



The National Magazine of Rendering

June 2008

# Render

## FDA Unleashes New Feed Rule

Renderers face  
challenges ahead

## Renderers Vow to Remain Proactive

After feed rule is finalized  
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# RENDER

The National Magazine of Rendering

Editorial copy, advertising material,  
and subscription inquiries should  
be sent to:

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Sierra Publishing

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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 rendering industry.  
It is intended to provide a vehicle for  
exchange of ideas and information  
pertaining to the rendering and the  
associated industries. RENDER is  
distributed free of charge to qualified  
individuals upon written request.

Publisher reserves the right to  
determine qualification. Periodical  
postage paid for at Camino, CA, and  
additional mailing offices.

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POSTMASTER: Send address  
changes to RENDER, P.O. Box 1319,  
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## Hate to Say We Told You So, But...

Throughout the two-and-a-half-year “education process” that’s been the National Renderers Association (NRA) lobbying in Washington, DC, on the proposed Food and Drug Administration (FDA) feed rule, NRA stuck to the cold, hard facts. They laid out independently gathered and crunched numbers, showed impact, and met with the folks at the Office of Management and Budget (OMB) to show pictures of what an abandoned cow looks like after a few days in the sun, just to make sure the OMBers knew exactly what the rendering industry would have to deal with if the feed rule as proposed in October 2005 went forward.

The coordinated NRA effort worked well. It was the initial submission to FDA of the NRA-sponsored Informa Economics report – and its numbers showing real-world impact – that forced the agency to go back and do modern math in its estimate of industry impact. NRA then caught wind of a move by the U.S. Special Trade Representative’s (USTR’s) office to try and use the feed rule as a bargaining chip to close the beef deal with South Korea. NRA

coordinated a January 30, 2008, letter to the White House, OMB, USTR, U.S. Department of Health and Human Services/FDA, and the U.S. Department of Agriculture (USDA) – signed by 12 national organizations with a stake in the rulemaking – telling these federal offices that the economic forces at work in the marketplace and the overall near-nonexistent U.S. bovine spongiform encephalopathy (BSE) risk situation argue against finalizing the proposal.

During discussions with USTR principals, it was pointed out politely, and more than once, that the feed rule was not the end game in getting a Korean beef deal. The feed rule, it was suggested, was likely being used by the Koreans as just the latest hoop through which the United States needed to jump to sell American beef in Seoul supermarkets. It was also pointed out – on more than one occasion – that even if the final U.S. feed rule was published, it was likely – if not expected – that the Koreans would find other reasons not to take U.S. beef. USTR turned a deaf ear, arguing that it was not “pushing” the feed rule, but if it

was ready to be published, well then ... Well, you get the drift.

And, as everyone knows, the FDA final feed rule was published April 25, 2008 (see “FDA Unleashes New Feed Rule” on page 10).

Flash forward to May 7th and reports from Seoul that Korean President Lee Myung-bak said Korea will suspend U.S. beef imports “if imported meat poses a threat to the health” of Korean shoppers. That same day, Korean Agriculture Minister Chung Woon-chun said of the U.S. beef agreement, “If agreements with other countries [Japan, China, and Taiwan] are more advantageous to importers, Seoul will call for new talks.”

Jump to May 12th and the announcement out of Seoul that it’s delaying dispatching the Korean inspectors who have to inspect U.S. beef plants to ensure we know what we’re doing before we ship to Korea. Apparently, farmer protests and the threat of a lawsuit in Korea to stop resumption of U.S. beef trade are actually affecting the thinking of Korea’s leaders.

So much for that “critical” FDA feed rule. We hate to say we told you so.

### Farm Bill Finalized?

Senator Tom Harkin (D-IA), chair of the Senate Agriculture Committee, likened the 2008 farm bill process to “passing a kidney stone.” Other members of the House/Senate conference committee stare blankly when asked if they enjoyed the farm bill experience. As they say, there are two processes you should never watch – sausage making and legislation. The gestation and birth of this farm bill gives credence to that adage.

The expanded energy title survived the machinations of getting programs and dollars balanced to meet the demands of congressional budgeteers. Here are the highlights:

- Authorization of \$320 million for loan guarantees to help develop and build commercial, advanced biofuel production plants.

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- Setting aside \$118 million for mandatory research of cellulosic ethanol under the Biomass Research and Development Act. There is also establishment of a new Forest Bioenergy Program on the use of wood biomass for energy production.

- The Commodity Credit Corporation (CCC) Bioenergy Program is preserved at \$60 billion per year for five years, and will provide incentives to use agriculture products – except corn – along with ag and forestry waste for biofuels.

- A new Biomass Crop Assistance Program is created to provide incentives for producers to grow cellulosic energy crops. There's \$70 million for 2009-2012 to pay for the program.

- Mandatory funding of \$1 million reauthorizes the biodiesel fuel education program.

- Reauthorization and funding of \$250 million for five years the Rural Energy for America Program, providing loans, loan guarantees, and grants for farmers and ranchers to purchase and install on-farm renewable energy systems.

- There's a new Feed Flexibility Program for bioenergy producers under which USDA is required to buy surplus sugar for bioenergy production to prevent forfeitures of sugar to the CCC, and to ensure the federal sugar program is operated at no cost to the federal government.

- The federal biobased products procurement program is reauthorized.

Here's an interesting farm bill factoid. When you cut through the smoke and mirrors that surround the 2008 farm bill deal, all the chest pounding and bloviating over farm programs and payments aren't all that compelling when you figure that of the \$610 billion the new farm bill will cost over the next 10 years, nearly 74 percent of those federal dollars will be spent on nutrition programs, and only 16 percent will be spent on farm payment programs. Nutrition for the purposes of the farm bill includes federal food stamps; women, infants, and children nutrition programs; and various other domestic and international food assistance programs. You can thank House Speaker Nancy Pelosi (D-CA) and Representative Charlie Rangel (D-NY), chair of the House Ways and Means Committee, for the shift in spending priorities. **R**

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# Newsline

## “Sustainability” Reports are a Growing Trend

While all companies are focused on the economics of their business, a growing number are also monitoring their social and environmental performance. Two large food companies recently released “sustainability” reports that are sure to be just the beginning of a growing trend.

In late March, Tyson Foods, Inc., released a 64-page “corporate responsibility” publication titled “Sustainability – It’s in Our Nature,” which outlines the company’s economic, social, and environmental efforts, something Tyson officials call their “triple bottom line.”

“We believe sustainability is essentially doing the right thing, whether it involves protecting natural resources, creating alternative energy, or feeding the hungry,” said Richard L. Bond, president and chief executive officer of Tyson Foods. “It’s our hope the new report will show how sustainability is a natural outgrowth of Tyson’s core values and how we strive to take ethical and social responsibility in the way we do business.”

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■

**“We believe  
sustainability is  
essentially doing the  
right thing...”**

**Richard L. Bond, Tyson**

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■

This is the second time a comprehensive overview of the company’s corporate responsibility efforts has been compiled in one report. Tyson’s first report, titled “Living Our Core Values,” was issued two years ago.

The new sustainability report covers fiscal reporting years of 2006 and 2007, and addresses a wide variety of topics, from ethics, environmental protection, and resource conservation, to worker safety and health, food safety, and animal well-being. It also highlights Tyson’s efforts in new product development, renewable energy, community involvement, and hunger relief.

The report lists some of the company’s sustainability goals, such as:

- reducing its water usage by 15

percent per pound of finished product over the past two years and implementing additional water conservation measures in fiscal year 2008;

- producing up to 250 million gallons of renewable fuel annually from animal fat within the next three to four years through alliances with other companies; and

- donating at least 10 million pounds of protein over a three year period beginning in 2006 to America’s Second Harvest – The Nation’s Food Bank Network.

Less than a month after Tyson released its report, Seaboard Foods made public its sustainability and stewardship report, the company’s first. The 28-page document, titled “Sustainability and Stewardship: Our never-ending commitment,” provides information about the company’s six key core commitments to quality, customers, employees, community, animal care, and environmental stewardship. Rod Brenneman, president of Seaboard Foods and High Plains Bioenergy, distributed the first copies of the report to those attending the ribbon-cutting for the High Plains Bioenergy biodiesel plant. The 30 million gallon per year facility sits next to Seaboard’s pork processing plant in Guymon, OK, and uses the processing plant’s pork fat to make biodiesel.

“From the very beginning in the early 1990s, Seaboard Foods has strived to be a good corporate citizen while building a sustainable company for our customers, employees, and communities,” Brenneman said. “The biodiesel plant is one of the higher profile sustainable business practices that’s part of the Seaboard Foods integrated system. However, the report highlights the many activities and practices that occur each day and demonstrates our never-ending commitment to sustainability and stewardship.”

Corporate citizenship and sustainable

## Consumers Confident in Food Safety

A newly released report shows that consumers are confident in the safety of the food they buy at supermarkets, but that confidence is fragile.

According to the Food Marketing Institute (FMI) U.S. Grocery Shopper Trends 2008 report, 81 percent of consumers are confident in the food they purchase at the store, up from an 18-year low of 66 percent last year. However, only 11 percent are “completely confident,” down from 15 percent in 2007, while 70 percent are “somewhat confident.” Consumer confidence in the safety of restaurant food increased to 65 percent, up from 43 percent in 2007.

Consumers remain uneasy about eating products derived from cloned animals. The report states as many as 77 percent are not comfortable, including 44 percent who are “not at all comfortable” – up significantly from 61 percent and 31 percent, respectively, in 2007. More than eight in 10 consumers (81 percent) believe cloned foods should be labeled as such. In fact, nearly six in 10 (58 percent) hold this view “strongly.”

The report also states that higher fuel and food costs and other economic pressures are having a pervasive impact on how consumers shop, cook, and dine. Americans are cooking at home more and eating out less often at restaurants (71 percent). In fact, families eat their main meal at restaurants only 1.2 times per week, down from 1.3 in 2007, and 1.5 in 2006.

The complete report is available on FMI’s Web site at [www.fmi.org](http://www.fmi.org). **R**

*Continued on page 29*



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# FDA Unleashes New Feed Rule

## Renderers Face Challenges Ahead

By David L. Meeker, PhD, MBA

Vice President, Scientific Services, National Renderers Association

**A**fter battling a proposed rule for two-and-a-half years using science, economic studies, and logic, the rendering industry was told in April that new rules for animal feed must be implemented to finalize a South Korean deal on beef trade. The Food and Drug Administration (FDA) offered this somewhat circular argument: “While the prevalence of BSE [bovine spongiform encephalopathy] in the United States is very much lower than in European countries with BSE, evidence from the European experience has demonstrated that, in countries with a high level of circulating BSE infectivity, measures on only ruminant feed were not sufficient to eliminate all transmission of BSE.” The National Renderers Association (NRA) had argued that the minute amount of risk reduction was not worth the high cost to the meat industry, renderers, and livestock producers.

The rule, first proposed in 2005 and made final with publication in the *Federal Register* on April 25, 2008, is designed to further reduce the risk of spreading BSE among U.S. cattle, according to FDA, which received more than 840 comments on the proposal. However, what is clear to one group is often difficult for others to see – what is scientifically obvious to one group is not to others – and what is economically important depends on what one is selling. Many comments on the proposed rule complained that it did not “go far enough” in contrast to the NRA position. FDA paid considerable attention to NRA comments and the commissioned analysis by Informa Economics in 2005. FDA believes they struck a reasonable balance between leaving the 1997 feed rule in place as is and restricting much more material as some advocated.

The rendering industry learned of the rule becoming final during the NRA spring meeting in Montreal, Canada. One silver lining was the fact that the industry was able to meet immediately to set a strategy and respond in a unified way. Acknowledging that the industry had fought a good fight but lost, renderers once again demonstrated their leadership and responsibility by planning to fully comply and work with FDA to make the transition smooth. However, renderers will keep all options open, including legal action, if the details prove unenforceable or unachievable. NRA will be holding meetings with FDA’s Center for Veterinary Medicine (CVM) to clarify requirements and to assist in writing detailed guidance on compliance and inspection procedures. For example, the industry needs to know specifically what FDA means by “effective removal” and how severe penalties may

be for mistakes. Now, the attention is in the details – if CVM follows through on its promise to cooperate in a pragmatic implementation of the rule, there probably will be no further opposition from the rendering industry.

The final rule will take effect April 27, 2009. The central point of the final regulation is a requirement that the brains and spinal cords be removed from all cattle 30 months or older before by-products from those animals can be processed into feed ingredients for any animal species (tallow can be used under certain conditions). Renderers will be required to develop, and make available for FDA review, written protocols for determining the age of cattle and demonstrating that brains and spinal cords from cattle 30 months and older have been removed “or otherwise effectively excluded from animal feed.” FDA’s new regulations are in addition to the 1997 feed rule that bans the use of ruminant-derived mammalian material in ruminant feed.

