION TONNES

Meat and bone meal replaces coal as fuel in power stations and cement kilns each year

Replacing fossil coal reduces additional CO₂ entering the atmosphere



LIQUID FUEL

Enough biodiesel is produced from rendered fat each year to power **650 THOUSAND CARS**



15% of the greenhouse gas emissions of fossil diesel

FERTILISER

Animal by-products annually provide:

ENOUGH PHOSPHORUS TO FERTILISE ARABLE LAND THE SIZE OF **3 MILLION FOOTBALL PITCHES**

ENOUGH NITROGEN TO FERTILISE ARABLE LAND THE SIZE OF **500 THOUSAND FOOTBALL PITCHES**

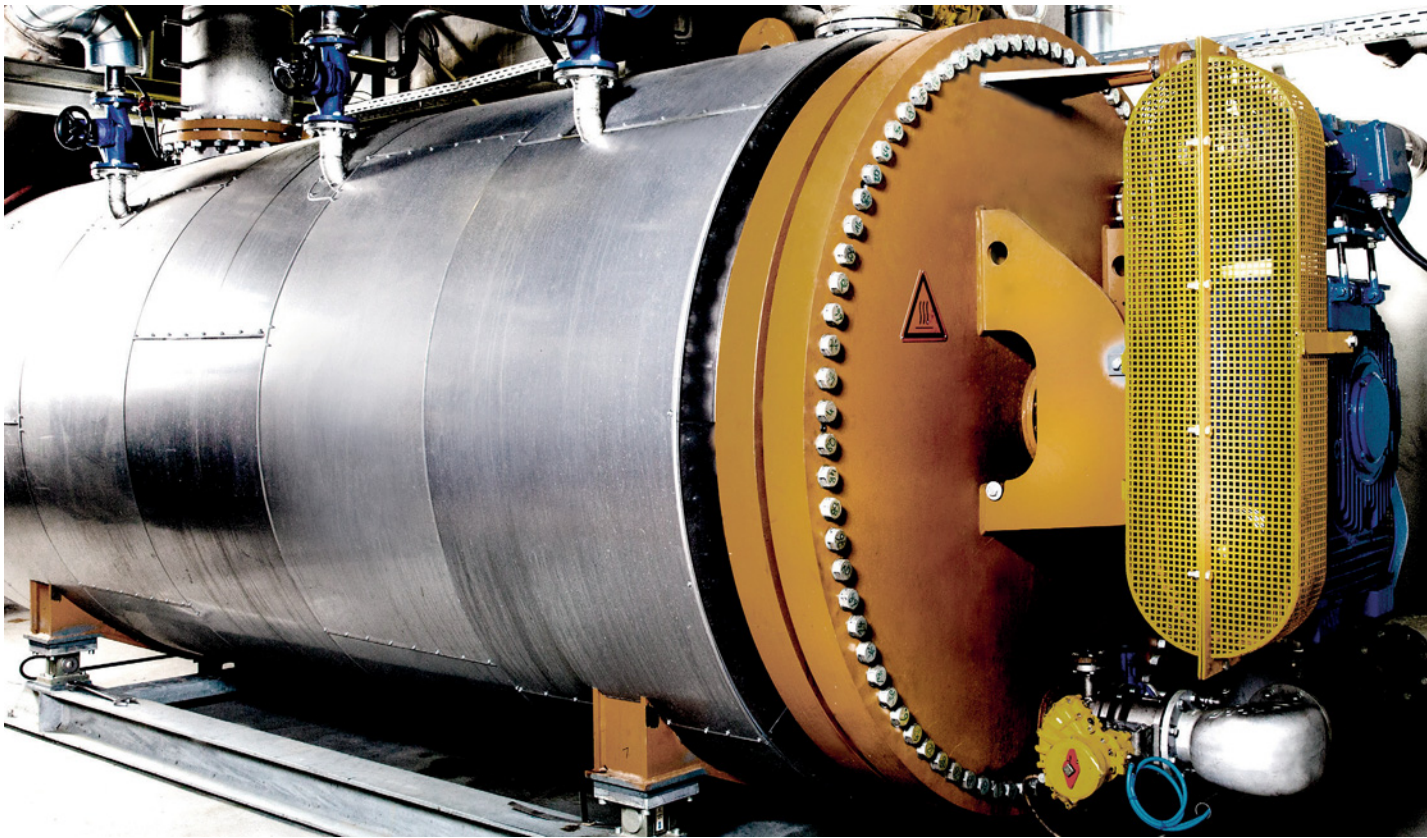


160

years of expertise & passion

German engineering Anti-wear technology Customized design

Engineering
Oilseed preparation
Pressing plants
Refining plants
Rendering technology
Spare parts & service



Press+LipidTech

*Performance. Passion. Partnership.
Innovative Engineering since 1855.*



Australian Renderers Vow to Innovate

By Tina Caparella

“Innovation is not a single event, it’s a process,” Tim Juzefowicz, technical director of the Australian Renderers Association (ARA), declared at the group’s 13th International Symposium held in late July in Brisbane, Queensland. Over four days, attendees not only heard about innovation in the industry, but also trends in meat production and pet food, challenges in tallow markets, and various operational advances.

The first day was dedicated to advancements in rendering operations and processes. Elizabeth Owens, Symbio Alliance, explained testing terminology for tallow and animal proteins, encouraging renderers to take multiple samples from a finished product at various locations of the load. She noted the importance of not setting standards that can’t be maintained and having a clear understanding of the expected test result and the action needed in the event a result is outside the acceptable range.

Dr. Ken Bruerton, Protea Park Nutrition Services, examined the effects of processing conditions on finished products, stating that heat treatment reduces bioavailability of amino acids in meat and bone meals. He reported that although difficult to quantify, it is likely that tallow produced at lower temperatures will be subject to less oxidative damage and be more suitable for use in animal feeds.

Shane Leath, AgResearch Ltd. and a member of the World Renderers Organization scientific advisory council, said innovation is a competitive advantage at both the company and industry level. For innovation to occur, learning is expected so engage with equipment operators, research institutes, and other industries.

Several manufacturers provided their experience with innovation. Sverre Golten, A&S Thai, believes that although the rendering industry is not yet ready, vacuum drying is coming. However, Henning Haugaard, Haarslev Industries, provided examples of low-temperature rendering plants currently operating under vacuum drying that are producing a sought-after product. He also shared more radical installations, such as a belt dryer in a rendering operation and a feather meal line in Belgium. Derek Henderson, Keith Engineering, explained that rendering plants in the 1950s and today consist of the same components, but what’s inside has changed. He highlighted wave disc technology as one such example of innovation that is currently in production at a low-temperature facility and so far proving successful.

Bill Spooncer, Kurrajong Meat Technology, voiced his concern about vacuum drying, which he noted is not new in rendering, and low temperature processing, insisting a sterilization step is necessary. Golten reported that their process has a sterilization step before vacuuming and recommended that sterilization take place before drying, when the material is still wet.

Mike Johns, Johns Environmental, addressed microfiltration of rendering effluent using membranes, focusing on a project done at Talloman’s rendering facility in Western Australia. He noted that membranes are being used more often in anaerobic digesters and modern membrane technologies have approaches for handling fouling. Erika Weltzien, Fats and Proteins Research Foundation (FPRF) in the United States, shared the preliminary results of a microfiltration research project at Clemson University demonstrating that ultrafiltration membranes can treat rendering wastewater without the polymeric and pH-adjusting additives required for dissolved air flotation (DAF). She made a second presentation the following day showcasing FPRF projects and a white paper currently being developed comparing the safety and sustainability of various methods used to process meat by-products.

Ben Baron, Talloman, highlighted the plant’s new DAF project that is saving the company about \$1 million a year in municipal fees. Mark Henderson, Hydrochem, and Adriaan van der Beek, FRC Systems, explained both companies’ roles in the project that has resulted in the renderer being able to recapture tallow from wastewater and sell it as a low-grade product. Justin Caldwell, Oakey Beef Exports, described how the company’s processing of 1,300 head of cattle per day was overloading its ponds. After some analysis, Oakey installed a new age biogas and wastewater treatment facility—a covered high-rate anaerobic lagoon system that is working very well.

Kevin Baker, Magnattack Global, discussed how the company, which predominantly has worked in the food industry, became involved in rendering after receiving a call looking for assistance in removing wire contaminants in finished product. Following years of research and development, Magnattack developed a self-cleaning magnetic system that has since been endorsed by HACCP International. The company is currently in discussions with some plastic manufacturers for the production of metal detachable ear tags.

Philip Kent, ADT Rendering, talked about the use of solar heat for drying in a new ultra low-temperature rendering process originally designed for mobile processing. It works along the same lines as a low-temperature system except that the inlet air for the rotary dryer is drawn from a solar heat collector with a modulating gas burner positioned in the

intake manifold to the dryer. Energy efficiencies so far are on the low end, ranging from 3.29 to 3.35 gigajoules of energy per ton of water evaporated.

"The process is amazingly simple, and there's no capital involved," Kent explained.

ARA President Warren McLean, MBL Proteins, declared that the world will never need less protein and energy (in the form of fats and oils for human and animal needs) than it does today.

"And that gives me great confidence in the future of our industry," he stated before sharing some of the challenges and successes the Australian industry has experienced in the past two years:

- The gutter grease issue in Taiwan that took a lot of time and resources to deal with, including an Australia-hosted informational workshop in Taiwan followed by a delegation visit to Australia to verify systems.
- Continual work with China on lifting bans on poultry products resulting from past avian influenza (AI) outbreaks despite Australia being AI free for over a year.
- The successful opening of the Indonesia market in May for rendered poultry meals.
- China's requirement for Australian rendering plants to be audited by its Administration of Quality Supervision, Inspection, and Quarantine has resulted in only 11 plants being audited since 2012 with no indication when more might be examined.
- The Japanese pet food ingredient market opening in 2014, but with ongoing DNA issues to be resolved.

Presenting the symposium's keynote address from a customer's point of view was John Brennan, Animal Nutrition Association of Canada and Nutreco Canada Inc., who asked if we, as companies and associations, are ready to double the food production needed in the next 35 years. He highlighted one way feed producers and renderers can communicate their role in the human food chain to consumers is by using friendlier, human-interest images, such as trees and green fields like the biofuels industry uses. Brennan discussed the challenges of and lessons learned from the porcine epidemic diarrhea virus (PEDv) situation that significantly affected the

United States and, to a lesser extent, Canadian pork industries in 2014. He shared the results of an FPRF research project that showed rendering and hydrolysis as negligible risks of PEDv transmission while spray drying is a negligible to low risk.

"Industry is science-based and needs to be, yet if PEDv has taught us anything it's that we need to understand human emotion better in our management decisions," Brennan commented. He went on to discuss animal nutrition, stating that vegetable diets lead to wet litter in poultry, poor palatability and digestibility in young animals, and are not suitable for poultry and pigs as they are omnivores. Brennan concluded by predicting the next 35 years will bring more microbiological challenges than in the past 35 years so feed producers and renderers need to invest in capabilities, understand customer and consumer decision-making, and form strong industry alliances.

Julie Seddon, Inghams Enterprises, warned that if global business continues as usual, there will be a 55 percent increase in water demand with a 40 percent shortfall by 2030. She shared Inghams' experience of rebuilding after a devastating 2010 fire burned a Somerville, Victoria, facility to the ground. The rebuild was completed in a record nine months, half the time it should have taken, and provided Inghams' the opportunity to use more efficient processes and address increasingly important nitrogen issues by constructing an advanced water treatment plant that cleans water quite significantly for reuse.

John Donicht, The Jacobsen in the United States, presented data showing Australia as the number one tallow exporter in the world in 2014, followed closely by the United States, which had always previously held the top spot. He noted that global tallow exports to China declined 68 percent from 2008 to 2013, but rose 33 percent in 2014. Donicht explained that California's low carbon fuel standard will be a big deal for renderers, providing a growing market for used cooking oil and animal fats, both of which rate low in carbon intensity. The standard requires a 10 percent reduction of carbon in California transportation fuels by 2020.

The World of Meat Production and Tallow

A session focusing on current and emerging trends in meat production began with Andrew Spencer, Australian Pork Ltd., reporting that the industry processes some 4.9 million pigs each year. There are two segments for pork in the Australian market, the largest being processed meats comprised mainly of ham and bacon, of which 70 percent is produced from imported pork. The second segment is fresh pork produced from domestically raised pigs due to quarantine controls. Nearly 150,000 metric tons of pork is imported into Australia, mainly from Europe and North America, more than double what was imported 10 years earlier. To be competitive in selling its product, the country's pork industry is working on three differentiators, including quality, production systems and ethics, and product integrity. Currently, more than 68 percent of pig farms operate under a gestation stall-free definition, and a new traceability program tracks the movement of pigs in Australia in an effort to manage any emerging diseases that could arrive.