### New Requirements for Animal Feed

The final rule defines “cattle material prohibited from animal feed,” or CMPAF, prohibiting its use in *all* animal feed. CMPAF includes:

- brains and spinal cords from cattle not less than 30 months of age;
- entire carcasses of cattle not inspected (ante mortem) and passed for human consumption
  - unless shown to be less than 30 months of age, or
  - brain and spinal cord are removed;
- entire carcasses of BSE-positive cattle;
- tallow derived from BSE-positive cattle;
- tallow from CMPAF if containing impurities greater than 0.15 percent; and
- mechanically separated beef made from CMPAF.

Tallow for use in ruminant feed is more restrictive than in feed for non-ruminants:

- Tallow must be less than 0.15 percent insoluble impurities for ruminant feed.
- Tallow from CMPAF must have impurities less than 0.15 percent to be used in non-ruminant feed.
- Tallow not derived from CMPAF with impurities greater than 0.15 percent can be fed to non-ruminants; however, a de facto marketing requirement of impurities less than 0.15 percent may develop, particularly if the rule is misinterpreted.

## Materials Still Allowed in Feed

The final regulation continues to allow the following mammalian materials in all animal feed, including ruminant feed:

- blood and blood products;
- gelatin;
- tallow containing 0.15 percent or less insoluble impurities;
- inspected meat products that have been cooked and offered for human food and further heat-processed for feed (such as plate waste and used cellulosic food casings);
- milk products (milk and milk proteins);
- pork and equine protein; and
- poultry litter fed to ruminants.

## Burden Is on Renderers

Renderers will be required to develop written procedures that specify how the CMPAF is prevented from entering the feed system. These procedures are to be available to FDA for review and copying. These records are to include procedures, if any (operations processing strictly poultry or porcine will not need this documentation), being used by renderers to remove brains and spinal cords from cattle 30 months and older and other materials prohibited from use in all animal feed (such as the extremely rare BSE-positive cattle carcass and mechanically separated beef made from CMPAF). Renderers will need to use separate equipment while handling CMPAF once it's separated, and prevent CMPAF contact with animal feed, feed ingredients, or equipment surfaces. Renderers are to dye or otherwise mark CMPAF with an agent that is readily detectable during visual inspection. Renderers also are required to label CMPAF as follows: "Do Not Feed to Animals."

Further, renderers will be required to maintain sufficient records for at least one year and make them available to FDA upon request. The records must:

- demonstrate that material rendered for use in animal feed was not manufactured from, processed with, or does not contain CMPAF;
- demonstrate that establishments that supply cattle material to renderers have implemented adequate procedures to effectively exclude CMPAF. Supplier-related records kept by renderers are to include either:

(1) certification or other documentation from suppliers that the cattle material does not include CMPAF, including a description of segregation procedures used; or

(2) documentation of another method acceptable to FDA, such as third-party certification, for verifying that suppliers have effectively excluded CMPAF.

- track CMPAF to ensure they are not used in animal feed.

The proposed rule will place a serious economic burden on renderers who collect dead animals on farms. Only if a sufficient number of animals to justify the specialized equipment and labor needed to remove brains and spinal cords, and only in weather conditions cool enough to prevent rapid deterioration, will renderers be able to continue collection service. The high price of fat and the available option of fertilizer use of meal could spur development of "disposal" or non-feed rendering, but costs including high fuel prices and insufficient amounts of CMPAF material in many areas will hinder this innovation.

The economic variables continuously change and renderers are likely to continually re-evaluate to do as much as they can with as much material as possible.

NRA has urged FDA and other government agencies to address the potentially massive disposal problem from a decreasing deadstock hauling industry and other issues associated with animal disposal. Although FDA notes in the final rule that the costs are more than they originally estimated (somewhere between \$65 million and \$85 million), the agency is not charged with regulating disposal issues. NRA discussions with the U.S. Department of Agriculture and Environmental Protection Agency officials regarding this issue have been met with polite listening and expression of concern, but very little action.

## Impact on Beef Packing Plants

Beef packing plants must:

- identify means of disposing of CMPAF;
- develop procedures for segregating CMPAF from other offal; and
- provide certification to renderers that offal to be rendered for animal feed is free of CMPAF.

It is generally thought that the additional restrictions will have little impact on large beef packing operations slaughtering primarily fed cattle less than 30 months of age, but could cause some disruption in cull cow plants and small slaughter operations including their relationship with renderers. Slaughter operations of all sizes will need to provide supplier certification to renderers regarding CMPAF removal and could be facing higher disposal charges for that portion of their by-product stream.

## Requirements on Other Countries

The final rule allows countries to seek designation as not subject to the requirements of the final rule if they are "BSE free" or designated "negligible risk" by the World Organization for Animal Health, or OIE. On first blush, this may seem like an unnecessary consideration given that few countries actually have a lower risk than the United States. However, this should be considered as a pre-set path to get back to a more normal status once the United States obtains negligible risk status from the OIE, which should be in just a few years if no new BSE cases are discovered.

## Next Steps for FDA

FDA intends to work with renderers to develop guidance for industry. Hopefully, practical methods of demonstrating age of cattle, removing of brains and spinal cords from dead cattle, and acceptable documentation of procedures can be developed in partnership with industry representatives. FDA will need to develop new inspection procedures and provide training for federal and state inspection personnel if they intend to follow through on their intent to vigorously enforce the rule without serious industry disruption. **R**

*How will the new rule affect your business? Render welcomes your comments on this subject matter by e-mailing [editors@rendermagazine.com](mailto:editors@rendermagazine.com), or filling out and returning the comment card between pages 24 and 25 of this issue of Render.*

# Renderers Vow to Remain

## After feed rule is finalized during NRA spring meeting

**T**he agendas were set as renderers began arriving in Montreal, QB, Canada, in late April for what they thought would be a routine spring meeting of the National Renderers Association (NRA). But one program item that had only received brief mentions at previous meetings became the topic of discussion for three days.

On April 25, 2008, as part of trade negotiations with South Korea to open their borders to U.S. beef, the Food and Drug Administration (FDA) finalized a proposed feed rule introduced in October 2005 that seeks to further strengthen safeguards against bovine spongiform encephalopathy (see “FDA Unleashes New Feed Rule” on page 10 of this issue). The NRA was made aware of the impending publication a few days prior, just in time for its spring meeting. While renderers voiced their displeasure with FDA’s decision to publish the rule, they vowed to work with U.S. government agencies to ensure the rule is fully understood and implemented by both industry and government.

“The burden will be on renderers,” commented Dr. David Meeker, NRA Scientific Services.

“Packers and farmers have no idea how this rule is going to affect them,” added Michael Langenhorst, Sanimax.

NRA’s TSE (Transmissible Spongiform Encephalopathy) Committee hashed out the direction the industry must take at this time, including continuing to be proactive and work with FDA on providing compliance solutions and guidance documents for the industry.

Canadian renderers, who are operating under a more restrictive feed ban put in place in July 2007, were empathetic to what lies ahead for U.S. renderers, with Rob Jones, West

Coast Reduction, providing a bit of warning: “Welcome to our nightmare, gentlemen.” He added that to date not one market has reopened for Canadian products since the feed ban was put in place. Canadian renderers advised their counterparts to the south to work closely with government agencies and even suggested they would probably welcome the industry’s involvement.

While the industry sorts out the ramifications of FDA’s final feed rule, other issues still needed to be addressed at NRA’s spring meeting. The Environmental Committee discussed the Canadian government’s, primarily in Ottawa, ban of bisphenol A (BPA), which is used universally in plastics. Steve Kopperud, Policy Directions, said it has been approved as safe for over 50 years but new studies are showing BPA is a carcinogen. Meeker informed members that the Council for Agricultural Science and Technology, or CAST, is publishing three papers later this year addressing swine, poultry, and ruminant carcass disposal options. More information on the papers is available at [www.cast-science.org](http://www.cast-science.org). Committee Chairman Bob Vogler provided information on managing industrial stormwater, whose runoff causes 46 percent of water quality impairments. He said all stormwater associated with industrial activity that discharges directly to waters, or through uncombined municipal storm sewer systems, must have a permit that requires a stormwater pollution prevention plan, inspections, annual site review and plan evaluation, monitoring of discharges, training, and tracking of stormwater releases and spills.

The Biofuels Committee discussed all the blame that biofuels is getting, from the delay of the farm bill to rising food costs. Even though some large companies, such as Cargill and Unilever, are calling for removal of tax incentives for biofuels because of escalating food ingredient prices, there is still a push to renew current biodiesel tax incentives until 2010 or 2012. On the legal front, the National Biodiesel Board (NBB) has hired a law firm to represent U.S. biodiesel producers against a possible suit by the European Biodiesel Board (EBB) regarding U.S. subsidies. The EBB claims the European biodiesel industry has suffered losses due to imported fuel that has received U.S. subsidies, regardless of whether the biodiesel was produced in the United States. Farm feedstocks used in biodiesel production and any producers who received government grants to build plants may also be included in the suit. NRA Biofuels Committee Chairman Chuck Neece said NBB will send out surveys to producers in June that must be responded to or the European Union (EU) could find them guilty.

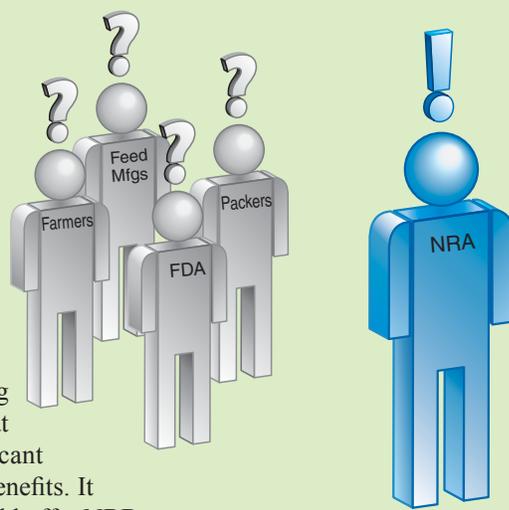
Neece reported that a recent fuel quality study showed 94 percent of biodiesel obtained from NBB BQ-9000 program participants met ASTM International fuel quality standards, whereas only 50 percent of biodiesel from producers not participating in BQ-9000 met ASTM specifications. Committee members then dealt with a request by NBB to



*Steve Kopperud, Policy Directions, center, discusses the farm bill status as committee members, from left, Bob Griffin, Griffin Industries, Don Davis, Central Bi-Products, and Mike Smith, Valley Proteins, listen.*

# Proactive

By Tina Caparella



monetarily support the board's "Maximizing Biodiesel Sustainability Benefits" program that helps define and promote biodiesel's significant sustainability and greenhouse gas reduction benefits. It was decided that in lieu of funding, NRA would offer NBB in-kind two Animal Co-Products Research and Education Center (ACREC) studies on carbon footprint and sustainability, whose combined value is \$160,000.

"We can offer them substantially more in these studies," Neece commented. The Biofuels Committee also agreed to form a task force spearheaded by Todd Moser, Rothsay, and Jeremy Goodfellow, Sanimax, that will try to unearth the negative perception issues with the use of animal fats and oils in biodiesel.

The Legislative Committee informed members about a House of Representatives bill that would rewrite the FDA Food, Drug, and Cosmetic Act to include a \$10,000 fee for importers of anything into the United States. If the bill gets passed, the rendering industry would be "written" into FDA regulation authority much like the feed industry is currently. Kopperud said he didn't think the Senate would go for such a bill but might instead introduce a lighter regulation.

The Animal Protein Producers Industry Committee recapped the continued participation in the Code of Practice audits, which includes 75 rendering plants representing more than 85 percent of U.S. rendered product production. Several renderers shared their difficulties in being recertified by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) under more stringent EU requirements. Kent Swisher, NRA International Programs, said the EU recently audited APHIS and determined inspections were not up to EU standards so APHIS now has new pre-inspection packages for renderers exporting to Europe under EU regulation 1774.

## International Insights

The NRA's International Market Development Committee took time during the meeting to focus on global issues. Joyce Bowling-Heyward, APHIS, discussed exports, beginning with the situation in China, where it is taking anywhere from six months to one year for new U.S. facilities to be approved for export to China. Negotiations to allow imports of U.S. animal fats and greases into China are non-existent and will remain so until Chinese poultry is permitted entry into the United States. APHIS has reached an agreement with Colombia for import requirements of poultry meals and is working with officials in Mexico to update the registration list of approved renderers for export into that country.

Dr Yu Yu, NRA regional director for Asia, reported that Vietnam is considering reopening its market to U.S. meat and bone meal so long as it goes through a broker. Regarding Indonesia, it appears government officials would like to open

the market to more North American rendered product exporters and are strongly considering importing meat and bone meal from South

America and the EU. European meat and bone meal is currently arriving into Southeast Asia at fairly low prices.

German Davalos, NRA regional director for Latin America, shared the good news that total U.S. exports of rendered fats and proteins into his region is 32 percent higher than a year ago, with protein meals doubling in the past three years. One area of interest is Ecuador, which began importing U.S. protein meal in 2007. Ecuador is a leader in farmed shrimp production in Latin America and the largest exporter of fresh tilapia filets to the United States. Chilean importers are looking for feather meal and poultry by-product meal from North America to be included in salmon feed, of which 1.2 million metric tons was produced in 2007.

After listening to the various reports from around the world, the IMDC determined its best strategies were to promote rendered proteins for aquaculture feeds and market tallow and yellow grease to the soap and feed industries in China. It was also decided to continue the use of educational programs in other regions on the safety of U.S. rendered products for use in all animal feeds and biofuels.

*Continued on page 14*



*Jeff Gay, Protein Products, right, shares his export frustrations with Fred Cespedes, American Proteins, left, and Rob Jones, West Coast Reduction.*

# Canadian Hospitality

During the National Renderers Association spring meeting in Montreal, QB, Canada, Sanimax provided attendees a tour of their local rendering plant followed by a dinner reception. Two bus loads of renderers took advantage of the hospitality that was both educational and delicious.

Sanimax, as a company, culminated nearly four years ago after the merger of Canadian renderer Sanimal, U.S. renderer Anamax, and Canadian marketer Bi-Pro Marketing. The company is comprised of five units: rendering; restaurant services; energy; external marketing; and hides, skins, and leather. The Montreal plant, a former Lomex facility that was purchased by Sanimal in 1987 and is now the company's headquarters, is one of 19 facilities in North America and employs 77 of the company's 1,100 workers. The 24-hour-a-day rendering operation is hazard analysis and critical control point certified and has four dedicated production lines for pork, poultry, blood, and feathers with an hourly production capacity of 65,000 pounds (lb.) of pork, 45,000 lb. of poultry material, 13,000 lb. of blood, and 20,000 lb. of feathers.

A fully integrated on-site laboratory allows samples to be tested hourly, ensuring quality control. The facility has a fleet of 10 tractors, 84 trailers, and five straight trucks with a fully integrated maintenance department to keep trucking and rendering equipment running.

The plant's process operations are entirely computerized, which is secured by a fingerprint reader so parameters can only be changed by authorized personnel. Monitors showing camera shots of various locations throughout the plant allow constant monitoring of critical control points, such as raw material reception pits.

Being located in a port city allows Sanimax to export their finished products. The Montreal plant has 11 export tanks of 500 metric ton capacity and one of 1,000 metric tons. Finished products are transported out via on-site rail line or by truck.

Although the 16-acre plant has been located in an industrial area since the late 1950s, residential houses have recently begun emerging down the street from the front entrance to the plant. However, thanks to extensive odor control technology and prevailing winds, Sanimax feels confident they will continue to be good neighbors and a valuable asset to the Montreal community for many years to come. **R**

Meeting Continued from page 13

## Research Recap

The Fats and Proteins Research Foundation (FPRF) held its meeting in Montreal in conjunction with NRA. Dr. Doris Helmes, provost and vice president for Academic Affairs at Clemson University, provided a recap of ACREC's funding contributions to date. In the first three years of the center's funding (2005-2008), FPRF contributed \$685,000 while Clemson contributed \$907,000 (in the form of professor salaries, lab facilities, equipment, etc.). External grants of \$710,000 have been received in recent years, but according to Helmes, grants right now are difficult to obtain. Contributions slated for the next two years include \$800,000 from FPRF and \$858,000 from Clemson.

The FPRF Board of Directors approved funding for three additional projects to be conducted at ACREC and two projects to be performed outside the center. The ACREC projects are:

- Biological Control of H<sub>2</sub>S (Hydrogen Sulfide)-producing Bacteria in Raw Poultry Products for Rendering
- Evaluating the Carbon Footprint of the Rendering Industry
- Development of Methodology for Correctly Enumerating Bacteria in High Fat Rendered Animal Co-products

The other two research projects FPRF approved pertain to aquaculture:

- Attractability and Palatability of Rendered Animal Proteins to Blue Shrimp
- Energy Partitioning for White Shrimp Fed Rendered Animal Protein Ingredients

J.J. Smith, Valley Proteins, thanked members who have increased their contributions to FPRF by matching or going beyond the 10-cent per finished ton challenge. It was announced that the Poultry Protein and Fat Council of the U.S. Poultry and Egg Association recently toured ACREC with a favorable response. Board members reminded attendees that next spring's meeting will take place at Clemson University in April 2008 and encouraged everyone to come see the benefits of the research center.

The spring gathering wrapped up with the NRA's Board of Directors meeting where Chairman Michael Koewler, Sacramento Rendering, thanked the Couture family and Sanimax for their hospitality while in Montreal, which included a tour of their local plant and a dinner reception. He then asked for a moment of silence in remembrance of Mike Reiser who would have been presiding over the meeting if not for his untimely death last fall shortly after taking office at NRA's convention in October.

"He was so excited about serving as chairman and tragically did not get the opportunity," Koewler commented.

Regional associations generously contributed to the industry's groups at the board meeting. Kevin Kuhni, Kuhni and Sons, presented Swisher with a \$22,000 check from the Pacific Coast Renderers Association (PCRA) for IMDC, and Koewler handed over an \$18,000 donation from PCRA to FPRF Chairman Kuhni and FPRF President Sergio Nates. The Eastern Region Renderers Association made a donation to FPRF in the amount of \$10,000.

FPRF and NRA will hold their next meetings October 21-24, 2008, in Laguna Niguel, CA. **R**



*A group of NRA spring meeting attendees enjoy a tour of the Sanimax Montreal rendering plant.*

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# Government Scientists Find New Uses for Rendered Products

By Rafael A. Garcia and Daniel K. Y. Solaiman  
U.S. Department of Agriculture/  
Agricultural Research Service

The rendering industry is a small but vital part of North America's animal agriculture system. Renderers have played a role in this system for over a century, and have long recognized that their businesses are heavily dependent on a single group of customers – feed buyers. This dependence sometimes puts renderers at the mercy of circumstances beyond their control: a glut of cheap soybean flakes, for example, can partially displace rendered proteins in least-cost feed formulations and seriously depress the market price of rendered proteins.

Renderers were pleased with the rapid growth of the biodiesel industry that began several years ago, opening a significant new market for rendered fats. Additional new outlets for rendered fats and proteins, though, have been few and far between. The Fats, Oils, and Animal Coproducts (FOAC) Research Unit, a group of scientists within the U.S. Department of Agriculture's (USDA's) Agricultural Research Service (ARS), is engaged in a long-term effort to solve the technical challenges that have so far limited the non-feed use of rendered products.

ARS is USDA's primary research agency. With an annual budget of approximately \$1.1 billion, ARS employs over 2,000 scientists to tackle a wide range of problems in food and agriculture. The FOAC research group is based in the agency's Eastern Regional Research Center (ERRC) just outside Philadelphia, PA. The group has research programs relating to fats and oils, hides and leather, rendered proteins, and wool; a separate group at the center is devoted to dairy products.

## Fats and Oils Research

ERRC's research programs in fats and oils go back almost 70 years, to the opening of the laboratory in 1940. Among the first publications from the laboratory was Dan Swern's report on a process to produce epoxidized fats and oils, which were unknown at the time but

have since found widespread use as plasticizers for PVC plastic products. The development of tallow-based "lime soap dispersing agents" (sulfonated methyl esters of fatty acids) was a major success for center scientists. These dispersing agents prevent the precipitation of tallow-based soap in hard water and improve the cold-water solubility of the soap. They are now used in a number of well-known brands of bath and laundry soap and are helping to reverse the decades-long trend of decreasing utilization of animal fat-based soap.

Current efforts by FOAC researchers are exploring a variety of exciting opportunities for the utilization of rendered fats. Newly hired chemist Helen Ngo is using modified zeolite catalysts to transform linear unsaturated fatty acids such as oleic acids into their branched-chain saturated counterparts commonly referred to as isostearic acid. These isoacids typically have lower melting points, improved lubricating properties, and better

oxidation stability than their linear isomers. As a bio-based and biodegradable alternative to petroleum lubricants, isostearic acid-type lubricants could be poised to take advantage of government mandates for increased use of bio-based products.

An interdisciplinary team, drawing on FOAC expertise in microbiology, molecular biology, and chemistry, has pioneered fermentation processes that use intact fats as feedstocks to produce value-added products. Rather than simply using the fats as an energy source, the microorganisms in these fermentations incorporate the fatty acids themselves (or their  $\beta$ -oxidized derivatives) into the structure of the products they produce. As an example, the scientists identified for the first time a bacterium (*Pseudomonas resinovorans*) that uses intact fats to produce biodegradable polymers called medium-chain-length polyhydroxyalkanoate (mcl-PHA). The properties of these polymers lend themselves to potential uses in elastomer or adhesive applications. The scientists discovered that the chemical makeup of the fat



*A bird's eye view of the USDA/ARS Eastern Regional Research Center.*

fed to microorganisms affects the structure and therefore the physical properties of mcl-PHA produced in the fermentation process. This finding provides a convenient way to synthesize the biopolymer and tailor its structure to targeted applications. For example, the scientists found that by using tallow as the feedstock, mcl-PHA polymers could be produced having repeat units with highly saturated side-chain structures. Such a material is more oxidatively stable than the mcl-PHA produced using soybean oil as a feedstock.

Another promising fermentation system uses fats and oils in the production of sophorolipids. This class of biosurfactants is produced in large quantities by *Candida bombicola*, a yeast species. Yields as high as 100 grams of sophorolipid per liter of fermentation broth are routinely obtained in the presence of lipid- and carbohydrate- (usually glucose) substrates. With tallow as the lipid substrate, ERRC researchers achieved a production yield of 32 grams of sophorolipid per liter of fermentation broth. The commercial potential of sophorolipids is immense. They are produced using renewable (non-petroleum) feedstocks and a biological (“green”) process; they are biodegradable and non-ecotoxic. Sophorolipids are currently used as an active ingredient in at least one commercially available “green” automatic dishwashing detergent. Aside from being a strong surfactant, sophorolipid has excellent antimicrobial property and skin-regenerating activity. In Europe, it is currently being incorporated into anti-acne and skin-rejuvenating products as a “cosmeceutical.”

FOAC biochemist Mike Haas has recently put much of his research effort into the development of “in situ transesterification,” a technique that allows the direct production of biodiesel from the residual fat in heterogeneous materials, including meat and bone meal. This greatly increases the value of that fat, and could boost the biodiesel supply in the United States by as much as 100 million gallons annually. Early indications from on-going research suggest that this can be done without sacrificing the value of the protein in the meal. In fact, FOAC scientists in collaboration with ARS prion researchers have shown definitively that if prions were present in the meal, the in situ transesterification would destroy a large majority of them (a six-log reduction).

Current and future work among FOAC scientists places an increased emphasis on crude glycerol utilization in order to address the massive glycerol surplus created by the growth of the biodiesel industry. ERRC scientists successfully adapted a fermentative system for producing sophorolipids, similar to those described above, so that it uses crude glycerol rather than more expensive glucose. The sophorolipids produced using this technology have a chemical structure called open-chain form, which is particularly suitable for low foaming applications such as automatic dishwashing detergent. This technology is recognized by the industry with the awarding of the 2008 National Biodiesel Board/Soap and Detergent Association Glycerine Innovation Research Award, and by the federal government through its 2008 Federal Executives Board Excellence in Government Awards – Technical Accomplishment. Seizing on this success, ERRC researchers continue to develop improved technologies to

utilize glycerol to produce other biodegradable polymers (i.e., cyanophycin, poly-gamma-glutamic acid) and biosurfactants (i.e., rhamnolipids).

### Rendered Proteins Research

Researchers at ERRC have also worked with animal proteins since the laboratory opened, primarily hides, leather, and dairy at first, later expanding into meat, wool, and gelatin. Although ERRC scientists have worked with rendered proteins occasionally over the years, funds for a program dedicated to rendered proteins were not secured until 2003 when a single-scientist research program was established.

One current effort in this program aims to transform rendered proteins into a nitrogenous feedstock suitable for use in industrial fermentations. In the chemical industry, fermentation and biorefining are projected to play a rapidly increasing role in the production of commodity chemicals such as ethyl lactate, 1,3-propanediol, succinic acid, and many others. Many of these fermentations require a relatively low cost feedstock of amino acids, which FOAC scientists believe can be supplied by derivatives of rendered proteins. Currently such derivatives are being tested with fermentations that produce cyanophycin (mentioned above) and omega-3 fatty acids.

FOAC chemist George Piazza, recently assigned to expand research on rendered proteins, is attempting to develop flocculants derived from meat and bone meal, feather meal, or blood meal. Flocculants are widely used in applications including erosion control, wastewater treatment, and mineral processing. Flocculants of this type grab on to particles suspended in water and cause them to settle out much more quickly than they would otherwise. Although this project is new, it has already produced promising results, producing bio-flocculants that in some cases perform as well as anionic polyacrylamide, a widely used petroleum-based flocculant.