Continued on page 18



From left, Rob Jones, West Coast Reduction Ltd. in Canada, answers a question about tallow markets on a panel with Tom Coughlan, Wilmar Gaviola, and Damian Evans, Colyer Fehr Tallow Pty Ltd.

Dr. Vivien Kite, Australian Chicken Meat Federation, explained that global poultry production grew an average 3.8 percent per year over the last 10 years while all meat production grew by just 2.0 percent over the same time. The outlook for global poultry production is very strong due to low feed prices and high beef prices. However, AI could “spoil the party,” as Kite described it. Australia’s poultry industry has grown steadily over the past 50 years and is forecasted to continue that growth over the next five years.

Jed Matz, Cattle Council of Australia, reiterated that cattle prices are high, but slaughter, production, and exports of both beef and live animals are all down. The country is experiencing its lowest cattle herd in 20 years – 28 million head in 2014 – and exports about 75 percent of production, around 1.5 million metric tons, mostly as hamburger for fast food to the United States (36 percent of exports), Japan (23 percent), Korea (12 percent), and China (9 percent).

Tom Coughlan, Wilmar Gavilon, reported that Australia is the world’s seventh largest beef producer and the third largest exporter due to its close proximity to markets and low disease status. He noted that China is a huge market opportunity for Australian cattle and rendered fats, but processors and renderers need to be patient and work to keep costs down. Australian beef processing costs are twice that of the United States and triple the costs in Brazil.

James Rose, Skretting Australia, focused on aquaculture, which is the fastest growing animal protein segment. Sustainability is becoming very important to aquaculture, and while Australia’s seafood industry is small compared to other protein markets, salmon is a \$500 million industry targeted to double by 2050. Rose is seeing a reduction in fish meal use in salmon feed and more land animal proteins being used. The challenge will be to find omega-3 sources to replace fish meal in aquaculture diets, with both vegetable and land animal proteins being extremely important in fish feed in the future. Rose has seen better consistency in rendered products over the years, but said there is still room for improvement. He recommended coming up with a global rendering standard for sustainability.



Geoff Clatworthy, Inghams Enterprises, queries a speaker about wastewater treatment.



Adrian Steele (*right*), Meateng Pty Ltd., asks Dennis Hey about Conveyor Industries’ equipment at the symposium’s trade exhibit.

Continuing the discussion on aquaculture was Dr. Richard Smullen, Ridley AgriProducts, who stated that globally, farmed fish consumption has overtaken beef. India is a rapidly growing area for aquaculture as is Southeast Asia and China. He noted that all nutrition is governed by the law of physics, there are no magic ingredients, and animals need nutrients, not raw materials.

Michelle Lang, Nestle Purina Pet Care and Pet Food Industry Association of Australia, shared the consumer-driven trends in pet food, which includes a willingness to pay more for a pet’s food. Pet owners are more connected to their animals than ever before and are more aware of product quality, visual appearance, packing, and pet acceptance. Currently, the biggest pet food export market for Australia is Japan at 37 percent, followed by New Zealand at 26 percent. Lang noted there are opportunities for animal by-products in pet food, but renderers need to focus on reducing contamination, especially of plastic and metal.

A session on tallow markets drew a large audience and began with Rob Jones, West Coast Reduction Ltd., presenting the situation in Canada where there are three major independent renderers and two large packer-renderers. The majority of beef (80 percent) is produced in western Canada, while the bulk of pork is processed in eastern Canada, so tallow mostly originates on the west coast headed for markets in Japan, Korea, Singapore, Central America, and Mexico. Jones showed that in 2002, Canada shipped over 80,000 metric tons of tallow to China, but the market has been closed since 2003 after bovine spongiform encephalopathy (BSE) was discovered in Canada. He confirmed that only 18,000 metric tons of used cooking oil is processed annually in western Canada and that of the 12 biomass-based facilities in the country, only three are operational. About 95 percent of the biodiesel produced in Canada is shipped to the United States as Canada primarily uses renewable diesel produced by Neste in Singapore.

Scott Amedee, Graincorp Oils, shared some of the challenges of the global oils market where price volatility occurs monthly. Currently there is no biodiesel mandate in Australia and the palm industry has spent a lot of money to open new markets, forcing the closure of traditional tallow

Continued on page 25



Haarslev Industries

After-Sales and Service

With five locations and service trucks in North America Haarslev can assure our customers maximum protection against downtime, optimum equipment performance, large inventories with original OEM high quality metal wear parts and in-house rebuilds of pre-breakers and presses.



Haarslev Inc.

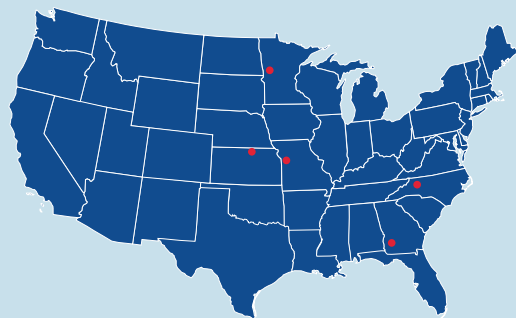
9700 NW Conant Avenue, Kansas City, MO 64153

Tel. (816) 799-0808 • Fax (816) 799-0812

E-mail: info-usa@haarslev.com • Web: www.haarslev.com

Greensboro, NC • Belleville, KS

Perham, MN • Shellman, GA



Renderers Venture to Capitol Hill

The National Renderers Association’s (NRA’s) 15th Annual Washington Fly-in in mid-June could not have happened at a better time. The “slow start” United States (US) Congress was starting to turn around and buckle down to the job of passing legislation. This year, NRA intentionally focused on items on Congress’ plate as well as other issues important to renderers but not yet slated for action. By talking about “top of mind” problems for Congress, renderers gained more attention and answers.

Each June, NRA invites its members to Washington, DC, for in-depth briefings on major rendering topics and meetings with their members of Congress. Over two and half days, NRA’s fly-in featured an industry issues briefing and update, a insider’s breakfast with a congressional speaker, and Capitol Hill meetings.

Renderers came from across the country to speak up and be heard. Rendering operations are located in many congressional districts from north to south and east to west, which provides valuable grassroots connections (see chart 1 below). Fly-in participants fanned out across Capitol Hill and held 230 meetings with their senators and representatives to educate them about their industry and its important role in agriculture as well as industrial and consumer products.

Why take time away from running a business and being with family to come to Washington, DC, for the fly-in? “If you’re not at the table, you’re on the menu,” NRA’s Legislative Action Committee Chairman Dave Kaluzny, Kaluzny Bros., always says. Decisions are being made in Washington, DC, that affect the rendering industry and we cannot let others drive our future. Being there in person sends the powerful message that renderers are engaged.

“It’s great to meet our members of Congress year after year,” said Walt Gurschick, general manager of Baker Commodities Inc.’s Billerica Division. “They remember you, give you their undivided attention, and take a real interest



Joe Jacobson (*left*), assistant division general manager, Baker Commodities Inc.-Spokane Division, meets with Representative Cathy McMorris-Rodgers (R-WA). She serves in the House of Representatives’ leadership as Republican conference chair and as a member of the Energy and Commerce Committee.

in your business. The members and staffers recalled issues from the previous year’s visit, such as grease theft and the biodiesel tax credit. They showed interest in learning about our industry and this year’s concerns. EPA’s [Environmental Protection Agency’s] proposed waters of the US regulation was a hot topic along with biodiesel tax credits and recycling in general.”

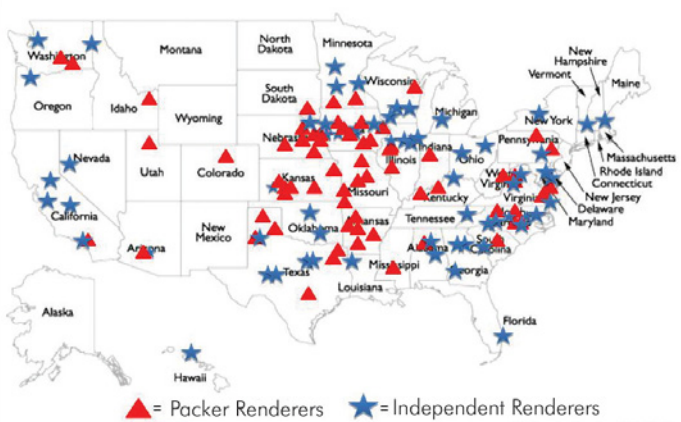
Before members of Congress can really “get” the industry’s issues, they need to understand what rendering is and its contributions. Fly-in participants used a new “10 Facts about Rendering” handout to lay this groundwork. Next, each company selected two or three topics from this year’s NRA “Issue Briefs” list to discuss with their legislators.

At the NRA spring meeting in April, the Legislative Action Committee identified important issues to discuss at this year’s fly-in. As a result, the “Issue Briefs” focused on the importance of funding the US Department of Agriculture’s (USDA’s) Market Access and Foreign Market Development programs, biofuels, EPA’s proposed waters of the US and ozone rules, the need to increase truck weights, international trade agreements, rendering’s priority role in food waste disposal, sustainability, and the industry’s contribution to greenhouse gas reduction. NRA’s “10 Facts about Rendering” and its 2015 “Issue Briefs” can be found at www.nationalrenderers.org.

“In the 15 years I’ve been coming to the fly-in, it’s been about building relationships with those still in office and our new members of Congress,” said Ken Gilmurray, JBS. “It’s important to influence proposed regulations and legislation to allow us to comply and still thrive.”

NRA’s industry issues briefing this year was hosted at the American Farm Bureau Federation (AFBF) headquarters and provided information renderers could use immediately

Chart 1. Location of rendering plants in the United States



in their businesses. It also provided a glimpse into important issues for meat producer customers. USDA's chief economist Dr. Bob Johansson provided an agricultural forecast, including the outlook for this year's row crop, livestock, and poultry production. Turning to the United States and global economy, the U.S. Chamber of Commerce's chief economist Marty Regalia delivered dynamic, edge-of-your seat predictions dependent upon future decisions made by world government and other market fundamentals.

Since animal diseases, notably porcine epidemic diarrhea virus and highly pathogenic avian influenza, are critical to renderers, Dr. Mark Davidson, USDA's Animal and Plant Health Inspection Service (APHIS), spoke about the department's role in managing these threats. Dale Moore, AFBF executive director for public policy, discussed livestock and poultry farmer priorities, ranging from country of origin labeling to genetically modified organisms, disease outbreaks, and exports.

NRA's Capitol Hill insider breakfast featured Sara Bittleman, legislative director and chief counsel for energy, natural resources, and agriculture for Senate Finance Committee Chairman Ron Wyden (D-OR). NRA has worked with Bittleman over the years as she has held increasing senior positions within USDA and EPA. As a result, she understands the importance of rendering and provided the latest information on what was happening on Capitol Hill as well as effective advocacy tips.

"We have several new members in the Alabama

congressional delegation, so it was important for BHT ReSources to attend this year's fly-in to introduce them to the rendering industry and our company," said Micah Salsman, the company's general counsel. "Through showing support for NRA, members of Congress know the organization speaks for our interests."

Coming to her first fly-in was Bev Norris, general manager for Baker Commodities' Phoenix Division. "I enjoyed meeting with my representatives and the staff of my senators to discuss issues that are important to Baker Commodities as a

business and for rendering as an industry. Visiting Washington, DC, and participating in the process reminds me what a great country we live in."

Companies represented at this year's fly-in were American Proteins Inc., Baker Commodities, BHT ReSources, Darling Ingredients Inc., Farmer's Union Industries LLC/Central Bi-Products, JBS, Kaluzny Bros., Mahoney Environmental, Mendota Agri-Products, National Beef Packing Company Inc., Sanimax, Tyson Foods Inc., and Valley Proteins Inc. Washington, DC-based lobbyists for Tyson and National Beef also attended. Washington reps are welcome to attend each year.

Be sure to mark your calendar for next year's fly-in June 13-15, 2016. The meeting will be back at the Washington Court Hotel on Capitol Hill. Since 2016 is a major election year, there will be important challenges and possible changes ahead. It will be a good year to attend the fly-in. **R**

**NRA's annual convention is
October 19-23, in Laguna Niguel, CA
www.nationalrenderers.org**

The Gold Standard in Antioxidants from Novus

Novus's SANTOQUIN® sets the standard for antioxidants with more than 50 years of successful use in the rendering industry. Now you can also choose either SANTOQUIN® Q4T or SANTOQUIN® Plus for your antioxidant needs.