### The Future of Rendered Products Research at ERRC

The amount of resources that ARS puts into particular research areas is ultimately determined by Congress and the White House through the budgeting process. More specific research goals for all ARS research programs are set in five-year planning cycles. To ensure that the research is relevant to real world practice, ARS invites research stakeholders to workshops where they can influence the shape of these research plans. The rendering industry is a major stakeholder in FOAC’s research and both the National Renderers Association and Fats and Proteins Research Foundation have and continue to participate in this process as the industry’s representatives.

In the twentieth century, some of the world’s greatest scientific talent developed the tools and processes that allowed us to turn petroleum into just about anything. Now many predict that we are entering an era in which we will gradually learn how to make all the same things using biological feedstocks. FOAC scientists sincerely believe that smart, well-planned research will overcome the obstacles to using rendered products as a biological feedstock and provide major new commercial opportunities. **R**



# APPI Testing, Education, and Public Health

The Animal Protein Producers Industry (APPI) is the rendering industry program responsible for the weekly *Salmonella* testing in

North America. APPI also develops educational programs to control biological, chemical, and physical hazards, and will be considering other biosecurity program needs in the future. APPI became a program within the National Renderers Association on January 1, 2006, and is open to all renderers.

APPI's objectives are uniquely focused to assist member companies in manufacturing safe products. The Rendering Industry Code of Practice corresponds very closely to the initiatives taking place throughout the entire food chain and

further the concept of safe feed – healthy livestock – safe food – healthy people. With continued intense scrutiny on all feed ingredients, the development of the code of practice by renderers shows great foresight. The leading edge of the rendering industry are those renderers who participate in the *Salmonella* program and the participants in the code of practice that can be found at <http://nationalrenderers.org/biosecurity>.

APPI will continue to develop innovative programs to promote the safety of animal proteins and feed fats through testing, continuing education and training, and collaborative research. The following plants have made a significant commitment and will be the foundation for safe rendered feed products in the future.

**The following rendering plants have completed the required testing for APPI's 2007 *Salmonella* testing program.**

**Alberta Processing Co.**

Calgary, AB, Canada

**Allied Premium Protein**

Gaffney, SC

**Ampro Products, Inc.**

Concordia, MO

Cummings, GA

Gainesville, GA

Pickensville, AL

**American Proteins, Inc.**

Alma, GA

Hanceville, AL

Hanceville, AL (Pet Food Div.)

Cumming, GA

Cuthbert, GA

**Baker Commodities, Inc.**

Kerman, CA

Los Angeles, CA

N. Billerica, MA

Phoenix, AZ

Rochester, NY

Seattle, WA

Spokane, WA

**Birmingham Hide and Tallow**

Birmingham, AL

**Boyer Valley Co.**

Arion, IA

Harlan, IA

**Cargill Meat Solutions**

Beardstown, IL

Dodge City, KS

Friona, TX

Ft. Morgan, CO

Highriver, AB, Canada

Ottumwa, IA

Plainview, TX

Schuyler, NE

Wyalusing, PA

**Carolina By-Products, Div. of Valley Proteins**

Fayetteville, NC

Fayetteville, NC (Pet Food Div.)

Gastonia, NC

Rose Hill, NC

Wadesboro, NC

Ward, SC

**Central Industries, Inc.**

Forest, MS

**Clougherty Packing (Hormel Foods)**

Los Angeles, CA

**Darling International, Inc.**

Bellvue, NE

Berlin, WI

Boise, ID

Blue Earth, MN

Clinton, IA

Coldwater, MI

Collinsville, OK

Dallas, TX

Denver, CO

Des Moines, IA

Fairfax, MO

Fresno, CA

Houston, TX

Kansas City, KS (James Street)

Kansas City, KS (Adams Street)

Los Angeles, CA

Lynn Center, IL

Mason City, IL

National Stock Yards, IL

Newark, NJ

Omaha, NE (33rd Street)

Omaha, NE (Dahlman Avenue)

San Francisco, CA

Sioux City, IA

Tacoma, WA

Turlock, CA

Wahoo, NE

Wichita, KS

**E.A. Miller, Inc. (Swift and Co.)**

Hyrum, UT

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

Redwood Falls, MN

Long Prairie, MN

**Fieldale Farms Corp.**

Cornelia, GA

Toccoa, GA

**Foster Farms**

Livingston, CA

**F.W. Renner and Son, Inc.**

Canton, OH

**G.A. Wintzer and Son Co.**

Wapakoneta, OH

**Gibbon Packing, Inc.**

Gibbon, NE

**Griffin Industries, Inc.**

Bastrop, TX

Butler, KY

Conley, GA

East Dublin, GA

Hampton, FL

Jackson, MS

Newberry, IN

Russellville, KY

Tampa, FL

Union City, TN

**H.J. Baker and Brothers, Inc.**

Albertville, AL

Ft. Smith, AR

Nacogdoches, TX

Sanford, NC

Forest, MS\*\*\*

**Hahn and Phillips Grease**

Marshall, MO

**Holmes By-Products**

Millersburg, OH

*Continued on page 20*



# SALMONELLA!

Salmonellae are a resourceful and defiant group of microorganisms that parasitize a broad range of hosts and remain a challenge to the rendering industry. As an important link in the food chain, the rendering industry is conscious of its role in the prevention and control of this group of organisms to assure safe feed supplements for livestock, poultry, and pet foods.

## **WE MUST WORK TOGETHER AND BE PROACTIVE TO ACHIEVE THAT GOAL!**

Since 1985, the Animal Protein Producers Industry (APPI) has coordinated a progressive program of education and laboratory sampling for its membership to control Salmonella. This program serves as the industry's official response to reduce the incidence of the organism in rendered protein meals. The diversity of the entire salmonella complex serves as a reminder that we have to combine our resources to insure that a workable initiative is in place to counter the different avenues of transmission and contamination.

The benefits of an organized system for surveillance, testing, education, and prevention are obvious. APPI is also interactive with national livestock/poultry associations, regulatory agencies, academic and industrial sectors, research institutions, and disease control officials in its quest for an active Salmonella control program.

All renderers who are not currently involved with this government endorsed program are encouraged to support the effort. Active participation shows your commitment to Salmonella control. Membership permits your display of the SALMONELLA SECURITY SEAL on your finished products.

Ask your animal protein suppliers to be a part of an active control program by joining today!

**For information call:**  
**Ms. Dara John (660) 277-3469**



[www.animalprotein.org](http://www.animalprotein.org) • e-mail: [appi@animalprotein.org](mailto:appi@animalprotein.org)

**Hormel Food Corp.**

Austin, MN  
Fremont, NE

**HTC Industries**

San Angelo, TX

**Indiana Packers Corp.**

Delphi, IN

**Island Commodities Corp.**

Kapolei, HI

**JCR Enterprises, Inc.**

Linkwood, MD

**John Kuhni Sons, Inc.**

Nephi, UT

**Kaluzny Bros., Inc.**

Joliet, IL

**Keystone Protein Company**

Fredericksburg, PA

**Kruger Commodities**

Hamilton, MI

**Maple Lodge Farms**

Norval, ON, Canada

**Mason City By-Products**

Mason City, IA

**Mendota Agri-Products**

Mendota, IL

**Merrick Animal Nutrition, Inc.**

Union City, WI

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

Kansas City, KS  
Memphis, TN

**National Beef California**

Brawley, CA\*\*\*

**National Beef, LLC**

Dodge City, KS  
Liberal, KS

**North Alabama Blend Mill (Tyson Foods)**

Cullman, AL

**Northern Alberta Processing**

Sherwood Park, AB, Canada

**Nutra-Flo Co.**

Sioux City, IA

**Nutri Feeds, Inc.**

Hereford, TX

**Nutrimax, Inc.**

Greensboro, NC

**Oklahoma By-Products**

Durant, OK

**Pacific Rendering Co., Inc.**

Seattle, WA

**Perdue Farms, Inc.**

Lewiston, NC  
Accomac, VA

**Pilgrim's Pride Corp.**

Ball Ground, GA (formerly Gold Kist)  
El Dorado, AR  
Farmerville, LA  
Live Oak, FL (formerly Gold Kist)  
Mt. Pleasant, TX  
Moorefield, WV

**Pilgrim's Pride Corp. (continued)**

Russellville, AR  
Timberville, VA

**Pine Bluff Blending Mill (Tyson Foods)**

Pine Bluff, AR

**Protein Products, Inc.**

Sunflower, MS

**River Valley Animal Foods**

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

**Rothsay**

Dundas, ON, Canada  
Foxtrap, NF, Canada  
Moorefield, ON, Canada  
Truro, NS, Canada  
Winnipeg, MB, Canada

**Rothsay-Laurencio**

Quebec, Canada

**S.F. Rendering, Ltd.**

Port Williams, NS, Canada

**Sacramento Rendering**

Sacramento, CA

**Salinas Tallow Co.**

Salinas, CA

**Sanimax**

Green Bay, WI  
So. St. Paul, MN  
Guelph, ON, Canada (formerly Bi-Pro Marketing)  
Charny, QB, Canada  
Montreal, QB, Canada

**Saskatoon Processing Co.**

Saskatoon, SK, Canada

**Simmons Foods, Inc.**

Southwest City, MO

**Smithfield Foods, Inc. (Farmland Foods)**

Crete, NE  
Denison, IA  
Milan, MO (formerly Premium Standard Farms)  
Monmouth, IL

**Smithfield Foods, Inc. (John Morrell and Co.)**

Sioux City, IA  
Sioux Falls, SD

**Smithfield Foods, Inc. (Mountain View Rendering)**

Edinburg, VA

**Smithfield Foods, Inc. (Smithfield Beef Group—formerly Moyer Packing)**

Elizabethville, PA  
Elroy, PA  
Seaford, DE

**Smithfield Foods, Inc. (Smithfield Beef Group—formerly Packerland Packing)**

Green Bay, WI

**Smithfield Foods, Inc. (Smithfield Beef Group—formerly Sun Land Beef Co.)**

Tolleson, AZ

**Smithfield Foods, Inc. (Smithfield Packing Co.)**

Smithfield, VA  
Tar Heel, NC  
Clinton, NC (formerly Premium Standard Farms)

**Standard Fertilizer Co.**

Greensburg, IN

**Swift and Co.**

Cactus, TX  
Greeley, CO  
Grand Island, NE  
Louisville, KY  
Marshalltown, IA  
Worthington, MN

**Tallowmasters, LLC (formerly Florida Transport 82)**

Miami, FL

**Tyson Fresh Meats**

Amarillo, TX  
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Denison, IA  
Emporia, KS  
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Lexington, NE  
Logansport, IN  
Madison, NE  
Pasco, WA  
Perry, IA  
Storm Lake, IA  
Waterloo, IA

**Valley Proteins Inc.**

Amarillo, TX  
East Earl, PA  
Emporia, VA  
Linville, VA  
Strawberry Plains, TN  
Winchester, VA

**Venture Milling Co.**

Annonville, NC  
Seaford, DE

**Washington Beef**

Toppenish, WA

**West Coast Reduction, Ltd.**

Vancouver, BC, Canada

**West Coast Rendering**

Vernon, CA

**Western Mass. Rendering**

Southwick, MA

**Wilbur Ellis Co.**

Portland, OR\*

**Worthington Rendering Co.**

Worthington, MN

Total plants: 205

\*\*\*New participants (2)

\*Plants that did not participate or complete the 2006 testing program but have participated in the program in past years (1) **R**

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# The answer is pumping.

# From the Association

By Tom Cook  
President, National Renderers Association

## Finalized Feed Rule Not the Only Hot Topic

On April 22, 2008, I received a call from an official at the Food and Drug Administration (FDA) Center for Veterinary Medicine (CVM) telling me he had drawn the short straw and it was his task to tell the National Renderers Association (NRA) that the two-and-a-half year old proposed feed rule would be made final and published in the *Federal Register* on April 25, 2008.

I sincerely believed this proposal was headed for the shelf if it were not for the need of U.S. trade negotiators to give a chit to the South Koreans in order to open that market for U.S. beef. South Korea has been a difficult trading partner for beef ever since they closed their markets after the discovery of the first case of bovine spongiform encephalopathy (BSE) in the United States. They continued to raise the bar every time they met with U.S. trade officials. No logic, good science, or international guidelines would convince them of the safety of U.S. products. Beef imports became a political hot potato with the Korean farmers and politicians. The issue reached the presidential level in both countries in their respective desires to move forward on a U.S./South Korean Free Trade Agreement.

The rendering industry fought a good fight. The NRA and its members can be proud of their efforts. We caused the FDA to rethink the proposed rule. There is a much better understanding of the rendering industry and the potential consequences of the final rule.

This final rule will raise new challenges and, some say, opportunities

for all segments of the industry.

Coincidentally, the NRA was having its annual spring meeting in Montreal, QB, Canada the week of the FDA announcement giving the industry the opportunity to review the rule and develop a strategy to move forward. More is covered on page 10 in this issue of *Render* in an article written by Dr. David Meeker. NRA has begun the dialogue with FDA/CVM officials as they proceed to develop guidelines to implement this new rule.

But believe it or not, there are other issues that occupy our time and resources than just the battle over the feed rule.

For instance, the NRA has devoted a good deal of effort in guaranteeing equity with other feedstocks in the biofuels arena. We've had relatively good success in our efforts. Rendered fats and oils are recognized as legitimate feedstocks for biodiesel and receive either 50 cents or a dollar a gallon credits, depending on the type of feedstock. We are currently working to level the playing field so all feedstocks receive the same level of tax credit or benefit.

Renderers have also been able to benefit when they produce and burn their own products as fuel in the form of an alternative tax credit. NRA's objective currently is to see that these programs get extended beyond their current expiration dates and that there is equity between rendered feedstocks and other feedstocks. We thought the current and ongoing farm bill legislation would include these extensions, but unfortunately they have been removed from the

farm bill deliberations. However, there is other legislation being considered whereby these extensions are likely to be included.

The big issue currently making all the headlines in the United States and throughout the world is the topic of "food versus fuel." Both sides of the argument are raising the rhetoric to ear piercing levels. With food prices going up so significantly, there is a lot of blame directed to biofuels. Ethanol and corn are taking the brunt of the argument because of the large volumes being produced in relation to the other alternative fuels such as biodiesel.

It is too early to know what actions, if any, will be taken on this debate. There is a lot of finger pointing as to who is to blame for the high food prices. With it being an election year, anything can happen. On top of this, many forecasters are predicting another spike upward in food prices sometime this summer.

We will continue to be vigilant as the debate accelerates to make sure the facts are presented as to the role and contributions of rendered products in the production of biofuels.

The NRA's 75th annual convention will be October 20-24, 2008, in Laguna Niguel, CA. As we get ready to celebrate our past and look to the future, I hope many of you are planning to attend the convention. More information can be found on our Web site at [www.nationalrenderers.org](http://www.nationalrenderers.org). It will be an exciting time for renderers to gather and participate in the many activities planned. R

## Looking to Buy Rendered Products?

Log onto [www.rendermagazine.com](http://www.rendermagazine.com) and click on "NRA Directory" for a listing of renderers who are members of the National Renderers Association.



# Renderers Encouraged to Register Under NAIS Program



The U.S. Department of Agriculture (USDA) continues to work to accomplish animal identification (National Animal Identification System, or NAIS), which is critical for tracking animal disease outbreaks and for complying with international standards. Implementation has been made more complicated by the voluntary nature of the program. Of the approximately 1.4 million premises that handle livestock in the United States, some 461,000 have been registered to date. The goal is to be able to track a disease to its source in 48 hours in the event of a foreign animal disease outbreak.

Now that the USDA is approaching critical mass on enough farms and ranches to get a good start on a functional animal tracking system in the United States, other critical locations such as livestock markets, livestock dealers, abattoirs, and rendering facilities are also being asked to register premises. Registration requires basic data including

plant name, address, and the types of animals handled. In the future, registration could be a requirement for contacts such as those used to collect bovine spongiform encephalopathy samples from cattle.

Area veterinarians in charge have been told to contact operations in their area to request that they register. Some will assist plants in filling out a paper form, or plant managers can register online at [http://animalid.aphis.usda.gov/nais/premises\\_id/register.shtml](http://animalid.aphis.usda.gov/nais/premises_id/register.shtml). From this Web site, you can link to your state and the agency handling the NAIS program.

The National Renderers Association (NRA) is recommending that all renderers register their plants, whether or not they handle dead stock. Registering will show the rendering industry's commitment to animal health and the industry's participation in progressive programs. The NRA has worked hard to ensure that

the planning for these programs include the rendering industry and now renderers should step up and participate.

According to the USDA:

1. Premises registration is free.
2. The registration process is quick – simply fill out a short form with your contact information.
3. Choosing to register your premises does not require you to participate in the other two NAIS components (animal identification and animal tracing).
4. USDA maintains limited premises information and will protect individuals' private information from disclosure.

More information on the NAIS can be found at <http://animalid.aphis.usda.gov/nais>. **R**

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## Animal Fats are Feedstock of Choice at Three New Plants

Three new biodiesel plants are starting up with their feedstock of choice: animal fats.

In late April, High Plains Bioenergy, a joint venture between Seaboard Foods and Oklahoma City, OK-based Musket Corporation, held a grand opening at its Guymon, OK, biodiesel plant that is producing more than 60,000 gallons of fuel each day from pork fat. At full capacity, the facility will produce 30 million gallons per year using the by-product of Seaboard's Guymon processing facility. High Plains Bioenergy says one gallon of biodiesel can be made from every gallon of pork fat.

The plant was the result of Seaboard's employees experimenting with ways to add value to pork fat. The first batch of biodiesel was actually made in someone's garage.

"That experiment led us to spend \$40-plus million for a biodiesel plant," said Seaboard Foods President Rod Brenneman. The biodiesel will be marketed and distributed through the partnership with Musket Corporation. The plant is designed to also use other oils, such as vegetable, to produce biodiesel.

Also in late April, Direct Fuels opened a biodiesel production facility at its Eules, TX, refinery, which follows the company's opening of an 11-acre ethanol distribution center this past January. The company is reportedly using a blend of animal fats initially to produce the biodiesel, but will adjust its production technology according to market conditions. The 10 million gallon per year plant has an in-house laboratory to ensure all biodiesel meets appropriate product specifications. The company is also working towards obtaining BQ-9000 certification from the National Biodiesel Board.

In early April, DAKA a.m.b.a began operation of its biodiesel plant in Losning, Denmark. The 56 million liter (14.7

million gallon) per year multi-feedstock plant will primarily use animal fats from the DAKA rendering facility. Animal fat is prohibited by European Union law from being used in food or animal feed, but fat meeting category I requirements can be used in biofuels production. The DAKA biodiesel plant is the sixteenth facility worldwide engineered by BDI – BioDiesel International AG, and took 11 months to construct.

Animal fats have also played a role in allowing one Midwest biodiesel producer to expand amidst the closing of other area plants. Northwest Missouri Biofuels, located in St. Joseph, MO, recently completed an expansion that allows them to produce 15 million gallons of biodiesel per year. Animal fat has been the sole feedstock for the facility since February 2008, and will continue to be into the future, due to its lower cost than vegetable oils.

"As a biodiesel feedstock, animal fat presents greater challenges due to its variability in quality and chemical make-up from truckload to truckload," remarked Pat Lappe, chief operating officer of Progressive Energies, Inc., the company retained by Northwest Missouri Biofuels to manage the facility. "With our quality control processes and experience with this product, we are able to procure sufficient feedstocks and produce a consistent end product meeting ASTM [International] specifications." The plant is configured to produce biodiesel from other feedstocks such as vegetable oils.

### Biodiesel Survey Proposed

The U.S. Energy Information Administration (EIA) is proposing a new mandatory biodiesel survey in response to the Energy Policy Act of 2005, in which Congress directed EIA to collect information on biofuels. The survey, the

EIA-22M, will collect monthly data on biodiesel and co-product production, feedstocks, and sales and tax credits. The entity responsible for reporting this information to EIA is the biodiesel producer. A one-time supplement, EIA-22S, to collect historical data on production, is also proposed.

The survey proposal was published in the April 28, 2008, *Federal Register*, which is the first step in clearing a new survey through the Office of Management and Budget. Included in the *Federal Register* notice are proposed drafts of the survey forms (both the monthly form and the annual supplement) and instructions. Prospective respondents and other interested parties should comment on the survey proposal no later than June 27, 2008. Copies of the forms and instructions can be found at [www.eia.doe.gov/fuelrenewable.html](http://www.eia.doe.gov/fuelrenewable.html). Comments on the proposed survey should be sent to Mary Joyce; Coal, Nuclear, and Renewable Fuels Division (EI-52); Forrestal Building, U.S. Department of Energy; Washington, DC 20585-0670. Joyce may be contacted by phone at (202) 586-1468, or by e-mail at [mary.joyce@eia.doe.gov](mailto:mary.joyce@eia.doe.gov).

### Aerospace Firms Team Up to Produce Biofuel

In its continuing efforts toward eco-efficiency, and to help the entire aviation sector prosper with less impact on the environment, Airbus has teamed with Honeywell Aerospace; UOP, a Honeywell company; International Aero Engines (IAE); and JetBlue Airways to pursue development of a sustainable second-generation biofuel for use in commercial aircraft.

The companies' joint venture will help develop renewable energy technology to convert non-food crop biomass, such as algae, into aviation fuels and to evaluate the challenges

for obtaining approval for this fuel by standards organizations. This “second-generation bio-jet” fuel used will be produced using technology developed by Honeywell’s UOP that converts biological material into renewable jet fuel that performs identically to traditional fuels while meeting the stringent performance specifications for flight.

## EBB Lodges Complaint Against U.S. Subsidies

On April 25, 2008, the European Biodiesel Board (EBB) presented a legal complaint to the European Commission (EC) against unfair subsidized biodiesel exports from the United States.

EBB says U.S. federal measures adopted in 2004 allow biodiesel to be subsidized up to \$300 per metric ton by only adding a “drop” of diesel to biodiesel, allowing U.S. producers to claim the maximum subsidy for a 99 percent biodiesel blend (B99). Such a blend can then be exported to Europe where it is also eligible for European subsidies.

EBB claims that since 2007, as a result of these measures, there has been a dramatic surge in U.S. biodiesel exports to the European Union (EU), creating “severe injury” to the EU biodiesel industry. They also state that unfair competition from U.S. B99 fuel is price-setting and has progressively disrupted the margins of European biodiesel producers, putting most of them out of business. Consequently, the EU biodiesel production capacity remained largely unutilized in 2007 with production increasing at a much lower rate than in previous years.

EBB had previously asked U.S. Congress to resolve the unfair subsidies but has not received a “sustainable answer” and sees evidence the subsidies could be extended beyond 2008.

Because of these circumstances, EBB filed a joint anti-subsidy and anti-dumping complaint to the EC urging them to initiate an investigation, with a view to impose as soon as possible countervailing measures against U.S. B99 exports to the European Union.

EBB stated that these subsidized exports are a trade practice that not only breaches World Trade Organization rules but is also threatening the concept of international trade in biodiesel.

*Continued on page 26*



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## Energy Company to Run 800 Vehicles on Biodiesel

DTE Energy of Detroit, MI, is lightening the environmental footprint of its 800 diesel-fueled trucks and service vehicles by using biodiesel. The company began using a five percent biodiesel blend in its vehicles earlier this year. The company is gradually increasing the blend to 20 percent biodiesel with complete conversion by mid-year.

“DTE Energy has 800 diesel-fueled vehicles ranging from construction equipment and bucket trucks to light duty vehicles,” said Bill Pettit, director of fleet administration and operation for the company. “Converting our fleet to biodiesel is the environment equivalent of taking about 120 of those vehicles off the road and out of service.” The company also expects to save almost \$600,000 annually due to biodiesel’s lower cost to petroleum diesel.

RKA Petroleum, based in Romulus, MI, will be supplying the multi-feedstock biodiesel to DTE Energy. DTE Energy’s operating units include Detroit Edison, an electric utility serving 2.2 million customers in Southeastern Michigan; MichCon, a natural gas utility serving 1.3 million customers in Michigan; and other non-utility energy businesses.

## Grease Thefts Reportedly on the Rise

Several news articles are reporting that theft of used grease from restaurants is on the rise across the United States.

In California, an Illinois man was arrested after allegedly stealing grease from a grease trap at a Morgan Hill restaurant. David Richardson was spotted by the owner of San Jose Tallow, Mark Rosenzweig, who was in the area because of his concerns about the disappearance over a six to eight month period of the grease he collects.

“It wasn’t obvious at first, a tank here, a tank there,” said Rosenzweig who has contracts with the local restaurants to collect the grease. California legislation was put in place over 10 years ago making the collection of grease illegal without a valid state permit. Richardson was reportedly working for a Las Vegas, NV, company at the time of his arrest.

The company was not registered to do business in California or collect grease.

The case is being prosecuted by the environmental crimes division of the Santa Clara District Attorney’s office, which has received additional information about Richardson due to the news publicity of the theft. Richardson was due in court at the end of May for a pre-trial hearing.

In and around Wichita, KS, thieves are cutting locked storage areas behind restaurants to steal the used vegetable oil Ben Healy of Healy Biodiesel has contracts to collect, which he then processes into biodiesel. While Healy doesn’t have precise amounts, he believes the quantity of used cooking oil being stolen is in the “thousands of gallons.” Wichita police are investigating and say this is the first they’ve seen of this type of crime in the area.

In Seattle, WA, Standard Biodiesel told *The Seattle Times* it loses 30,000 gallons of used cooking oil each month. They, too, are working with local police. Meanwhile, Griffin Industries reportedly has two detectives working grease theft cases in Kentucky, Texas, Florida, Missouri, and in northern Arkansas.