SANTOQUIN-Q4T

- Application in vegetable oils, yellow grease and animal vegetable blends to maximize your protection in vegetable matrices

SANTOQUIN® PLUS

- Application in rendered/blended product to maximize FDA approved levels of Ethoxyquin and BHT in fats and oils

Your Ally in Rendering

Novus stands with the rendering industry in defending the safe, proper, and effective use of antioxidants



For more information on Novus and our Antioxidant portfolio, please contact your Novus sales representative or e-mail contact.usa@novusint.com

© NOVUS and SANTOQUIN are trademarks of Novus International, Inc., and are registered in the United States and other countries.
© 2015 Novus International, Inc. All rights reserved.
329



Industry Responds to EPA Proposed RFS Volumes

In late May, the United States Environmental Protection Agency (EPA) released proposed volume obligations under the Renewable Fuel Standard (RFS) program for 2014, 2015, and 2016, and volume requirements for biomass-based diesel for 2017. EPA proposed setting the RFS for 2014 at the levels that were actually produced and used as transportation fuel, heating oil, or jet fuel in the country, of which 1.63 billion gallons is biomass-based diesel that consists mostly of biodiesel. The agency is proposing 1.7 billion gallons of biomass-based diesel for 2015, 1.8 billion gallons for 2016, and 1.9 billion gallons for 2017. Comments on the proposed volumes were due July 27, 2015.

The National Renderers Association submitted six pages of regulatory comments to EPA, first commending the agency for proposing multi-year volumes above those proposed by EPA in 2013. NRA also stated a multiple-year commitment will help restore needed stability and predictability to the biodiesel industry. However, NRA believes RFS volumes above those proposed by EPA are warranted and reasonable.

“For biomass-based diesel, we strongly recommend that EPA adopt RFS volume levels of at least 2.0 billion gallons annually in 2015 and 2016, and 2.3 billion gallons in 2017,” stated the letter signed by NRA President Nancy Foster. “The industry has the ability and capacity to exceed the RFS volumes in the agency’s proposal, as demonstrated by the fact that production has consistently outpaced RFS volumes since the start of the program. Notably, EPA’s proposal would only grow volumes to 1.9 billion gallons by 2017, which is just slightly higher than the industry’s actual production of more than 1.8 billion gallons in 2013.” For advanced biofuel, NRA urges EPA to adopt a minimum of 3.2 billion gallons (on an ethanol-equivalent basis) for the 2014 and 2015 RFS, and 4.0 billion gallons for 2016 as production capacity exists to meet these volumes. EPA is proposing 2.68 billion gallons for 2014, 2.9 billion gallons for 2015, and 3.4 billion gallons for 2016.

NRA’s comments went on to state that the rendering industry is committed to the biomass-based diesel market, having made considerable investments over the last decade in production and infrastructure. In addition, biodiesel and renewable diesel – when refined from non-edible animal by-products and used cooking oil – are truly recycled and renewable low-carbon alternative fuels. They are also highly sustainable because they use by-products as feedstocks instead of relying on virgin oils.

NRA’s recommendations are in line with the National Biodiesel Board’s (NBB’s) submission.

“We believe any volume less than 2 billion gallons and annual increases of less than 300 million gallons through 2017 would be unreasonable, particularly when you consider the availability of prior years,” stated the comments signed by Anne Steckel, NBB’s vice president of federal affairs. NBB noted that more aggressive biomass-based diesel volumes of 2.4 billion gallons in 2016 and 2.7 billion gallons in 2017 are

warranted and needed. The board’s comments went on to note that since 2013, the severe delays in finalizing RFS volumes have led to a significant setback in the industry’s evolution.

“NBB recently conducted an analysis of private and public data to identify at least 54 biodiesel plants in 30 states that have either idled production or shut down over the past two years as the EPA failed to implement a functioning RFS for 2014 and beyond,” the letter went on to state. “This includes 25 plants that have closed and 29 plants that have idled temporarily. Dozens of other plants have sharply reduced production.” Along with the letter, NBB submitted a 150-page in-depth comment document supporting its position.

A final rule is expected by November 30, 2015.

Canadians Like Renewable Fuels

According to a new national survey, more than three-quarters (88 percent) of Canadians believe more renewable fuels should be produced in Canada and that government should do more to promote the industry. The poll of 1,750 Canadians aged 18 and over showed that 85 percent of respondents feel pride in Canada’s biofuels industry. The survey was conducted online in April by Abacus Data Inc. Survey results are available on the Canadian Renewable Fuels Association’s (CRFA’s) website at www.greenfuels.org.

The survey also showed that at least one in three Canadians would like there to be more support for renewable fuels. When respondents learned of the current federal biofuels mandates, 31 percent said their impression of government action on climate change improved. Two in three Canadians (67 percent) also support increasing the level of biodiesel from the current mandate of two percent to five percent. According to CRFA, the renewable fuels industry provides Canadians with over 14,000 jobs and generates \$3.5 billion in economic activity every year.

German Biodiesel Exports Down

German biodiesel exports for the first quarter of 2015 dropped to about 97 million gallons, down 23 percent from the same time in 2014 when exports were nearly 127 million gallons, according to an appraisal by the Agricultural Market Information Company using data from the German Federal Statistical Office (GFSO). The Netherlands received approximately one-quarter of those exports and, despite a sharp 45 percent downturn in imports from the first quarter of 2014, continued to be the main importer.

The biggest growth in imports of German biodiesel was seen in Sweden, where nearly 10 million gallons arrived compared to only 43,000 gallons in 2014. The GFSO also recorded a significant rise in Belgium and Denmark imports while noting a drop in France’s imports to nearly 10 million

gallons, which still leaves the country the third-largest importer of German biodiesel, with Austria coming in fourth.

Around 97 percent of German biodiesel exports went to other EU countries.

Hawaiian Companies Unite

In a unanimous vote, members of Pacific Biodiesel Technologies LLC and Big Island Biodiesel LLC (BIB) decided to join forces, making BIB a wholly-owned subsidiary of Pacific Biodiesel Technologies as of July 1, 2015. The move unites all members in an effort to expand biodiesel production in Hawaii and continue to decrease the state's dependency on imported fossil fuel.

Pacific Biodiesel Technologies President Robert King noted it is fitting to expand membership during his company's twentieth anniversary year.

"It will be easier to run as one company," stated King. "But it is equally important to have BIB investors become part of the many projects Pacific Biodiesel is involved with. There is so much related activity, and all projects are integral to a sustainable future for our island community."

Iowa Biodiesel Gets Tax Break

As of July 1, 2015, diesel blended with at least 11 percent biodiesel (B11) in Iowa will see a fuel tax exemption of three cents per gallon compared to regular diesel. Signed by Governor Terry Branstad in February, the law has already increased the state fuel tax by 10 cents per gallon for both diesel and gasoline to help improve Iowa's roads and bridges.

The three-cent tax exemption for B11 and above is in place for five years.

Iowa is the top biodiesel-producing state. Plants produced 227 million gallons in 2014, down slightly from the 2013 record of 230 million gallons.

More Fraud Cases Resolved

Several more individuals have pleaded or been found guilty of fraud against the United States (US) federal and state governments in biodiesel schemes.

Philip Joseph Rivkin, also known as Felipe Poitan Arriaga, pleaded guilty in mid-June to making false statements under the Clean Air Act and mail fraud as part of a scheme to defraud the Environmental Protection Agency (EPA) by falsely representing he produced millions of gallons of biodiesel. Rivkin faces more than 10 years in prison and \$51 million in restitution.

In the plea agreement, Rivkin admitted that from July 2010 to July 2011, his business, Green Diesel LLC, falsely generated renewable fuel credits, known as renewable identification numbers (RINs), and sold them to oil companies and brokers for more than \$29 million. On April 30, 2012, EPA issued Green Diesel a notice of violation alleging the company generated more than 60 million invalid biomass-based diesel RINs without producing any qualifying renewable fuel, and transferred the majority of these invalid RINs to others. Rivkin was arrested in Houston, Texas, on June 18, 2014.

In July, John and Lisa Brichetto were both found guilty of theft by bilking Morgan County in Tennessee and the state

Continued on page 24



RENDERING TRAILERS

● 23 YEARS ● 12,000 TRAILERS

PROVEN TRAILERS, BUILT TO YOUR SPECIFICATIONS



**WAVE* FRAME-TYPE
RENDERING TRAILER**

- 850 gallon internal blood tank
- External hoist (no doghouse)
- Aerodynamic dual-wall sides
- All aluminum frame



WAVE* TOTE DUMP

- Proven Organic Waste and Fat/Bone hauler
- All aluminum construction
- Long reach aluminum bucket
- Quad Axle trailer as shown 14,750 lbs



**CLASSIC* FRAME-TYPE
RENDERING TRAILER**

- Steel frame
- Optional air-operated center gate
- Dumping or non-dumping style available
- Internal or external 850 gallon blood tank available

CUSTOMIZED OPTIONS



Half lid



Ball valve drains, in gate or underbody



Air-operated center gate



Blood tank and center gate

**RENDERING EXPERIENCE
CALL US FOR REFERENCES**



**PROUD
MEMBER**

WWW.TRAVISTRAILERS.COM
800-535-4372
info@travistrailers.com

out of \$142,215 in 2011. The Brichettos were the principals in Northington Energy LLC, which received grants and loans to build a biodiesel production facility near Wartburg, Tennessee. In addition to the grants and loans to the Brichettos — of which only \$4,908 was reportedly used to buy equipment — the state contributed \$293,000 worth of utilities and \$150,000 for a road in the Flat Fork Industrial Park. The US Department of Agriculture also funded \$25,000 for site improvements and Morgan County provided \$9,000. However, the biodiesel plant, completed in late 2008, never went into production and a local bank later foreclosed on the 7,500-square-foot facility, a local newspaper reported.

The Brichettos were indicted in May 2011 but a series of problems delayed the trial. The couple is free on bond pending sentencing. The district attorney's office for the 9th Judicial District will ask for prison time as well as restitution.

San Francisco to Use Renewable Diesel in City Fleet

The city of San Francisco, California, is taking steps to protect the climate from the harmful effects of diesel emissions by phasing out petroleum diesel in the municipal fleet and replacing it with renewable diesel by the end of the year.

"Because of the state and federal governments' incentives to producers to manufacture low carbon fuels, this switch can potentially reduce our city's fuel costs," said San Francisco Mayor Edwin Lee. The city started on the path of using cleaner fuels about six years ago by using a blend of 20 percent biodiesel with petroleum diesel. Switching to renewable diesel will accelerate the progress the city has made in cleaning its diesel fleet, slashing greenhouse gas emissions from diesel vehicles by more than 60 percent. Using renewable diesel also reduces the emissions of soot and other air quality pollutants that harm the health of local residents.

The San Francisco Fire Department piloted the use of renewable diesel for its fleet over six-months last year, running cleaner and more efficiently, according to Fire Chief Joanne Hayes-White. Although renewable diesel is more expensive to produce at this time, it qualifies for valuable credits under federal and state programs, allowing renewable diesel to be priced at or below conventional petroleum diesel.

REG Upgrading, Buying Facilities

Renewable Energy Group Inc. (REG) is investing \$31 million to upgrade and enhance the company's 45-million-gallon-per-year Danville, Illinois, biodiesel refinery. Improvements include distillation capabilities along with pretreatment capacity, storage, logistics, and transportation enhancements. REG acquired the Danville biorefinery in 2010. The plant currently employs 34 full-time workers and the upgrade project will utilize an additional 80-100 full-time contract workers. The Danville project marks the sixth major biorefinery enhancement REG has undertaken since late 2012.

In addition, REG is acquiring all the assets of Imperium Renewables Inc., including a 100-million-gallon annual capacity

biomass-based diesel refinery and deepwater port terminal at the Port of Grays Harbor, Washington, for \$15 million in cash and 1.5 million shares of REG common stock. In addition, REG will pay either \$1.75 million in cash or 175,000 shares of REG common stock at closing as elected by REG. For two years after, Imperium may receive up to five cents per gallon for biomass-based diesel produced and sold. Also, Imperium will retain its net working capital value of approximately \$25 million and REG will assume \$5.2 million of Imperium's debt that includes an additional loan capacity of up to \$5 million to fund capital expenditures and improvements at the facility.

Imperium Renewables began developing proprietary biodiesel technology and processes in 2004 with the refinery operational August 2007. The facility includes 18 million gallons of storage capacity and a terminal that allows feedstock intake and fuel delivery by deep-water vessel, rail, and truck.

USDA Biorefinery Program Changed, Funding Announced

The United States Department of Agriculture (USDA) is accepting applications for funding under a program that supports the production of advanced biofuels, renewable chemicals, and biobased product manufacturing. The funding is available through the Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program, formerly known as the Biorefinery Assistance Program.

USDA has made significant improvements to the program that provides loan guarantees of up to \$250 million to construct and retrofit commercial-scale biorefineries and to develop renewable chemicals and biobased product manufacturing facilities. Biorefineries are now able to receive funding to produce more renewable chemicals and other biobased products in addition to advanced biofuels. In addition, biobased product manufacturing facilities are eligible to convert renewable chemicals and other biobased outputs into "end-user" products. Furthermore, USDA has streamlined the application process.

USDA released a new report in June that shows America's biobased industry contributed four million jobs and nearly \$370 billion to the American economy in 2013.

There are two funding cycles: applications for round one are due by October 1 with applications for the second round due by April 1, 2016. For information on how to apply, see page 38432 of the July 6, 2015, *Federal Register*.

UPS Commits to Renewable Diesel

Global shipping company UPS, based in Atlanta, Georgia, has entered into agreements with three leading renewable fuel suppliers for up to 46 million gallons of renewable fuels over the next three years. The commitment constitutes a 15-fold increase over prior usage and makes the cargo carrier one of the largest users of renewable diesel in the world.

Neste, Renewable Energy Group (REG), and Solazyme will supply renewable diesel to UPS to help facilitate the company's shift to replace more than 12 percent of its conventional diesel

Continued on page 36

markets due to price. He said the key to tallow will be biofuels policy in the United States, and while New Zealand is still able to export its tallow to China, Australia has not been able to get its unrefined edible tallow into that market since April 2013 due to internal issues within China.

Damian Evans, Colyer Fehr Tallow, reported that 80 percent of Australia's tallow production is exported, roughly 428,700 metric tons in 2013 and an estimated 463,000 metric tons in 2014, confirming Australia as the world's largest exporter of inedible tallow. The United States exported 384,100 metric tons in 2013 and 402,800 metric tons in 2014. Evans attributed the increase in exports last year to the 2013 closing of Symex Ltd.'s Port Melbourne oleochemical plant, a manufacturing facility that had been operating for 156 years.

Evans showed that China had been a key importer of Australian tallow for industrial uses, as much as 262,400 metric tons in 2008, due to China's ban on US and Canadian tallow after BSE was discovered in both countries in 2003. However, those numbers have dropped off considerably (71,000 metric tons in 2014) due to lower prices for palm oil and an internal gutter oil scandal in China. On the flip side, exports to Singapore more than doubled from 2012 (123,000 metric tons) to 2013 (309,000 metric tons) bound for Neste's renewable diesel facility. Evans then explained the complex US biofuels policies and their effect on Australian tallow exports and prices. He believes there will be a move away from aggressive biofuels policies that would significantly benefit Australian tallow.

The symposium wrapped up with a report on Australasia, which is comprised primarily of Australia and New Zealand, by Bruce Rountree, New Zealand Renderers Group. There is a lot of collaboration between the two countries where the predominant raw materials are beef and sheep, of which New Zealand production has been steady while Australia's is down a bit due to drought. New Zealand meat processors closed four rendering plants in the past two years in a trend to send product to independent renderers for processing. Since 1990, New Zealand has seen a change in land use by food-producing animals: sheep use is down 43 percent, beef is down 10 percent, while dairy is up 78 percent.

Meat and bone meal exports from New Zealand are steady at around 150,000 metric tons with predictions of it ticking up a bit over 160,000 metric tons in 2015. Indonesia takes over half of New Zealand's meat and bone meal, followed by China, the United States, and Taiwan. Tallow production in 2014 was down from previous years, to 120,000 metric tons, but is estimated to be just over 140,000 metric tons in 2015. Almost 70 percent of tallow exports are destined for China, with Singapore taking just over 20 percent.

Contamination from plastic and metal in rendered meals is a problem in both countries and customer-specified species testing is becoming more prevalent; however, meat and bone meal processed at high temperatures damages DNA and impacts test sensitivity. New Zealand renderers process raw material at low temperatures. Rountree stated that looking forward, China remains a huge potential market and although it can be difficult at times, the rewards are there. **R**

WALINGA®

RENDERING UNITS





FRONT FORKLOAD UNIT



END DUMP UNIT



SEMI TRAILER UNIT

FEATURES

- All Aluminium
- 100% welded construction
- Aerodynamic front
- Recessed hoist
- Full open top
- Water tight sealed tailgate
- Hydraulic controls

OPTIONS

- Air operated tailgate lock
- Salad buckets
- Body load divider
- Sealed work lights
- Solid roof
- Remote controls
- Roll tarp roof

www.walinga.com



**ENGINEERED
TRANSPORTATION
EQUIPMENT**

Walinga USA
Wayland, MI
(800) 466-1197

Email: tjm@walinga.com
Website: www.walinga.com

Good Prospects for Used Cooking Oil in EU Biodiesel?

By Bruce Ross
Ross Gordon Consultants SPRL

This correspondent attended the Oleofuels 2015 conference in mid-June in Frankfurt, Germany, on behalf of the National Renderers Association (NRA). The conference is one of a series organized by Active Communications International that attracts excellent speakers and an audience of biofuels industry stakeholders from Europe and beyond. The audience included European Commission and national government officials, traders in biofuels and biofuel raw materials, renderers, European Union (EU) biodiesel producers, trade association officials, biofuel machinery manufacturers, fuel storage companies, non-governmental organizations involved in developing certification standards, and journalists.

The mood of the conference was more optimistic than last year. The sense of optimism stemmed largely from the recent agreement among EU member states and the European Parliament that should bring a much clearer regulatory environment, including allowing second-generation biofuels (produced from waste oils) a more certain market while not penalizing first-generation fuels (made from virgin oils). At the same time, many EU member states are encouraging the use of used cooking oil (UCO) and, to a lesser extent, animal fats as feedstock for biodiesel and/or hydrotreated vegetable oil (HVO) production.

EU Regulatory Environment for Biofuels

Andreas Pilzecker of the European Commission's Energy Directorate-General emphasized that, imperfect and slow to change as it may be, the EU's renewable energy and biofuels strategy is at least now clearer. Conference delegates welcomed the fact that the EU is trying to put in place a long-term strategy for renewable energy, including biofuels, as this should give the sector a stronger basis for future development and investment. Pilzecker showed that 5.4 percent of EU biofuels are now "compliant" renewable fuels under EU rules. The Commission's official estimate is that by 2020 8.6 percent of EU transport energy will be from crop-based biofuels, suggesting that the Renewable Energy Directive (RED) has been largely successful with respect to biofuels. The forthcoming amendment to the RED – that will bring indirect land use change (ILUC) factors into biofuels reporting requirements by 2017, thus limiting further encouragement of crop-based biodiesel – should not affect the EU's ability to reach that 8.6 percent figure. In other words, it's "business as usual."

Under the Commission's proposed 2030 strategy (not yet adopted), the EU would, in the future, have an overall 40 percent greenhouse gas (GHG) reduction target with sub-targets of a 27 percent share of renewable energy in the EU and 27 percent energy efficiency improvements. For biofuels specifically, the Commission does not think it appropriate to

establish new targets for the GHG intensity of fuels used in the transport sector or any other sub-sector after 2020. The Commission has already indicated, for example, that food-based biofuels should not receive public support after 2020. The focus of policy development ought to, in the Commission's view, be second- and third-generation biofuels and other alternative, sustainable fuels.

Several conference participants pointed out that the German government is already switching its renewable energy policy to focus on GHG reduction, thus providing a sort of blueprint for others to follow. Delegates felt that palm oil is unlikely to be able to satisfy either German or EU GHG reduction requirements so, for many reasons, the EU biofuels industry needs feedstocks that will allow them to meet not only ILUC demands but demonstrable GHG reductions.

State of the EU Biofuels Sector

Analysis of market developments was provided by Caroline Midgley, head of biofuels research at LMC International, and by Matthew Stone, global head of research at SCB Group. They reported that following a period of rapid expansion (2006-2009), EU fatty acid methyl ester capacity has been in decline since 2012. The utilization rate of that capacity is now around 55 percent. By contrast, HVO capacity continues to expand rapidly and utilization rates are much higher – around 90 percent. This is essentially due to Finnish company Neste Oil. Low feedstock and diesel prices have put downward pressure on rapeseed methyl ester, pushing prices to their lowest level since 2009. However, cheap diesel relative to rapeseed methyl ester has raised the incentive to use UCO/tallow methyl esters.

The EU's consumption profile is very diverse. Germany's 2.3 million-ton-per-year biofuels market consumes 90 percent crop-based biofuels and 10 percent waste-based around a geographically diverse network of inland refineries. In the United Kingdom, double counting of some fuels toward RED targets has encouraged the polar opposite structure, and Spain is likely to follow the United Kingdom. The choice of feedstocks is widening to include more palm waste alongside tallow and UCO.

The main message was that with the recent EU political agreement on the ILUC amendment to the RED set the stage for the EU biofuels industry to monetize environmental best practices in pursuit of a six percent GHG saving subject to a seven percent cap on first-generation crop-based fuels. Stone believes the EU market can grow sustainably, but it needs to adopt best practices on feedstocks, chain of custody, and technology to address the "post-mandatory world from 2020."

The consensus at the conference was that the current regulatory environment is favorable to the production of UCO methyl ester and, to a lesser extent, tallow methyl ester. There are even first-generation feedstock production facilities that are now being adapted for the production of biodiesel from other fats and oils, or multiple feedstocks, but there is a question mark over whether the EU has sufficient supplies of such raw materials. One delegate thought that the maximum percentage of biofuels that could come from UCO is likely to be three percent. Collection systems in many member states are already bringing in most UCO; domestic sources, while not yet well-organized, are unlikely to net significant additional amounts. Some delegates believe there may still be significant untapped waste sources of raw materials for biofuels (i.e., food waste, municipal waste, etc.). There was little debate about potential new vegetable feedstocks despite presentations about Crambe and Pongamia.

Certification Schemes

The main development is the demise of the German version of the International Sustainability and Carbon Certification (ISCC) system. In the absence of any double counting in Germany, the ISCC-DE (Deutschland) certification system is no longer needed as the system was designed with double-counted fuels in mind. This should allow other certifiers more scope. ISCC-EU remains the market leader but the Roundtable on Sustainable Biomaterials is playing a bigger role. Some familiar remarks were made about doubts in the market over the authenticity of UCO and the potential for fraud, though others pointed out that the authenticity of all feedstocks could equally be questioned. This is now more than academic as demand for UCO is rising.

Recognition of Animal Fats/UCO for Biodiesel

There was a consensus among delegates that UCO has a good future as a biodiesel feedstock in the short-to medium-term due to a number of economic, technical, and environmental advantages. The EU's regulatory system reflects this, at least until 2020, even after the ILUC amendment comes into effect beginning in 2017. The same can

be said for animal fats, though the EU biofuels sector seems to prefer UCO. The future of UCO as a feedstock depends on the development of alternative, non-crop-based feedstocks and of the regulatory environment. The conference discussions suggested that viable alternatives to UCO are unlikely to be available in sufficient quantities in the short-term. The biggest challenge to UCO's advantageous position could come from the ability of the biofuels industry to source sufficient quantities of UCO of the right quality. R

RENDER

The International Magazine of Rendering

is on

facebook

Please join us for additional news and industry events.

Secure the Contents of Your Bins, Containers and Trucks

Lock America delivers a full range of security locks:

- Thousands of security key codes
- Unique key codes for each customer
- Drill and pick-resistant options available

Great for dumpsters & collection bins.

Brass body with hardened steel shackle.

10,000 key combinations.

Ask about our key control program to deter theft

Set your own combination.

Get your own unique key combination.

Available in 7 colors and 2 sizes.

800-422-2866
LOCK AMERICA INC.
The Definitive Word in Locks

9168 Stellar Court
 Corona, CA 92883
 www.laigroup.com
 E-mail: sales@laigroup.com

951-277-5180
 Fax 951-277-5170

World Renderers Forge Ahead into the Future

The World Renderers Organization (WRO) held its annual meeting in early June at the European Fat Processors and Renderers Association (EFPPRA) 15th Congress in Krakow, Poland. Hosted by the Polish Renderers Industry Employers Association, the congress provided an excellent venue to share knowledge and present Polish culture.

Chairing his final WRO meeting, President Stephen Woodgate discussed the results of a member survey that revealed the organization's main focus should be:

- building relationships with international bodies such as the World Organization for Animal Health, or OIE, Food and Agriculture Organization (FAO), and World Trade Organization;
- developing relationships with allied groups like the International Feed Industry Federation (IFIF), IMS Global, Global Aquaculture Alliance, World Wildlife Federation, GlobalG.A.P. (for sustainability) and other non-governmental organizations, and Aquaculture Stewardship Council; and
- developing WRO initiatives in communications, code of practice, and an animal by-products roundtable.

Survey responses supported WRO taking a lead in developing educational programs for the worldwide rendering industry, and showed division (52 percent no, 48 percent yes) on whether the organization's current dues were sufficient to meet the needs of WRO priorities. The member survey concluded that WRO should engage with international bodies and develop its own initiatives in areas ranked high by the members. Top priority should be dedicated to collaborating with OIE, FAO, and IFIF, with participation in events and developing initiatives encouraged within the scope of the WRO budget.