## Illinois Biodiesel Plant Acquired, with Some Financial Help

Blackhawk Biofuels, LLC, has acquired the assets of a 45 million gallon per year biodiesel production facility under construction in Danville, IL, from Biofuels Company of America, LLC.

As part of the agreement, Renewable Energy Group, Inc., (REG) will provide financing in the form of a convertible loan to Blackhawk. Fifth Third Bank is also participating in the financing. As a commitment to the Danville facility, the Office of Illinois Governor Rod Blagojevich and the Illinois Finance Authority are providing financial assistance in the form of a state credit enhancement.

REG will manage operations and staff at the plant, procure feedstocks, and market the biodiesel through its national distribution channels as part of an agreement with Blackhawk Biofuels. The facility is located adjacent to a soybean crush facility owned by Bunge North America.

The biodiesel facility was designed to

exclusively use vegetable oils, however, Blackhawk Biofuels is partnering with REG to upgrade the plant’s technology to allow for multiple feedstocks to be used to produce biodiesel. Production is projected to begin as early as this fall.

## Iowa Expands Renewable Fuels Infrastructure

Iowa Governor Chet Culver signed legislation in mid-May that makes changes to the Iowa Renewable Fuels Infrastructure Program created in 2006 to expand renewable fuels access across the state. Specifically, the new legislation makes the following key changes as they relate to biodiesel (ethanol is also included in the legislation):

- allows retailers interested in putting in both E-85 (85 percent ethanol) and biodiesel at the same location to now receive funding for both as opposed to the previous restriction of limiting to just one or the other;
- increases funding for biodiesel terminals from \$50,000 to \$100,000;
- encourages state and local government fleets to use biodiesel when commercially available; and
- builds upon the long standing public/private partnership the state of Iowa has had to increase access and usage of renewable fuels.

## Joint Venture Recycles Used Cooking Oil

Tellurian Biodiesel has entered into a joint venture with Golden State Foods (GSF), a diversified supplier to the quick-service restaurant industry, to recycle used cooking oil into biodiesel.

The new venture, Encore BioRenewables, plans to launch its first biodiesel production facility in Southern California in early 2009. The company plans to open additional processing plants throughout the United States as the market develops for their product. These plants will be sited near locations that can collect used cooking oil from restaurants.

“GSF first approached Tellurian more than four years ago, seeking guidance in converting cooking oil into biodiesel fuel,” said Bill Sanderson, GSF’s corporate vice president of finance. “We’re delighted to have formed this alliance.”

Encore BioRenewable’s first plant

will have an initial annual capacity of five million gallons, but will be expanded as demand for biodiesel increases. In addition to used cooking oil, the plant will be able to convert other domestic fats and oils into biodiesel.

## Minnesota Increases Biodiesel Mandate

Governor Tim Pawlenty has signed a bill that increases Minnesota's biodiesel mandate over the next seven years, eventually reaching a 20 percent biodiesel blend by 2015.

Currently, diesel fuel sold in the state must contain at least two percent biodiesel. That will increase to five percent by May 1, 2009, 10 percent by 2012, and 20 percent by 2015. The 10 and 20 percent mandates will only be in effect from April through October and the increases are not automatic. The bill contains an approval process before moving to higher blends to allow the legislature, biodiesel producers, and other stakeholders to gauge supply and demand impacts before moving to a higher blend.

The legislation also requires that five

percent of the feedstock used to produce the state's biodiesel come from non-traditional state agricultural resources, including algae, waste oils, and tallow, as well as other future feedstocks being researched in the state, such as cuphea (an oilseed plant that can grow on marginal soils) and industrial hazelnuts.

## NBB Grants \$1.2 Million for Soybean Oil Research

The National Biodiesel Board (NBB), with funding support from the U.S. Department of Transportation, has granted more than \$1.2 million to the Donald Danforth Plant Science Center in St. Louis, MO, to fund a three-year research project designed to enhance the oil production in soybeans. The project is aimed at increasing the supply of renewable oil used in biodiesel production.

Danforth Center Principal Investigator Dr. Jan Jaworski will lead the project that will focus on increasing the oil produced in soybean seeds by altering specific biochemical pathways that are embedded within the soybean plant.

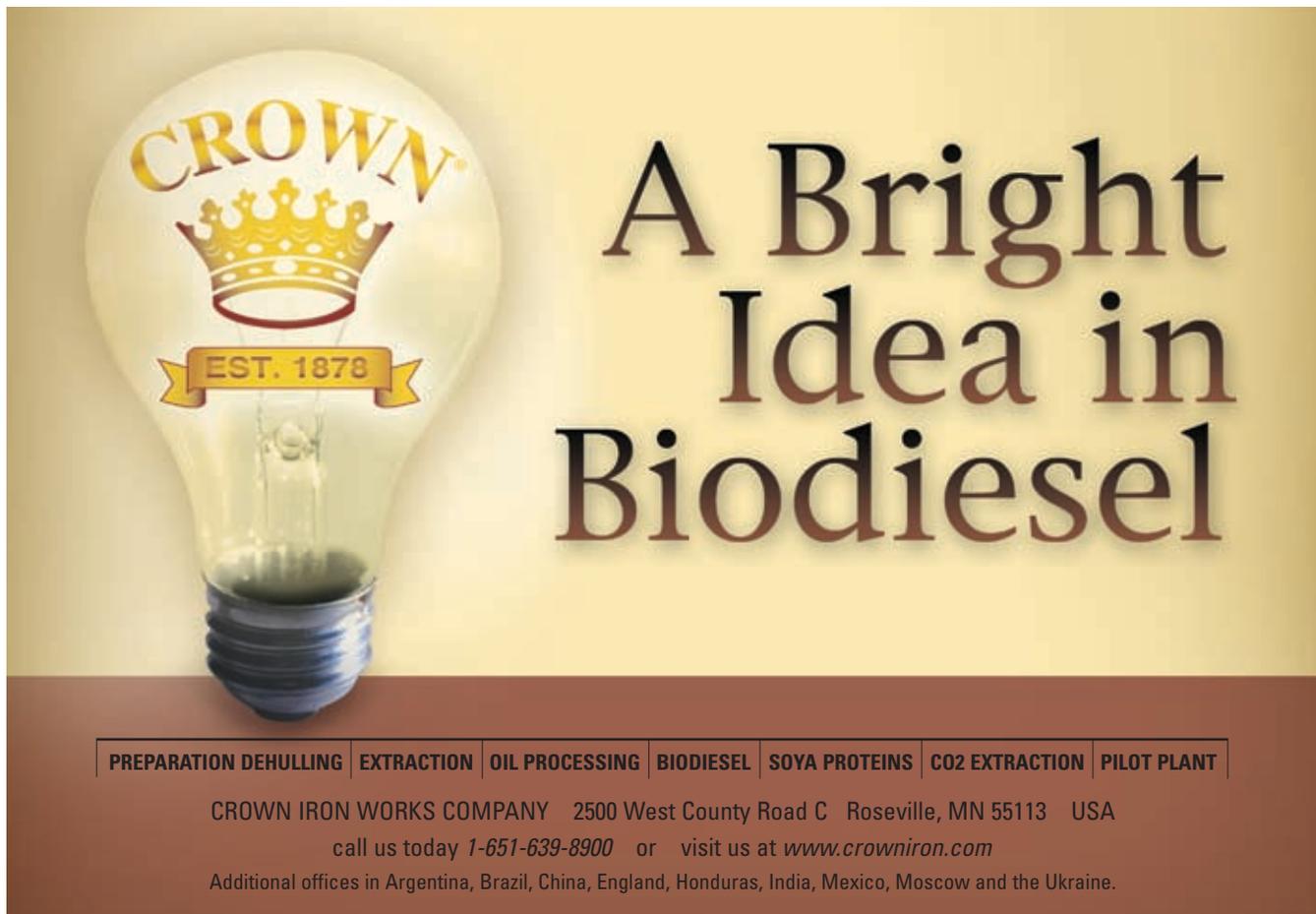
## Neste Oil Renames Biodiesel Division

Neste Oil's Biodiesel division has been renamed Renewable Fuels. The change was made because the term biodiesel is often associated with fatty acid methyl ester products, which are completely different from Neste Oil's advanced renewable diesel in terms of both production technology and product property.

## Nova Biosource Plant Reaches Milestone

In the first 25 days of start-up production, Nova Biosource Fuels' biodiesel facility in Seneca, IL, produced more than one million gallons of fuel that met ASTM International standards from the first 20 million gallon per year train. The refinery layout incorporates three process trains, each rated at 20 million gallons per year. When all three process trains are running at capacity, the plant will generate 60 million gallons per year of biodiesel made from locally generated, low-cost feedstocks, including animal

*Continued on page 39*



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# A Bright Idea in Biodiesel

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By Annel K. Greene, PhD  
Center Director, Clemson University  
Animal Co-Products Research and Education Center

## Exploring the Antimicrobial Benefits of Rendered Products

Food microbiologist Dr. Paul L. Dawson, a member of the Clemson University Animal Co-Products Research and Education Center (ACREC) team, is working to isolate proteins from rendered products that can have significant antimicrobial applications and great potential for economic return to the industry. A native of Maryland who holds degrees from Salisbury University, the University of Florida, and North Carolina State University, Dawson has a strong background in food microbiology, poultry and meat products, and food analysis. He was instrumental in the development of ACREC and helped establish the initial groundwork for the center. Dawson's research focuses

on the microbial safety of foods and feed materials and he has pioneered considerable work in non-antibiotic control of pathogenic bacterial strains. He has worked on the development of bioactive films and other materials that can be used to protect products to prevent microbial contamination.

Dawson understood that as strong antibiotic resistant bacterial strains such as methicillin-resistant *Staphylococcus aureus*, or MRSA, continue to develop, antibiotic use in non-medical applications like animal feeds will continue to receive negative publicity and stricter regulatory control. Use of antibiotics in animal feeds allows faster animal growth and thus, increases profitability of livestock and

poultry operations. Dawson recognized that the bioactive protein fraction that fellow ACREC researcher Dr. Thomas R. Scott had isolated from bovine mammary glands could have potential antimicrobial activity.

In his current study, Dawson, his research associate Dr. Inyee Han, and graduate student Paljinder Manhiani took this bioactive fraction and tested it against pure strains of *Escherichia coli* O157:H7 and *Listeria monocytogenes*. Both of these microorganisms are severe human pathogens of animal origin. They represent two wholly different categories of bacteria known as Gram negative and Gram positive, respectively, based on cell wall architecture and composition. In the study, Dawson's team determined that the crude extract had antimicrobial activity against the Gram-positive *Listeria monocytogenes*. The team conducted a series of steps to further purify the extract and their results yielded a small (10 dalton) protein fraction that possessed antimicrobial activity. This product could have widespread application, especially in poultry feeds, as a growth promoter. Further testing in animals is needed.

Based on previous knowledge that certain bioactive moieties possess both antimicrobial and antioxidant characteristics, Dawson had the team turn their attention to determining if the mammary gland extracts could be utilized as an antioxidant. He hypothesized that such a product from rendered materials could have high economic value as both an antimicrobial agent and antioxidant for animal feeds. In his preliminary studies, Dawson determined that the mammary gland extracts do indeed possess antioxidant qualities. He has proposed to continue this study by looking for synergistic activities with other non-antibiotic antimicrobial substances such as the bacteriocin nisin, the enzyme lysozyme, and short-chain fatty acids.



Dr. Paul Dawson, left, and research associate Dr. Inyee Han conduct a microbiological study.

The results of this study led Dawson and his team to related research on the isolation of antioxidants from spent fowl. Spent fowl are a waste product generated from the laying hen industries that are often sent to rendering for disposal. Two peptides found in muscle meat (carnosine and anserine) are well documented as antioxidants and have been proposed for numerous medicinal applications, including therapeutic treatment for Parkinson's and related diseases.

These water soluble extracts also have been found to increase muscle endurance in laboratory animals. In fact, a Japanese company is marketing a powdered form of a chicken breast extract for use as a food supplement/additive. Preliminary data is being collected by Dawson's team on extraction of a concentrated form of these compounds from spent fowl for use in veterinary or possibly human applications. Unfortunately, funding for this project ends in June 2008 and, thus, Dawson's future plans for this project are on hold pending continued funding.

In his previous ACREC study, Dawson investigated the time/temperature requirements for destroying the most heat resistant microorganisms from rendered products. This preliminary project was part of the on-going quest to determine all of the factors necessary for determining a calculated process for the rendering industry.

Dawson has recently received considerable worldwide media attention for two student projects on "The 5-Second Rule" and "Double Dipping." In the first, he and a team of undergraduate students investigated the validity of the old superstition that states that if a food only touches a dirty surface for five seconds, it is still acceptable to eat. His results proved otherwise. The double dipping project was in response to a popular episode of the television series *Seinfeld* in which character George has a debate concerning transfer of microorganisms from the mouth to a food via a double dipped chip. Dawson and his team of undergraduates confirmed the vast transfer of microorganisms from the mouth to the food.