WRO President Stephen Woodgate (*left*) accepts the Brian Bartlett Service to Industry award from WRO First Vice President Tim Juzefowicz.



From left, new WRO officers are Martin Alm, second vice president; Tim Juzefowicz, president; and Fernando Mendizabal, first vice president.

Woodgate provided a report on his presentation to the 83rd OIE World Assembly on the importance of the rendering industry. This was the first time WRO has made such a presentation to the OIE, whose audience was comprised of chief veterinary officers from over 180 nations around the world. His message was that WRO members are custodians of the environment and animal health. In closing, Woodgate announced he was very proud of WRO's achievements over the past two years during his presidency. The current edition of *WRO Outlook* effectively summarizes those activities in his farewell message. WRO First Vice President Tim Juzefowicz applauded Woodgate for his leadership and service, and presented him with the distinguished Australian Renderers Association's (ARA's) Brian Bartlett Service to Industry award.

National Renderers Association (NRA) First Vice President Tim Guzek discussed the group's 2020 strategic plan that was recently approved after members voiced concerns over consolidation in the meat and rendering industries and to provide direction to NRA's new president.

WRO officers for 2015-2017 were announced, with Juzefowicz (Australia) as president, Fernando Mendizabal (Mexico) as first vice president, and Martin Alm (Germany) as second vice president. The task for the WRO leadership team is to represent the rendering industry accordingly. Feel free to contact the officers with any advice, to learn more about the organization's activities, or to receive support. Future WRO meetings are (interim) October 21, 2015, at the NRA Annual Convention in Dana Point, California, and (annual) June 2-3, 2016, at the EFPPRA Congress in Greece.

ABRA's New Educational Program

Lucas Cypriano, Associacao Brasileira de Reciclagem Animal (ABRA) in Brazil and a member of the WRO Scientific

Advisory Panel, reported progress in implementing a hygienic rendering program for the Brazilian rendering industry. At the end of 2012, the ABRA board decided it was time to develop a Brazilian quality program, naming Cypriano as the technician in charge. In order to develop the program more quickly, ABRA contacted ARA seeking Cypriano's participation in their successful hygienic rendering program, which was allowed.

In July 2013, training was held at the University of Queensland, Gatton, under the coordination of Bill Spooner and Peter Husband. The concepts addressed and training received showed that Brazilian renderers may be not operating their control systems with the best technologies. Once back in Brazil, Cypriano visited over 30 facilities, collecting more than 300 samples to analyze the production challenges locally. During these visits, he noticed the typical Brazilian "hot spots" (places in the production line where bacteria may survive or multiply), creating a very interesting and educational image data bank.

From these results, supported by the knowledge and concepts learned at ARA and respecting Brazilian federal laws, ABRA created the Brazilian hygienic program "AATQ" (ABRA que Aqui Tem Qualidade) that initiated the Brazilian rendering code of practice.

The training program is taught over four days with three booklets and 15 presentations. It provides the basis for Brazil's rendering industry to put in place a hazard analysis and critical control program, utilize the best cleaning techniques, ensure a safe protein meal transport system, attend AATQ code of practice training, and further improve operations. To be approved as able to conduct the AATQ program in their rendering facility, the attendee must have at least 70 points out of 100 possible on the final exam.

With two training sessions performed so far, ABRA is preparing the foundation for a safe feed accreditation program. Evaluation of the training has been extremely positive, with attendees rating the first two classes at more than 90 percent of excellent on educational content and speaker knowledge.

Another training class is scheduled for September 1-4, 2015, in Curitiba, Brazil, and participation is open to all involved in the rendering industry. More information is available at www.abra.ind.br. In addition, ABRA is working with WRO to extend this hygienic training program to all Latin American countries, translating all material from Portuguese to Spanish in order to offer the same training program in Spanish-speaking countries. Contact Cypriano at dep.tecnico@abra.ind.br for more information about Brazil's new training program. **R**



Participants attend ABRA's hygienic rendering training program in Brazil in June. A second training class is being offered in September.

Washington *Continued from page 7*

NAAQS – EPA's move to update the National Ambient Air Quality Standards (NAAQS), better known as the ozone rule, is again characterized by critics as the agency out of control. The agency proposes to lower allowable ozone levels for six principal air pollutants, as it did in 2008. The problem is over half the country has not come into compliance with the 2008 ozone standards, yet EPA wants to tighten that standard again. The agency says most counties across the country meet the newly proposed lower standard and 35 states are taking action to minimize ozone on their own. However, EPA also admits 227 counties in 27 states do not meet the 2008 standard and now face a new, more stringent standard in the proposed rule. EPA says it will finalize its rule by the end of the year.

Industry critics of the ozone rule-making contend ground level ozone levels have been cut 30 percent since 1980 and the reduction will accelerate as more states come into compliance with the 2008 ozone NAAQS. In the Senate, legislation has been introduced to block the ozone rule, with a companion bill introduced in the House. Senator Joe Manchin (D-WVA) says, "Placing new, costly regulations on states when they have not had sufficient time to comply with existing standards is unfair. Lowering the ozone standard would cost states billions of dollars and thousands of good-paying jobs."

The Senate bill requires EPA to focus resources on the worst areas for air quality/ozone rather than propose another broad national rule. Both House and Senate bills prohibit EPA from lowering ozone (NAAQS) until at least 85 percent of counties now out of compliance have attained the 2008 standard. A second bill in the Senate and House would amend the Clean Air Act to extend the intervals between the NAAQS reviews from five years to 10 years, preventing EPA from reviewing the 2008 ozone standard until February 2018.

Given there are 15 Republicans and a handful of Democrats running for their party's respective nomination for president, it seems Congress would be better off ignoring presidential politics and worry instead about voters' perceptions. **R**

Pork Production to Surpass Beef

For the first time in 75 years, the United States (US) red meat industry is expected to produce more pork than beef in the second quarter of this year. The US Department of Agriculture Economic Research Service (ERS) is forecasting 2015 commercial beef production to be 23.8 billion pounds with pork set to reach 24.5 billion pounds. The report stated that second-quarter total red meat and poultry production is below earlier estimates "because lower beef and turkey production will likely offset higher broiler and pork production."

Although dairy cow slaughter is slightly above a year ago, ERS said it has not offset reduced beef cow slaughter that is due to low inventories and pasture conditions. Hog litter size and inventories have rebounded after suffering through porcine epidemic diarrhea virus last year. Turkey and egg production are lower due to an outbreak of highly pathogenic avian influenza, and although it has not affected broiler production, trade in all poultry products has declined greatly due to the virus. **R**

New Research Refutes Prior Study on Feather Meal

Editor's note – Zhixin Chen and Chen Liu are graduate research assistants at Clemson University and Dr. Joseph Thrasher is a professor of chemistry.

In recent years, the public has become aware of compounds that can accumulate in the environment and end up in food. Recently, researchers have studied pharmaceutical residues in food products for human and/or animal consumption.¹⁻⁶ Pharmaceuticals and personal care products (PPCPs) as defined by the United States (US) Environmental Protection Agency (EPA) primarily include human and veterinary drugs, cosmetics, and other daily-use chemicals. The use of PPCPs has increased along with rapid population growth. According to a literature search using the American Chemical Society's SciFinder, the number of publications (i.e., scientific peer-reviewed articles, published abstracts from presentations at scientific conferences, etc.) on PPCPs increased from only three in 1999 to 175 in 2014. This confirms that the study of PPCPs is becoming progressively more important in the environmental, food, and life sciences, especially as analytical techniques continue to improve toward measuring increasingly smaller amounts.

In 2012, a group of scientists from the Center for a Livable Future at Johns Hopkins Bloomberg School of Public Health published a paper (Love et al. 2012) asserting a concern that PPCPs might be a food safety hazard. Their study reported positive detections of 24 PPCPs in a total of 12 feather meal samples (five feed grade and seven fertilizer grade) obtained from rendering plants, distributors, or animal feed mills in either the United States or China.⁷

However, did this paper present the true scenario in feed-grade feather meal? Do these results represent the entire picture of the poultry and rendering industries, especially in the United States? Is chicken feather meal really a reentry route of PPCPs into the human food supply? First, the concentrations of the 24 PPCPs measured by Love et al. were not at high levels associated with risk to human health, but were sometimes near reportable detectable lower limits. (Analyte is a term used for a substance that is being detected and a reporting limit is the lowest level that an analyte can be both detected and measured within a reasonable degree of accuracy and precision.) The Love et al. publication was quickly questioned by the rendering industry and scientists familiar with the rendering process because of both insufficient information on the source of the samples tested and the lack of any attempt to eliminate other potential sources of contamination such as processing plant water and municipal water.^{8,9} North American rendering companies do not sell feed-grade chicken feather meal in the 0.5 to 22 kilogram bags used in the Love et al. study, but rather in bulk by the truck load. Therefore, the origin, age, and history of the samples used in the Love et al. study were questioned. Furthermore, other scientists pointed out that fertilizer-grade chicken feather meals are not fed to

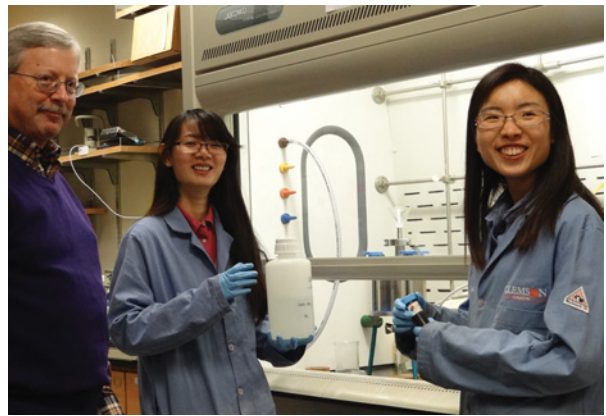


Photo courtesy of Rayleen A. Hendrix.

From left, ACREC researchers Dr. Joseph Thrasher, Zhixin Chen, and Chen Liu study samples for analysis of PPCPs in feed-grade chicken feather meal.

animals.⁹ In addition, feed-grade chicken feather meal from China has different product standards than in the United States and is not imported and fed in the United States.¹⁰ Thus, some might suggest that only three out of the 12 samples of chicken feather meal studied by Love et al. are relevant to the US feed supply. Love et al. did call for additional studies on chicken feather meal as well as some effort to identify the source of the contamination.

The rendering industry disputed the results of Love et al. and wanted to repeat the research on samples of known origin. Under the auspices of the Animal Co-Products Research and Education Center (ACREC) at Clemson University, Dr. Joseph Thrasher and his two graduate students Zhixin Chen and Chen Liu undertook a more detailed study of feed-grade chicken feather meal. Since many reports exist on the detection and measurement of PPCPs in surface, municipal, ground, and drinking water mainly due to human activities, the possibility of contamination of chicken feather meal by water was also considered. To better study feather meal in the United States, samples of fresh chicken feathers and chicken feather meal as well as municipal water, plant water, and dissolved air flotation (DAF) solids and treated water were collected at three rendering plants from different geographical regions of the United States. DAF is a wastewater treatment method used in the rendering industry to remove the suspended solids from recycled water, rinse water, etc.¹¹ The procedures for the collection of samples in this study were more clearly defined and under better control than Love et al. because:

1. samples were taken either directly off of the production lines at the rendering plants or, in the case of municipal water samples, were collected from supply pipes at the poultry slaughterhouses that were providing chicken feathers to those rendering plants;

2. samples were stored in the dark at less than -10 degrees Celsius until analysis; and
3. proper chain of custody paperwork was completed and kept on all samples.

Further sample preparation prior to analysis was carried out by the procedures outlined in EPA Method 1694.¹² The samples were then taken directly from the freezer and shipped overnight on frozen ice packs to AXYS Analytical Services Ltd. (Sidney, British Columbia, Canada), which is the same commercial laboratory that carried out the analyses for the Love et al. study.

Three samples of chicken feathers (one from each plant), three samples of feed-grade chicken feather meal (one from each plant), and two samples of filter cakes from the filtration of DAF-in water were analyzed by AXYS Analytical Services. A total of 16 aqueous samples (one to two samples of water from each rendering plant, one to two samples of nearby municipal water per rendering plant, and one sample each of DAF-in and DAF-out water for each rendering plant) were analyzed by the same company. The study examined these samples for 60 different PPCPs. Of these, 46 were group 1 analytes and 14 were group 2 analytes. Group 1 analytes are antimicrobials and some non-antimicrobials, such as stimulants, antidepressants, antihistamines, and analgesics. Group 2 analytes are tetracycline antibiotics. Samples of peat moss and deionized water from the Clemson University laboratory were also analyzed as blank controls for solid and aqueous samples, respectively.

Many of the substances claimed to be present in the Love et al. report were not found in the samples in the current study. In each of the six samples of chicken feathers and feed-grade chicken feather meal tested in the ACREC study, only two to four analytes out of the 60 PPCP compounds sought were found at levels above the reporting limits, ranging from one to 150 parts per billion (ppb). This is vastly different from the Love et al. report, which claimed six to 10 PPCP compounds with positive detections in their samples of US feed-grade chicken feather meal. Three analytes were found at concentrations 7.5 to 50 times below the tolerances established by the US Food and Drug Administration (FDA) for drug residues in uncooked edible tissue of chicken,¹³ although they were two to five times the concentrations reported by Love et al. The analytes found in the ACREC samples of finished feed-grade chicken feather meal were not always exactly the same as those found in the samples of incoming raw chicken feathers; however, rendering plants receive feathers from numerous chicken slaughterhouses and this study took only representative samples. Nevertheless, further analysis of the data set did show a statistical correlation between the analytes found in the samples of chicken feathers to those found in the samples of feed-grade chicken feather meal from the same respective plant. Interestingly, the sample of peat moss that was examined as a blank control was found to contain two PPCPs with concentrations in the range of six to 22 ppb. Also, caffeine, a PPCP, was found in one sample of chicken feathers at approximately 40 ppb, which was above the reporting limit.

The aqueous samples of municipal water and plant water turned out to be relatively clean. However, anywhere from zero to three substances were found in each of these samples with concentrations typically ranging from 0.003 to 0.080 ppb,

except for a couple of cases where caffeine was found at levels of 0.400 to 0.500 ppb. Again, for point of comparison, one substance (about 0.003 ppb level) was found in the deionized water from the laboratory. This same substance was also found in the two samples of municipal water taken from near one of the rendering plants, but in no other samples. Although some substances were found in the municipal and/or plant water supplying the slaughterhouses and rendering facilities, respectively, these results did not always give a statistical correlation to the substances found in the samples of feed-grade feather meal produced by those processing plants.

As one might anticipate based on the function of a DAF system to treat wastewater, the solid and aqueous samples analyzed from these systems each were found to have both the largest number of analytes and the highest concentrations of those analytes. Anywhere from four to 12 different PPCPs were found in either the solid or aqueous samples from the DAF systems of the three rendering plants used in this study. In these samples, the concentrations of acetaminophen and/or caffeine were typically the highest in the aqueous samples.

Returning to the presence of caffeine in both solid and aqueous samples, only anecdotal evidence was offered in the Love et al. study for caffeine being found in chicken feather meal. As mentioned in the supporting information to their journal article, they quoted e-mail text from an unidentified man who claimed his father told him that chickens were fed caffeine in order to keep them awake longer so they would eat more and grow faster. The authors of the Love et al. paper also reported that coffee pulp and green tea powders have been used as poultry feed ingredients. However, to support their claim, they offered only three journal articles that previously reported experimental feeding studies in Ghana and Japan. The ACREC researchers could find no evidence supporting that any of the aforementioned practices were characteristic of the US poultry industry from either searches of the scientific literature or consultation with professors of poultry science in Clemson University's Department of Animal and Veterinary Sciences.

Overall, about 40 percent of the PPCPs found in the samples associated with the current ACREC study are approved as drugs for administration in poultry primarily to fight disease and infection. The levels detected are much lower than the currently established tolerance levels for residue in chicken tissue, as outlined by FDA and in the Feed Additive Compendium. Common stimulants or drugs like caffeine and acetaminophen were often found in the DAF system but not in the processed, feed-grade chicken feather meal. Nevertheless, the levels of each were not of sufficient concentration as to pose a risk to human health. Furthermore, chicken feather meal is not consumed by humans and caffeine, when used appropriately as a food additive, is a substance generally recognized as safe by FDA.

Love and his colleagues Baron and Nachman¹⁴ have published a more recent paper in which they attempted to measure PPCPs in chicken breast meat among other samples (e.g., ground beef and milk), and they were unable to detect PPCPs in chicken breast meat with two exceptions. They obtained positive detection for caffeine and

Continued on page 33

Taking Control of Energy Costs

Wouldn't it be nice to simply turn a switch on and off to control energy costs and have budget certainty? That is about all the control most individuals and companies had in the United States until the late 1990s. At that time, the option of deregulation began in many parts of the country, with the promise of finally being able to control energy usage and how it was paid for. Then came phone calls, promises of giant savings, and new terms like commodity, distribution charges, basis, transportation, costless collars, derivatives, firm and interruptible, exotic options, polar vortex, and so on. Life became much more confusing when all a renderer really needed was power for its plant and gas for the boilers to make sure the 100,000 pounds of product that was just delivered to the plant floor in July could be processed.

This article and a series of others to follow will attempt to simplify and put into proper context energy usage in the rendering industry. Energy Management Resources has been working with renderers for the last 15 years and acts as an advisor to many, realizing the uniqueness of the industry as well as the individualism of facilities. The purpose of the series is to give some insight to energy usage and how to turn energy into a tool versus something that is highly complicated and hard to manage.

Have you found yourself asking questions such as:

- How do we identify energy usage and management measures to improve profit and loss in order to stay competitive?
- How do we lessen the amount of time spent "putting out fires" instead of managing energy usage?
- How can we leverage energy usage across multiple locations and divisions?
- How can we find the time, expertise, and internal resources to properly spend on energy purchasing, contracting, and reporting?
- Who can we get to help audit the utility bills for accuracy and make sure they get paid on time?
- Is the lowest cost energy really cheaper?

Some answers are available by utilizing data and reviewing some key points about a company's/plant's energy usage and how it is used and purchased. From that data, the next step is to develop and implement a structured comprehensive overall energy strategy.

In the rendering industry, energy costs are in the top five of all budgetary items. As mentioned above, most companies do not have the time and internal resources to ensure they have the most economic energy costs and most reliable services available. In addition, regulatory issues and price risks due to trends in the energy markets can have a major impact on overall operating costs.

To start, examine how your company can better manage energy usage and the costs associated with it. A good place to begin is by answering the following questions on how they apply to your business operations.

How is energy used in our operation?

This is the cornerstone to putting together an overall comprehensive strategy. Break it down to its simplest form. Is natural gas being used to generate British thermal units (BTUs)? How do BTUs get used in our processes? What happens if those BTUs are not delivered? How are electrons used? Are we getting the maximum value of BTUs? And so on.

When do we use energy?

The time of day that most energy is consumed is very important to review as well as the time of year the majority of production takes place. For example, electric costs will be greater in summer due to demand during peak hours of the day when the cost per kilowatt hour is higher. Some energy folks say that to avoid setting a high demand level that will cost more, possibly look at shifting some production to off-peak hours of the day. Well, renderers know what the consequences are of that action with 100,000 pounds of product sitting on the plant floor in July. The key here is to look at operations first and then explore the many options that can provide the same outcome by working with your team and trusted advisors who truly understand your operational requirements.

How much energy do we use?

Use real data to analyze consumption. Understanding where energy is used at different places and times is critical for an overall assessment.

Combining these three basic steps, a company team can work with its advisors in developing the best short- and long-term strategies for procurement and pricing, efficiency and sustainability, and throughout the whole energy spectrum, including resilience.

Regulatory Issues

Regulatory issues can be very complex and, at times, confusing. Utility companies that deliver electricity and gas to a rendering plant make periodic changes to the tariff rates and most often do not inform their customers of pending changes or rate increases coming down the road until they appear on a utility bill. Or maybe the form letter the utility company sent notifying its customers of these changes was overlooked. Depending on a plant's geographic location, deregulation programs may provide some cost savings options versus having to purchase energy from the utility.

On the power side, unfortunately, there are only a dozen or so states that allow electric retail purchasing by using a third-party supplier with the power being delivered to the utility company's meter at a plant. The utility customer pays the supplier's generation cost, which in most cases will be lower than the utility's own generation cost of the power. The utility customer is still responsible for transportation and distribution costs.

On the natural gas side, almost all of the country has the option to use a third-party supplier that delivers the gas

to a utility distribution line and on to a customer's meter. The advantage here is being able to control costs by hedging or fixing rates for some or all the usage over a period of time.

Some utilities may offer energy efficiency programs or rebates that might support the decision to proceed with a project that was under consideration (i.e., lighting retrofit). Yet, it takes time to research what, if any, such programs are available and the qualifications to take advantage of them.

In summary, a comprehensive energy strategy needs to look at the total picture and all of the available options. Being able to answer the "how," "when," and "how much" questions is just the first step.

The next article in this series will be "Understanding the Complex Marketplace" and will focus on how to reduce confusion by developing and implementing a solid overall comprehensive energy strategy. **R**

ACREC Continued from page 31

its metabolite 1,7-dimethylxanthine, but again the levels of caffeine were deemed by these researchers not to be harmful to human health. Based on their own estimate, a five-ounce cup of coffee contains over 33,000 times more caffeine than consuming chicken with the highest level of caffeine found in their study.¹⁴ In conclusion, both the ACREC study reported herein, from which a substantially more detailed manuscript is in preparation for submission to a peer-reviewed journal, as well as the new report from Love and colleagues on PPCPs in chicken meat refute claims that chicken feather meal is a previously unrecognized route for reentry of PPCPs into the US food supply.

As a final note, this research was funded by a grant through Clemson University's ACREC sponsored by the Fats and Proteins Research Foundation and the Poultry Protein and Fat Council. **R**

References:

1. Smith, M. 2014. "Veterinary Drugs Residues: Anabolics." *Encyclopedia of Food Safety* 3:55-62.
2. Lee, M.H., H.J. Lee, P.D. Ryu. 2001. "Public Health Risks: Chemical and Antibiotic Residues – Review." *Asian-Australasian Journal of Animal Science* 14(3):402-413.
3. Galer, D.M., A.M. Monro. 1998. "Evaluation of the toxicity of drug residues in food: The case for 'relay' toxicity studies." *Food Additives and Contaminants* 15(4):494-500.

4. Kaufmann, A., P. Butcher, K. Maden, S. Walker, M. Widmer. 2015. "Reliability of veterinary drug residue confirmation: High resolution mass spectrometry versus tandem mass spectrometry." *Analytica Chimica Acta* 856:54-67.
5. Qin, Z., S. Chen, T. Lu, S. Zeng, J. Sun, J. Lv, Q. Hua, A. Wu. 2009. "Simultaneous Screening for Five Veterinary Drug Residues by a Developed Multiplexed Luminex Assay." *Analytical Letters* 42(2):255-264.
6. Turnipseed, S.B., W.C. Andersen. 2008. "Veterinary Drug Residues." In *Wilson and Wilson's Comprehensive Analytical Chemistry*, edited by Y. Picó, 51(10):307-338. New York: Elsevier.
7. Love, D.C., R.U. Halden, M.F. Davis, K.E. Nachman. 2012. "Feather Meal: A Previously Unrecognized Route for Reentry into the Food Supply of Multiple Pharmaceuticals and Personal Care Products (PPCPs)." *Environmental Science and Technology* 46(7):3795-3802, — "Response to Comment on Feather Meal: A Previously Unrecognized Route for Reentry into the Food Supply of Multiple Pharmaceuticals and Personal Care Products (PPCPs)." *Environmental Science and Technology* 46(23):13026-13027 — "Response to Comment on Feather Meal: A Previously Unrecognized Route for Reentry into the Food Supply of Multiple Pharmaceuticals and Personal Care Products (PPCPs)." *Environmental Science and Technology* 46(24):13557-13558.
8. Hofacre, C.L. 2012. "Bloomberg chicken study is flawed." *The Baltimore Sun*. http://articles.baltimoresun.com/2012-04-24/news/bs-ed-chicken-study-letter-20120424_1_peer-review-chicken-samples.
9. Bland, M. 2012. "Comment on Feather Meal: A Previously Unrecognized Route for Reentry into the Food Supply of Multiple Pharmaceuticals and Personal Care Products (PPCPs)." *Environmental Science and Technology* 46(24):13555-13556.
10. Kelly, J.B. 2012. "Comment on Feather Meal: A Previously Unrecognized Route for Reentry into the Food Supply of Multiple Pharmaceuticals and Personal Care Products (PPCPs)." *Environmental Science and Technology* 46(23):13024-13025.
11. Sindt, G.L. 2006. "Environmental Issues in the Rendering Industry." In *Essential Rendering: All About the Animal By-Products Industry*, edited by D.L. Meeker, 251. Arlington, Virginia: National Renderers Association.
12. Englert, B.G. 2007. *EPA Method 1694: Pharmaceuticals and Personal Care Products in Water, Soil, Sediment, and Biosolids by HPLC/MS/MS*. US Environmental Protection Agency, 1-72.
13. Food and Drug Administration. 2014. "Protecting and Promoting Your Health." *Code of Federal Regulations* Title 21, Chapter I, Subchapter E, Part 556 Tolerances for Residues of New Animal Drugs in Food.
14. Baron, P.A.; D.C. Love, K.E. Nachman. 2014. "Pharmaceuticals and personal care products in chicken meat and other food animal products: A market-basket pilot study." *Science of the Total Environment* 490:296-300.