These two projects have garnered considerable media attention. Dawson has been interviewed for two *New York Times* articles, appeared on CNN's *Glenn Beck Show*, The Discovery Channel Canada, National Public Radio's

*Whad'Ya Know* with Michael Feldman, and the projects were mentioned on CBS' *The Early Show* and on *The Tonight Show with Jay Leno*. Dawson has conducted over 100 radio interviews related to these projects for radio stations from as far away as Australia and Ireland. The double dipping project will be cited in an upcoming *Reader's Digest* in the United Kingdom. Popular press articles have appeared in *The Washington Post*, *Harper's Weekly*, *The Wall Street Journal*, *The Scientist*, *Cosmopolitan*, and *USA Today*.

Dawson's international research team includes graduate and undergraduate students involved in a variety of microbial investigations on meat and poultry materials. In addition, Dawson works closely with his wife, Rose Martinez-Dawson, a senior lecturer in the Department of Applied Economics and Statistics at Clemson University. Together this brilliant married couple has considerable expertise in various areas of microbiology, statistics, chemistry, biochemistry, and food science.

The Clemson University Animal Co-Products Research and Education Center is very proud to have Dawson and his team working on projects that are of such vital interest to not only the rendering industry but to the biosecurity of our food supply and to the pool of knowledge in the antimicrobial product fields. **R**

**Newsline Continued from page 8**

business practices highlighted in the report include:

- using pork fat from the Guymon pork processing plant to produce biodiesel;
- reducing water use on company-owned farms by 40 percent from 2000 to 2005, and a goal to reduce water use by another 10 percent;
- pioneering the implementation of needle-free vaccination and treatment on all company-owned farms;
- composting solid waste from sow farms to produce nearly 700 tons of compost annually;
- conducting animal welfare audits on company-owned farms; and
- receiving the 2007 Pork Industry Environmental Steward Award for the Wakefield Farm's environmental program.

Both reports are available on the companies' Web sites: [www.tyson.com](http://www.tyson.com) and [www.seaboardfoods.com](http://www.seaboardfoods.com). **R**

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## Refrigerated Storage for the Rendering Industry





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## The Realities of Research

The realities of research rest in the eyes of the beholder. Perhaps a review of research expectations would be more appropriate for a discussion of research in general. Scientists have differing expectations and realities for research as compared to an individual company or an industry. However, research is basically the diligent search, inquiry, investigation, and study to discover new facts.

All research must be entered into with the reality that all expectations are not always realized. Scientists tend to focus on the basic principles of exploring and establishing facts to prove and defend a hypothesis. Business executives are most interested in creatively applying those answers into new products, applications, and marketing advantages. Thus, in today's complex world, a synergistic relationship must be established for the basic and applied research interactions. In the corporate arena, these interactions and expectations are well established via research and development divisions.

Research directed at fulfilling the needs and wants of an industry requires a great degree of synergism. When that industry represents numerous individual companies with varying capabilities and interests competing with each other, the situation becomes even more complicated. This synergism requires the basic researchers to have a thorough and complete understanding of the industry. In the case of rendering, this becomes complex and is a continual process.

The realities are that the general public is very naïve in understanding each raw material and its specialized processing systems, operating techniques, and quality standards associated with rendering. Certainly only a comparatively few scientists have that basic knowledge. The same can be said for regulators and legislators. Having been previously described as the "invisible industry," rendering has evolved into a more appreciated industry for its essential contribution to animal agriculture. Its research needs have also

evolved as markets shift due to changes in animal feeding practices, regulatory influences, and competition from synthetic petroleum-based products and other industrial chemical substitutes.

A major transitory event became evident in November 1986 with the diagnosis of a new disease in cattle: bovine spongiform encephalopathy (BSE). Subsequently, the rendering and feed industries have adapted to the 1997 Food and Drug Administration feed rule that prohibits animal proteins derived from ruminant animals to be used in feed intended for cattle and other ruminants. An amendment to that rule to prohibit certain cattle-derived tissues in the food or feed of all animals was proposed in October 2005 and officially published April 25, 2008.

The rendering industry realized that its historical research programs were heavily oriented towards animal nutrition and biofuel initiatives and there was a new need for rendered animal co-products research into non-food, non-feed applications. This prompted the Fats and Proteins Research Foundation (FPRF) to establish a policy to direct 75 percent of its resources to projects with alternative application objectives while reserving 25 percent for focused multi-species nutrition studies.

In 2005, the industry, via FPRF, entered into a new era of commitment to secure a scientific basis for exploring alternative uses and economic utilization of animal co-product tissues. The industry conducted an intensive negotiation process with a number of private research institutes and the reality became apparent that the industry was not prepared for the required economic investment needed for sponsoring dedicated research through a private research institute. A further reality of committing to a private research institute was that the industry's intellectual property benefits derived from research would be in jeopardy. A dedicated search followed with a number of individuals on FPRF's Board of

Directors discussing the "center concept" with numerous land grant institutions. Clemson University stepped up to the challenge and the synergistic, leveraged Animal Co-Products Research and Education Center (ACREC) in Clemson, SC, was the result of the industry's search for a centralized research center.

Another reality of research is that it requires commitment and a sustained investment. There is a cost to conduct quality research. However, from an industry perspective it must be considered as an investment. Numerous companies and industries invest a significant percentage of gross income to research and development programs as a necessary cost of doing business. The appropriate allocation of research investments for an industry is not known, but an industry that understands the business principle that "pennies and pounds add up to millions" and their past investment in research, as is the case for rendering, certainly understands its importance.

The industry has been quoted as adding up to \$2 billion in value to the North American animal production sector. Thus, the partnering with a world-class land grant university with a heritage of providing animal research and extension roles for contributing value-added guidance to a common industry is arithmetically positive. Clemson University has focused on the agriculture segment since 1889. The rendering industry has served the livestock industry for nearly 200 years. Thus, the two entities share a common and historic background and during its initial years of the Clemson University and FPRF partnership, ACREC has been well-grounded in its mission.

Clemson University is unique in a number of its attributes. It is somewhat smaller when compared to other land grant institutions. Current enrollment is 17,500 with a graduate/professional enrollment of 3,315. Its uniqueness focuses on its commitment to

an interdisciplinary education principle with a student-faculty ratio of 14-to-1, and programs designed to culture intellectual curiosity.

During the development and subsequent formation of ACREC, the student body and faculty had an overall knowledge of rendering and its importance to animal agriculture that far exceeded nearly every other North American campus. The campus reflects an appreciation for research as being the engine that drives economic development. Its executive officers convey the covenant mission of being responsible for teaching, research, and extended public service. In fact, research is ever present in nearly all of Clemson University's promotional, recruiting, and academic materials and activities. And certainly ACREC has become a very unique, collaborative enterprise in which cooperatively the rendering industry and Clemson University can advance the science and technology of animal co-products via research priorities for improved and new use applications. It remains the exclusive research center in the world with the mission focused exclusively to animal co-products. Similarly, Clemson University's executive officers, its ACREC faculty, researchers, and students are vehement in their dedication for its success.

At Clemson, 36 faculty and an equal number of graduate students have conducted ACREC research projects that use the resources of 30-plus university laboratories. Thus, the financial leverage provided within the collaborative arrangement can be quantified. A conservative estimate of the total expenses for the inaugural 2005-2008 years of operation have accounted to \$1.5 million, of which FPRF's investment has been \$528,500, or approximately 30 percent. The university has been able to acquire an additional \$264,000 in equipment and supplies for the laboratories used in part for ACREC projects.

As was referenced earlier, there is a cost of equipping and conducting research. Clemson University's current operating budget under the direction of Dr. Doris R. Helms, the provost/vice president for Academic Affairs, is \$540 million, with an additional \$141 million derived from grants/contract/funding. Thus, the business of education and research at the ACREC home base

totals more than \$680 million. This is an investment that requires continuous review processes from all entities to make evaluations for the most effective use of the leveraged resources: financial, personnel, and facilities.

It is likewise important for ACREC to be continuously reviewed and evaluated. In order for it to come of age, an enhanced transparency is encouraged. The enhancement for effective communication of the priorities from the industry's members is a distinct necessity. The researchers need an understanding of the rendering industry and its issues, needs, and opportunities in order to successfully bring research to an applied conclusion.

The student body and graduate student researchers are transient, therefore education about the business of rendering must be an ongoing process. However, the educational process will become exponential as those students leave and educate others about the rendering industry. Clemson University is developing numerous unique new programs directed at undergraduate students to teach them to become problem solvers. These "creative inquiry groups" spend multiple semesters investigating specifically assigned questions. These projects provide an excellent opportunity for the rendering industry to pose its questions and to find the next generation of employees.

The research proposal projects for ACREC likewise require the issues and objectives to be thoroughly understood. Effective collaborative communication of expectations is necessary for end results to meet the established objectives. Quality research requires that well-articulated expectations of the final work and realistic time schedules be established. Research can be a slow process and when results/conclusions do not proceed as anticipated, the researcher must create another path to find a solution. Effective and timely communication for variations from the expectation are important components of harmonious collaboration.

It is important that both industry and researcher are compatible with the agreed-upon project objectives, methodology, and proposed timetable. Terminated and non-completed projects are not acceptable conclusions to research investments, while completed projects with unexpected conclusions are realities of research. Research delays and unanticipated difficulties do occur. Within the respect for intellectual property constraints, a greater transparency of research progress, final reports, and an interpretation for the value-added applications could greatly enhance the value of ACREC in the "eyes of the beholder." Investors need constant

*Continued on page 37*



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## Responding to an OSHA Inspection

*Editor's Note – Mark A. Lies II is a labor and employment lawyer and partner with the Chicago, IL, law firm of Seyfarth Shaw LLP. Legal topics provide general information, not specific legal advice. Individual circumstances may limit or modify this information.*

*This is part one in a series on OSHA inspections.*

Fortunately, most employers will likely never be involved in an Occupational Safety and Health Administration (OSHA) inspection. For those employers who do become involved, the initial response can range from mere annoyance to sheer panic. Unfortunately, if the employer does not respond appropriately from the outset there is a potential for waiver of important legal rights as well as civil citations, and if there has been a fatality, potential criminal liability. This article (part one in a series) will identify a general strategy that can be utilized at the outset of the inspection. Subsequent articles will discuss recommendations once the inspection has commenced.

### Outset of Inspection

When OSHA seeks to conduct an inspection it must have legal probable cause to do so. Thus, when the inspector arrives and announces his or her intent to conduct an investigation, the employer representative should be prepared to ask the inspector for his credentials and then inquire as to the basis for the inspection before agreeing to allow the inspection to proceed.

Typically, the inspector will inform the employer representative that he is there because:

- there has been a written employee complaint filed alleging a hazard;
- there has been an accident (in some instances the employer must notify OSHA of an accident within eight hours when there has been an employee fatality or three or more employees injured and who have required medical treatment in one incident); or

- the agency has selected the employer for an inspection based upon a program developed by the agency to address or target a specific workplace hazard (e.g., lead, asbestos, forklifts, etc.).

The compliance officer is required to inform the employer as to the basis for the inspection. In the event that it involves an employee complaint, the employee representative should ask for and is entitled to receive a copy of the written complaint (without the name of the complaining employee). Likewise, the employer representative should ask for information on the specific programmed inspection that the inspector is relying upon.

Once this information is provided, and before deciding whether to allow the inspection, it is critical for the on-site employer representative to immediately contact senior management as well as legal counsel, particularly if there has been an accident involving personal injury or significant property damage, to strategize on whether to allow the inspection and, if so, who the employer will select for its walkaround team and what the scope of the inspection will be at the site. The employer representative should inform the inspector that this contact is occurring and that the employer will respond in a timely fashion as to whether it will voluntarily (without a search warrant) allow the inspection. The inspector is required to wait a “reasonable time period” before commencing the inspection to allow this communication to occur with senior management and the employer to designate its walkaround representatives.

### Evaluating Probable Cause

The employer’s senior management, now confronted with the potential inspection and the basis (i.e., employee complaint, accident, programmed inspection), must decide whether to allow the inspection and do so in a timely manner. In deciding, management should consider the following matters:

- Employee complaint:
  - Is the complaint valid?
  - Does it identify the correct workplace, employer, or equipment?
  - Does it identify a hazard that in fact exists at the worksite?
- Accident:
  - Did an accident in fact occur involving the employer?
  - Is the accident scene still in existence or have the conditions changed? (Note: If the accident involved a fatality, the scene is considered immediately “frozen” and cannot be changed until OSHA commences its inspection and “releases” the site. The only exception is to allow the employer to shut down equipment that may create a hazard to employees; to respond to a hazardous materials incident, such as a spill or release; or to remove human bodily remains resulting from the accident.)
- Programmed inspection:
  - Does the employer fall within the criteria for the programmed inspection (i.e., does the hazard exist at the workplace)?
  - Does the employer have another basis to challenge its selection under the program criteria (e.g., its accident, injury, or illness statistical data fall below the criteria for authorizing the agency to conduct a programmed inspection and thus the employer should be exempted from the inspection)?