Know someone who should be receiving Render? If so, then pass along the FREE subscription card between pages 12-13.

Grease Handling Equipment

Powder Coat Paint & Steel Lid Systems

Containers

- 100 to 400 gallon
- Poly or steel lids
- Pressure tested
- Powder coat

Options

- Bolt-in screens
- Lid locks & more

Par-Kan
C O M P A N Y

800-291-5487 • www.par-kan.com • Silver Lake, IN

The Perils of PPE – Are You Prepared?

Editor's note – Mark A. Lies II is a partner with the Chicago, Illinois, law firm of Seyfarth Shaw LLP. He specializes in products liability, occupational safety and health, workplace violence, construction litigation, and related employment litigation.

Patrick D. Joyce is an attorney in the Environmental, Safety, and Toxic Tort Group at Seyfarth Shaw focusing on occupational safety and health, environmental litigation, environmental counseling, and construction litigation. Legal topics provide general information, not specific legal advice. Individual circumstances may limit or modify this information.

Since 1974, the Occupational Safety and Health Administration (OSHA) has had regulations that require employers to provide personal protective equipment (PPE) to employees for their eyes, face, head, and extremities, as well as protective clothing, respiratory devices, and protective shields and barriers. The employer determines what PPE is required through a “hazard assessment” that must be in writing. In addition, the employer is required to ensure that employees actually use PPE when exposed to the hazard and that the PPE be maintained in a sanitary and reliable condition so that it functions as intended. Throughout the history of the regulations, there have been ongoing disputes between employers and OSHA over “when” an employer needs to perform a hazard assessment. For example, does an employer need to conduct a hazard assessment for each individual worksite or can it do one “global” assessment for multiple worksites? In addition, there is often the question of what is required for a hazard to be significant enough to require the use of PPE. For example, are employees exposed to a hazard for a sufficient amount of time and degree for PPE to be required? Is there sufficient data in terms of actual experience with injuries or illnesses experienced at the workplace (or within the employer’s industry) to support the need for PPE?

This article discusses a recent Occupational Safety and Health Review Commission (OSHRC) decision, *Sec’y of Labor v. Wal-Mart Distrib. Ctr. No. 6016*, OSHRC Docket No. 08-1292 (April 27, 2015), outlining when an employer can and cannot conduct or rely upon a “global” hazard assessment for PPE in the workplace as well as when a hazard is significant enough that it requires the use of PPE.

Employer Duty to Conduct PPE Assessment

OSHA regulations have long required an employer to conduct a hazard assessment to determine if hazards are present, or likely to be present, which necessitate the use of PPE (*Code of Federal Regulations* (CFR) Title 29, Part 1910.132(d)(1)). Employers must conduct a broad assessment of the various aspects of the worksite to determine whether process or environment, chemical, radiological, or mechanical irritant hazards may be present and likely to be encountered in a manner capable of causing injury or impairment to the body through absorption, inhalation, or physical contact.

This assessment requirement has existed since 1994 and employers are subject to citation for failure to perform the assessment. Many employers are unaware there is a requirement for an initial written certification that such hazard assessment has been performed (29 CFR 1910.132(d)(2)), which OSHA will request if an inspection is conducted involving PPE compliance and will cite as a violation if it is not forthcoming. There is also a requirement for a second written certification by the employer that it trained employees in how to use the PPE and that the employees “understood” the training (29 CFR 1910.132(f)(2)).

Where a Hazard Assessment Must Be Conducted

For employers with multiple worksites, it is often asked whether a hazard assessment must be conducted for each individual worksite or if a “global” assessment is sufficient. The answer is: it depends. *Sec’y of Labor v. Wal-Mart Distrib. Ctr. No. 6016* discusses the requirements for an employer to be able to use a “global” hazard assessment for compliance.

OSHA cited a Wal-Mart distribution facility in New Braunfels, Texas, for not having conducted a PPE hazard assessment under 29 CFR 1910.132(d)(1). The company operates nearly 120 distribution facilities similar to the New Braunfels facility nationwide. The company argued it did not need to conduct a hazard assessment at its New Braunfels facility because it had completed a hazard assessment at its Searcy, Arkansas, facility and the company’s distribution centers across the country were sufficiently similar that the Searcy hazard assessment could act as a “global” assessment for all distribution facilities.

OSHA, on the other hand, argued that the language of 29 CFR 1910.132(d)(1) requires a hazard assessment at each individual worksite unless the employer verifies that the work conditions at its facilities are equivalent.

The administrative law judge agreed with OSHA’s interpretation and the OSHA Review Commission affirmed his decision, finding that the company’s reliance on the Searcy hazard assessment for New Braunfels misapplied the requirements of the standard. The company was relying on “physical uniformity” among all distribution centers, but the review commission said that the standard does not address workplace layout, it addresses employee work conditions. Further, the preamble to 29 CFR 1910.132(d)(1) indicates that the hazard assessment needs to take into account the “hazards that are likely to be present at particular workplaces” and that the written certification required under 29 CFR 1910.132(d)(2) states the employer must identify the individual workplace evaluated.

The review commission found that the company’s after-the-fact assertion that the New Braunfels and Searcy distribution centers had similar work conditions was not a defense. The review commission held that the verification of the equivalency of work conditions needs to take place as part of the initial hazard assessment for each individual facility.

When a Hazard is Serious Enough to Require PPE

Wal-Mart was also cited for an alleged failure to provide PPE to protect employees who worked as “order fillers” at the New Braunfels distribution center. The order fillers label merchandise and unload it from wooden pallets stacked on multi-level module shelves, working 10-hour shifts to separate the contents of the pallets onto conveyor belts and ultimately into boxes to be sent out to company stores. OSHA alleged that order fillers were exposed to eye hazards from wood chips and debris from damaged pallets as they slide forward within the module storage shelves. According to OSHA, the wood chips and debris would fall through metal slats in the shelves, potentially striking the order fillers in the eyes and face. OSHA also alleged that dust from the pallets could irritate the order fillers’ eyes.

To establish a PPE requirement, a hazard must be present. Therefore, OSHA’s initial burden is to establish that the employer had actual or constructive “notice” of the risk, that is, a reasonably prudent employer would recognize a hazard requiring the use of PPE in this particular work activity. Industry practice and custom can aid in determining whether PPE should be required in a particular circumstance, though it is not the only determining factor.

The company argued that it was not “on notice” of the risk to the order fillers because the recorded eye/face injuries relied upon by OSHA to issue the citation were “infrequent and incidental” and thus a reasonable person would not have known that PPE was required. OSHA was only able to prove that three order filler injuries at New Braunfels were related to debris and dust from pallets striking an order filler in the face or eyes. The company calculated an injury incidence rate of 0.32 percent.

The review commission agreed that such statistical information was important in determining whether the company was put “on notice” of the potential for injuries and the need for PPE. While the review commission did not endorse the methods the company used to determine its injury rate of 0.32 percent, it did find that because there were only three eye/face injuries to order fillers over two years in an order filler population of 60 workers, there

was not sufficient evidence to show Wal-Mart had either actual or constructive knowledge of the need for PPE. As a result, the citation was vacated.

Potential Civil and Criminal Liability

This decision does not mean an employer has to provide different PPE for each individual facility or even conduct a full hazard assessment for individual facilities. It does mean that if an employer wishes to rely on a “global” or even “regional” hazard assessment, the employer must conduct an equivalency investigation as part of the initial hazard assessment for each individual facility. Equivalency does not only mean that the physical layout of facilities are the same, it also means the work practices and work conditions are similar. If the employer can verify that work conditions between multiple worksites are equivalent, use of a “global” hazard assessment will be permissible, and the employer does not need to prepare an individual hazard assessment at that facility.

This decision also means that employers may use statistical arguments regarding actual experience with injuries and illnesses to rebut OSHA’s findings that the employer was “on notice” that there was a potential for injuries and that PPE was required. This is especially beneficial for very large employers where correlation of types or categories

of injuries to specific tasks or groups may be difficult.

In the event OSHA issues a citation to an employer relating to PPE, it can take two forms. There are civil citations against the employer for regulation violations ranging from non-serious, up to \$7,000 in penalties, to repeat or willful, which can involve penalties up to \$70,000. In addition, there can be criminal liability if the PPE certifications referenced above are false. Criminal liability can be asserted against the employer as well as against the employee who created the false certification.

Since OSHA continues its focus on PPE compliance, employers must strengthen their compliance efforts.

1. Verify initial PPE hazard assessment and written certification, including a detailed description of how the determination was made that PPE was or was not required.
2. Verify equivalency of work conditions if a “global” hazard assessment is used.
3. Confirm employee training on the use of PPE and written certification.
4. Develop policies on issuance of PPE, use of employee-supplied PPE, inspection and replacement program for use of PPE, and discipline for loss or intentional damage to PPE. **R**

The **Shortening Shuttle**®
Waste Oil Carrier

Check out the NEW **Zeco®Eco**. The latest in Waste Oil Filtration, Transportation, Oil Resupply!

6 Models: **Shortening Shuttles**®

Order Fact. Authorized Parts ONLY!

800-533-5711 www.Shortening-Shuttle.com
Worcester Industrial Products Corp.

Mark Your Calendar

August

8th Annual Waste Conversion Technology Conference and Trade Show
August 17-19, San Diego, CA • www.wasteconversionconference.com

September

8th Annual Aboveground Storage Tank Conference and Trade Show
September 16-17, Galveston, TX • www.nistm.org

5th International Symposium on Animal Mortality Management
September 28-October 1, Lancaster, PA • www.animalmortmgmt.org

2015 Feed and Pet Food Joint Conference
September 29-October 1, Columbus, OH • www.ngfa.org

October

Poultry Protein and Fat Seminar
October 1-2, Nashville, TN • www.uspoultry.org

American Fats and Oils Association 2015 Annual Meeting
October 7-8, New York City, NY • www.fatsandoils.org

National Renderers Association 82nd Annual Convention
October 19-23, Laguna Niguel, CA • <http://convention.nationalrenderers.org>

November

American Oil Chemists' Society Oils and Fats World Market Update
November 12-13, Dublin, Ireland • <http://worldmarket.aocs.org>

Canadian Bioeconomy Conference
November 30-December 2, Vancouver, BC, Canada • <http://greenfuels.org>

Log on to www.rendermagazine.com for a complete listing of industry meetings.

Biofuels *Continued from page 24*

and gasoline fuel use to alternative fuels by the end of 2017. UPS had previously announced a goal of driving one billion miles with its alternative fuel and advanced technology vehicles by that same time as part of the company's strategy to reduce the carbon emissions impact of its fleet.

"We have used more than three million gallons of renewable diesel to date with positive results," said Mark Wallace, UPS senior vice president, global engineering and sustainability. "Renewable diesel can be easily 'dropped in' to our fuel supply chain without modifications to our existing diesel trucks and equipment." UPS has been using renewable fuels for more than a year in trucks operating in Texas and Louisiana. The new agreements provide expanded use across the United States and potentially in parts of Europe.

Neste, headquartered in Espoo, Finland, is the world's largest producer of renewable diesel from a variety of feedstocks including more than half from waste and residues. REG, based in Ames, Iowa, produces renewable hydrocarbon diesel fuel from waste vegetable oils and animal fats at its Geismar, Louisiana, biorefinery. Solazyme, located in San Francisco, California, produces a blended fuel made from microalgae and other renewable feedstocks. **R**

ALUMINUM TRAILERS
BUILT WITH PRIDE TO LAST FOR
YEARS OF DEPENDABLE SERVICE

Extruded Hollow Wall Construction • Spring or Air Suspension • Heavy Duty Hydraulics
Leak Proof Gates! Two Point Controls • Compartments for Material Separation
2 & 3 25,000 LB Axles • Lift Axles, Hydraulic Lid & Hitch Options

ARTEX

CALL 888.644.2893 TO ORDER
REDWOOD FALLS, MN - ARTEXMFG.COM

5th International Symposium
Managing Animal Mortalities, Products,
By-products & Associated Health Risks:
Connecting Research, Regulations & Responses
September 28 - October 1, 2015
Lancaster, Pennsylvania
animalmortmgmt.org

INSTITUTE FOR INFECTIOUS ANIMAL DISEASES
In collaboration with world-wide academia, industry and government partners.

This event was made possible with funding from the Department of Homeland Security, Science & Technology Directorate.



Outstanding sponsorships for NRA's Annual Convention are still available.

The time to act is now!

Recognition of our esteemed sponsors doesn't occur solely during convention. From the moment you commit, your company logo is added to our convention website and linked to your corporate site. Additionally, *Render* magazine will feature all of our convention sponsors and exhibitors in its October issue, with full company descriptions. But time is running out!

From receptions, special events and business sessions... to registration gifts or state-of-the-art convention communication tools, excellent sponsorships are still available. Secure your sponsorship or tabletop exhibit space today by contacting Marty Covert, NRA Convention Coordinator at 703. 754. 8740 or co@martycovert.com. To learn more and register, please visit us at www.convention.nationalrenderers.org.



NATIONAL RENDERERS ASSOCIATION • ANNUAL CONVENTION
THE RITZ-CARLTON • LAGUNA NIGUEL, CALIFORNIA
OCTOBER 19-23, 2015

AFIA Names Starkey Member of the Year

The American Feed Industry Association (AFIA) has named Charles Starkey, PhD, of Balchem Animal Nutrition and Health, its Member of the Year. The award is presented to an AFIA member who exhibits the utmost support throughout the year to help the organization achieve its goals and objectives. With the exception of the 83 members of the Food Safety Modernization Act work group who received the award in 2014, only 33 individuals have previously been recognized.

Starkey guest lectured at AFIA's 2012 and 2014 Feed Industry Institutes where he presented on "Animal Proteins and Use of Antioxidants" and the 2015 Pet Food Conference where he discussed why research is essential in the animal protein business. Starkey currently serves on AFIA's feed regulatory, ingredient approval and definition, international trade, and food member interest groups, regularly attends committee meetings, and serves as the liaison between the feed, pet food, and rendering industries.

Starkey is the former director of technical services at American Proteins Inc. He holds a bachelor of science and a masters of science from Arkansas State University as well as a doctor of philosophy from Kansas State University.

Growth for Canadian Pet Food Market

In 2014, strong pet food sales, continued humanization trends, and rising interest from pet owners in non-medical services all aligned to produce the highest growth for the Canadian pet market in the last five years, according to the 2015 edition *Canadian Pet Market Outlook*. A sluggish veterinary services category stood in stark contrast, with its continued decline in visits by pet owners. Continued uptake of premium and super-premium products of non-medical pet services will drive sales in the Canadian pet market to \$9.2 billion in 2019, states the report.

With a primary focus on products for dogs and cats, but also extending to other types of small companion animals, the report includes a historical (2009-2014) and forecasted (2015-2019) analysis of all pet food product and service sales, as well as a breakout of the pet food, pet products, veterinary services, and non-medical pet services categories. The report also analyzes key trends affecting the marketplace, trends driving growth, and consumer demographics.

Information in the report, available at www.packagedfacts.com, is based on interviews with companies, distributors, and retailers about new product and packaging trends, marketing programs, distribution methods, and technological breakthroughs. Additional data was gathered from relevant sources, including consumer and industry publications, newspapers, government reports, company literature, and corporate annual reports.

NRA President Named to Trade Committee

National Renderers Association (NRA) President and Chief Executive Officer Nancy Foster has been appointed to the United States Department of Agriculture's (USDA's) Agricultural Policy Advisory Committee (APAC) until June 2019.

Foster joined NRA as president in December 2013 and has an extensive background in agriculture trade policy stemming from her responsibility for international policy matters as vice president of the American Soybean Association and president and chief executive officer of the U.S. Apple Association. Approximately 20 percent of US rendering production is exported.

Congress established the advisory committee system in 1974 to ensure a private sector voice in establishing US agricultural trade policy objectives to reflect US commercial and economic interests. APAC provides advice and information to the Secretary of Agriculture and US Trade Representative on the administration of trade policy, including enforcement of existing trade agreements and negotiating objectives for new trade agreements.

Conestoga-Rovers is now GHD

GHD and Conestoga-Rovers and Associates (CRA) have completed a merger first announced in July 2014, with the CRA family of companies adopting the GHD name and brand. The merger has created one of the world's leading privately-owned engineering, environmental, and construction service companies, with more than 8,500 employees globally, almost half of those in the United States and Canada. GHD is a professional services company in the global markets of water, energy and resources, environment, property and buildings, and transportation.

ACREC Professor Passes

Dr. Ashby "Budd" Bodine II, 67, professor and department chair emeritus of Clemson University's Department of Animal and Veterinary Sciences, passed away in June after a battle with cancer. He worked at Clemson University for over 45 years and assisted in the development of the Animal Co-Products Research and Education Center (ACREC).

Bodine was a renowned teacher and researcher who passionately cared for his students. Among his many accomplishments, Bodine received the Gamma Sigma Delta Outstanding Teacher Award and the Outstanding Teacher Award from the National Association for Colleges and Teachers of Agriculture. He is survived by his wife, two children and their spouses, and five grandchildren. A scholarship fund has been created in his name and memorial contributions may be made to the Clemson University Foundation-Dr. Ashby B. Bodine II Scholarship Endowment, and mailed to Clemson University, attention Joni Jordan, College of Agriculture, Forestry and Life Sciences, 104 Poole Agricultural Center, Clemson, SC 29634, or made online at cualumni.clemson.edu/give/ashby-bodine.

H.J. Baker Building New Kansas Facility

H.J. Baker is expanding its Animal Health and Nutrition division, breaking ground on a new multi-million dollar amino acid encapsulation facility in Emporia, Kansas. The new 13,000-square-foot facility will include offices, a warehouse, and a processing floor, and could begin production as early as March 2016.

JBS Buys Cargill Pork Business

JBS USA Pork has entered into an agreement with Cargill to acquire the company's United States (US)-based pork business for \$1.45 billion. Subject to regulatory review and approval, the acquisition includes two Cargill Midwest meat processing plants, one in Ottumwa, Iowa, and the other at Beardstown, Illinois. Both plants were acquired by Cargill in 1987 and processed 9.3 million hogs in 2014. The purchase by JBS also includes five feed mills (two in Missouri, one each in Arkansas, Iowa, and Texas), and four hog farms (two in Arkansas and one each in Oklahoma and Texas).

JBS USA is an indirect, wholly-owned subsidiary of JBS S.A. in Brazil. JBS first entered the US pork market with the acquisition of Swift & Company in 2007 and has steadily grown since.

Separators Names New President

Separators Inc. has promoted Steve Dohm to president and chief executive officer. He replaces John Campbell, who announced his plans to retire earlier this year. Campbell and his partners sold Separators to Alfa Laval in 2011.

Separators is a leading centrifuge service provider in North America specializing in the remanufacturing of Alfa Laval, Tetra Pak, and GEA centrifuge equipment.

Letters

Dear Editor,

You have been sending me *Render* magazine for some years now but I have now retired completely from veterinary work and have moved from Burpham, Guildford, United Kingdom, to Devon. Please stop sending the magazine as of now.

I thank you for your past services and congratulate you on the quality and value of the publication. As a veterinarian much involved here and in the United States with bovine spongiform encephalopathy in former years, I found the articles and news most useful.

I knew many of the officers in the National Renderers Association and Fats and Proteins Research Foundation, including Don Franco whom I knew well. I am pleased to see he has been remembered by the founding of a medal in his name. I am sorry to read of the passing of Denis Griffin and Mark McMahon.

Best wishes for the future.

Ray Bradley, FRCVS
United Kingdom

Centrifuge Chicago Corporation

• Balancing • Centrifuge Parts • Repairs

Disassembled, cleaned, inspected, and repaired to bring the centrifuge back to specification.

Other services available include field service, technical service, rebuild, buy, sell, and upgrade on all types of makes and models of centrifuges.



www.centrifugechicago.com
(219) 852-5200

*Innovative Products
that Protect Your
Investment*

~Steel Lids

~Enclosed Tanks

~EZ Install Fold Lids



ONKEN
INCORPORATED

www.onkens.net

309.562.7271

EQUIPMENT/SERVICES

WW Sludge / Brown Grease?

Patents to process wastewater sludge or DAF grease into value-added non-oily dry products.
www.rigeltechcorp.com/daf

ALFA LAVAL MOPX 207 OIL PURIFIER with AUTO CONTROLS
Not used since reconditioning.
10 HP, 220/480V/3PH/60HZ, new ABB TEFC motor. 32 gpm max hydraulic capacity on water. Photos and details available. \$22,000
Contact Dave (704) 497-0445

Ottinger Machine Co. Inc.
Line of MIGHTY SAMSON HAMMER MILLS
invites you to take a look at
www.ottingermachine.com

Used and Rental Boilers

Used for Sale to 75,000 PPH
Rental Boilers to 70,000 PPH
Complete Retube Service Nationwide
See www.McCainEngineering.com
Sales@McCainEngineering.com
Toll Free (888) 662-0123

FOR SALE - Westfalia Desludger
Centrifuge-Clarifier with self-cleaning bowl. SA-60-06-177.

Have manuals and all tools for the 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

MOVING??

Update your subscription at
www.rendermagazine.com/subscribe

Or send old/new address to:
P.O. Box 1319
Camino, CA 95709-1319
Fax: (530) 644-8429

POSITIONS AVAILABLE

Vacancy on California Rendering Industry Advisory Board

The California Department of Food and Agriculture (CDFA), Meat, Poultry and Egg Safety (MPES) branch has two vacancies on the voluntary member Rendering Industry Advisory Board for a term of 36 months. The board makes recommendations to CDFA's Secretary on all matters pertaining to the MPES Rendering Program including:

- Adoption, modification, and repeal of regulations and procedures
 - Procedures for employment, training, supervision, and compensation of inspectors and other personnel
 - Rate and collection of license fees and penalties
 - Acquisition and use of equipment
 - Posting and noticing changes in by-laws, general procedures, or orders
 - All matters pertaining to Food and Agricultural Code Division 9, Part 3, Chapter 5, including, but not limited to, the inspection and enforcement program, annual budget, necessary fees to provide adequate services, and regulations required to accomplish the purposes of the chapter.
- Applicants must be a licensed renderer, collection center, or registered transporter of inedible kitchen grease. Board members receive no compensation but are entitled to reimbursement for transportation to and from meetings and for per diem expenses for lodging, meals, and incidental expenses. Individuals interested in being considered for an RIAB appointment should send a brief resume by August 24, 2015, to the California Department of Food and Agriculture, Meat, Poultry and Egg Safety Branch, 1220 N Street, Sacramento, California 95814,
Attention: Dr. Doug Hepper

For more information, visit the MPES website at www.cdfa.ca.gov/ahfss/mpes/index.html, or contact Dr. Hepper, MPES branch chief, at (916) 900-5004, by fax (916) 900-5334, or e-mail douglas.hepper@cdfa.ca.gov

Advertisers

Anco-Eaglin Inc.	9
Artex Mfg.	36
Baker Commodities Inc.	Back cover
Centrifuge Chicago Corporation	39
Cen-Tex Centrifuge LLC	7
Dupps	3/Inside back cover
GHD	5
Haarslev Inc.	1/19
Harburg-Freuderberger Maschinenbau	15
Industrial Steam	5
Institute for Infectious Animal Diseases	36
Kemin Industries Inc.	2
Lock America Inc.	27
Novus International Inc.	21
Onken Inc.	39
Par-Kan Company	33
Travis Body and Trailer Inc.	23
Walinga Engineered Transportation Equipment	25
West Coast Reduction Ltd.	Inside front cover
Worcester Industrial Products Corp.	35



*"We're committed to the customer,
every hour of every day."*

**Larry Tully, Field Service Manager, (far left)
and the Field Service Team.**

Dupps Field Service

The Dupps family includes all the dedicated and hard working employees whose efforts, loyalty and pride have made our company the best in the business. Compare our level of knowledge, experience and service—we're sure you'll agree that Dupps is your best choice.



"For us, the bottom line is to be there when our customers need us. They operate Dupps equipment because it offers top performance and reliability; and it's our job to keep it that way . . . any time, day or night.

"Every minute of downtime costs money, so it's our policy to have a service representative ready to work at a customer's plant in 24 hours or less. That's why we maintain the largest service department in the business, with the right tools and parts to do the job.

"Every representative knows Dupps equipment inside and out, so we do the job right as well as quickly. Experience pays off in other ways too — we can help make sure equipment is properly maintained so it operates at peak performance, and to avoid expensive repairs down the road.

"Our motto is 'Dupps won't let you down'; for our team that means we're committed to the customer, every hour of every day."

**Explore Dupps
systems, service & support**
www.dupps.com • (937) 855-6555



The Dupps Company • Germantown, Ohio • U.S.A.

KEEPING THE PLANET CLEAN FOR GENERATIONS TO COME



Protecting communities and the environment since 1937

Baker Commodities Inc.

Recycling for Life

Corporate Office: 323-268-2801

www.bakercommodities.com