The process of evaluating the foregoing inspection bases should include the employer’s safety and health professionals, senior operations personnel, and, particularly when there has been a fatality, serious personal injury, or significant property damage, legal counsel.

### Scope of Inspection

Assuming that the employer has decided to allow an inspection on a voluntary basis (the employer also has the option to demand a search warrant from the agency, a technical legal decision that must involve legal

counsel), the next issue will involve the scope of the inspection, that is, where will the inspector be permitted to go at the worksite and what operations will the inspector be allowed to view. This determination is also critical since if the employer allows the inspector broader access than would be allowed to evaluate (1) the hazards identified in the employee complaint, (2) the accident site area, or (3) hazards that are outside the scope of the hazard referenced in programmed inspection, the employer is subject to citations for anything that the inspector observes because the employer voluntarily allowed a broader inspection to occur. Whatever the inspector observes during the walkaround that is in "plain view" is subject to citation.

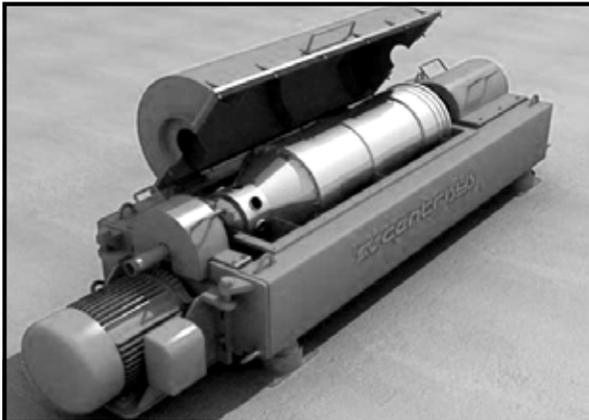
Of necessity, this employer determination is on a case-by-case basis considering the current worksite operations and the basis for the agency's inspection. Once this determination has been made by management, which should occur expeditiously, it will be necessary to communicate this determination to the inspector in order to reach an informal agreement, if possible, regarding the scope of the inspection.

### Conclusion

It is apparent that the initial employer's assessment of the bases for the proposed inspection must be initiated by the on-site employer representative immediately and must involve appropriate senior management and legal counsel in the proper circumstances. Unless the employer has preplanned for this contingency with the on-site representative who will initially interface with the inspector as indicated above, the employer's ability to control the inspection will be lost through confusion and indecision.

This article has been limited to the initial aspects of responding to OSHA inspections. Future articles will address the inspection as it proceeds, including the physical inspection, evidence gathering, employee interviews, document production, and evidence preservation. **R**

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# People, Places &...

## Animal Ag Group Elects Officers, Board Members

Dr. Leonard Bull, professor of animal science and associate director of the Animal and Poultry Waste Management Center at North Carolina State University, was elected chairman of the National Institute for Animal Agriculture (NIAA) Board of Directors during the group's annual meeting in early April.

Other individuals elected to NIAA's five-member executive committee were:

- Dr. Robert Fourdraine, chief operating officer, Wisconsin Livestock Identification Consortium, vice chairman;
- Dr. Rafael Seneriz, researcher, Elanco Animal Health, secretary;
- Kevin Kirk, Michigan Department of Agriculture, treasurer; and
- Dr. Mark Engle, director of health assurance and transportation, PIC North America, member at large.

Five new members were elected to serve on NIAA's board of directors, including:

- John Adams, beef producer and president of Rock Croft Farm Services;
- Dr. Tony Forshey, state veterinarian, Ohio Department of Agriculture;
- Dr. David Meeker, vice president, Scientific Services, National Renderers Association;
- Dr. Richard Meiring, clinical professor, Veterinary Pathobiology and Population Medicine, Mississippi State University College of Veterinary Medicine; and
- Joy Phillippi, pork producer and immediate past president of the National Pork Producers Council.

NIAA's 232 members include those that have a vested interest in animal agriculture, including national and state livestock, poultry, and equine organizations as well as veterinarians, government regulatory personnel, academia, researchers, extension specialists, producers, and allied industry organizations.

## Cargill Won't Rebuild Damaged Plant

After suffering an Easter Sunday fire that heavily damaged its 150,000-square-foot meat processing plant in Booneville, AR, Cargill Value Added Meats (CVAM) has decided not to rebuild the facility and will instead produce meat products at other Cargill facilities.

CVAM said that building a new plant would take up to 22 months, much longer than the company originally estimated in the days after the fire, which was reportedly started from sparks caused during welding in or near a freezer. No injuries or fatalities were reported.

Some of the Booneville production is already being done at other facilities. CVAM is looking at installing new equipment at other plants to produce the product formerly done at Booneville, which employed approximately 800 workers. The company is encouraging employees to apply at other Cargill facilities.

## FDA to Hire Thousands of New Workers

The Food and Drug Administration (FDA) is looking for a few good biologists, chemists, medical officers, mathematical statisticians, and investigators to help meet the agency's responsibilities to assure the safety and/or efficacy of human and veterinary drugs, biological products, medical devices, food, cosmetics, and products that emit radiation.

In fiscal year 2008, FDA needs to fill more than 600 new positions and to backfill over 700 others to implement the FDA Amendments Act of 2007, the Food Protection Plan, and the Import Safety Action Plan, nearly triple the number of people hired from 2005-2007.

The Office of Personnel Management (OPM) has granted direct-hire authority to the FDA. Direct-hire authority is an appointing authority OPM can give to federal agencies for filling vacancies when a critical hiring need or severe shortage of candidates exists. It

expedites hiring of qualified candidates by eliminating certain rating and ranking preferences. Qualified candidates could be on the job in as little as three weeks.

The occupations are medical officers, consumer safety officers, chemists, nurse consultants, biologists, microbiologists, health/regulatory/general health scientists, mathematical statisticians, epidemiologists, pharmacologists, pharmacists, and veterinary medical officers. Many of these positions are located in the Washington, DC, metropolitan area, specifically Rockville, Silver Spring, and College Park, MD, as well as across the country in the FDA's five regions, 20 districts, more than 179 resident posts, and the newly created FDA offices overseas.

The FDA will be participating in and holding job fairs throughout the United States, which will be posted on their Web site at [www.fda.gov/jobs/jobfairs08.html](http://www.fda.gov/jobs/jobfairs08.html). For general information and to apply for one of the positions listed above, submit questions and electronic curriculum vitae with a cover letter via e-mail to [joinourteam@fda.gov](mailto:joinourteam@fda.gov).

## JBS Completes Purchase of Tasman Group

JBS S.A. has completed its acquisition of the Australian-based Tasman Group, a multi-protein processor. As a result of the \$150 million deal, JBS Australia has a total of 15,000 employees and 15 production units, including slaughterhouses for cattle and small ruminants (sheep and calves), with a daily slaughter capacity of 8,500 head of cattle and 16,500 head of small ruminants.

The acquisition comes "at a time when Australian beef exports have been doing exceptionally well, increasing their sales to the EU [European Union] and other markets," JBS said in a statement. The company is still in the process of acquiring U.S. meat processors Smithfield Beef Group and National Beef Packing Company, LLC, announced in early March.

## Grain and Feed Group Elects Officers

The National Grain and Feed Association (NGFA) elected Thomas Coyle, general manager of Chicago and Illinois River Marketing, LLC, as chairman during its 112th annual convention in late March. The 900-member-company organization elected Hal Reed, president of the Grain and Ethanol Group at The Andersons, Inc., as its first vice chairman. David R. Hoogmoed, vice president, feed, for Land O'Lakes Purina Feed, LLC, was elected NGFA's second vice chairman.

## Marmer Retires After 38 Years of Research

Dr. William N. Marmer, research leader of the Fats, Oils, and Animal Coproducts (FOAC) Research Unit, Eastern Regional Research Center (ERRC), Wyndmoor, PA, retired on March 31, 2008, after nearly 38 years of service. ERRC is part of the U.S. Department of Agriculture's Agricultural Research Service.



Marmer was appointed to ERRC's Animal Fat Laboratory in 1970 where he investigated O-acylhydroxylamines as nitrogen transfer agents to lipids and then isopropenyl esters as agents to impart water repellency to paper and cotton. In 1972 he continued at ERRC as a fellow of the rendering industry's Fats and Proteins Research Foundation, during which time he contributed to the development of soap-based, hard-water-tolerant laundry detergents.

Marmer's status as a career scientist at ERRC began in 1975. For the next 10 years, he worked on lipid extraction and characterization, co-developing the dry-column extraction technique and introducing microcolumn derivatization using immobilized enzymes. He was the ERRC delegate to Japan's Nippon Oil and Fat Company (Nihon Yushi) for a one-month stay at the company's facility near Osaka. Over eight years, Nippon stationed four of its scientists at ERRC to work in the Animal Fat Laboratory.

In 1985, Marmer was assigned as lead scientist of wool research within the Animal Biomaterials Research Unit and charged with initiating a research project to improve the quality of and develop new applications for domestic wool. Starting in 1987, he served concurrently as research leader of the then-named Hides, Leather, and Wool (HLW) Research Unit; the hides and leather program at ERRC remains the only such research in the federal sector. In 1993, Marmer's responsibilities doubled with the acquisition of a large program on fats, oils, and lipids. The HLW unit became the FOAC in October 2001.

Marmer has managed new research thrusts in biodiesel, biopolymers, and surfactants from fermentation of fats, oils, and their co-products, and non-feed applications of rendered proteins. He is the author or coauthor of 201 papers, including 14 patents, and currently serves as president of the American Leather Chemists Association. Marmer plans to return to ERRC as a collaborator.

Marmer grew up in Philadelphia,

PA, and received a bachelor's degree in chemistry from the University of Pennsylvania and a PhD in organic chemistry from Temple University.

## Smithfield Announces Management Changes

Smithfield Foods, Inc., has named George H. Richter president and chief operating officer of its pork group, a new position. The presidents of Smithfield Foods' five pork processing companies will report to him.

A 34-year veteran of the pork industry, Richter has spent his entire career with Farmland. He has served as president of Farmland Foods, Inc., since Smithfield acquired the company in October 2003. Previously, he was president of the pork division of Farmland Industries and a member of the senior management council.

In other actions, James C. Sbarro has been named president of Farmland. He has 25 years experience in the food

*Continued on page 37*

## Corrections

Several incorrect listings appeared in the National Renderers Association Membership Directory in the April 2008 issue of *Render*. We apologize for the errors and provide the corrected listings below, which have been incorporated into the online version of the directory available at [www.rendermagazine.com](http://www.rendermagazine.com):

### Active Members

#### JBS Swift and Company

Headquarters  
1770 Promontory Circle  
Greeley, CO 80634-9039  
Contact: Randy Geist  
Phone: 970-506-7620  
Fax: 970-506-8320  
E-mail: [randy.geist@jbsswift.com](mailto:randy.geist@jbsswift.com)  
Products: TG,RF,HI,MBM,BM,EX  
Region: Western

#### Patrick Cudahy, Inc.

Smithfield Foods, Inc.  
One Sweet Apple-Wood Lane  
Cudahy, WI 53110  
Contact: Charlie Brah  
Phone: 414-744-2000, ext. 214  
Web site: [www.patrickcudahy.com](http://www.patrickcudahy.com)  
E-mail: [charliebrah@patrickcudahy.com](mailto:charliebrah@patrickcudahy.com)  
Products: RF,SF,Deodorization,  
Hydrogenation  
Region: Central

### Associate Members

#### Haarslev, Inc.

9700 NW Conant Avenue  
Kansas City, MO 64153  
Contact: Hans Nissen  
Phone: 816-799-0808  
Fax: 816-799-0812  
Web site: [www.haarslev.com](http://www.haarslev.com) or  
[www.atlas-stord.com](http://www.atlas-stord.com)  
E-mail: [haarslev@haarslev-usa.com](mailto:haarslev@haarslev-usa.com)  
Region: Central, Western

#### Renewable Energy Group

416 S. Bell Avenue  
P.O. Box 888  
Ames, IA 50010  
Contact: Dave Elsenbast  
Phone: 515-239-8117 or  
515-450-6314  
Web site: [www.regfuel.com](http://www.regfuel.com)  
E-mail: [dave.elsenbast@regfuel.com](mailto:dave.elsenbast@regfuel.com)  
Products: Biodiesel production,  
biodiesel feedstock procurement,  
and biodiesel marketing  
Region: Central

# Mark Your Calendar

## June

**Feed Industry Institute**, June 16-19, Rosemont, IL. Contact the American Feed Industry Association at (703) 524-0810, or e-mail [afia@afia.org](mailto:afia@afia.org).

## July

**American Dairy Science Association and American Society of Animal Science 2008 Joint Annual Meeting**, July 7-11, Indianapolis, IN. Log on to <http://adsa.asas.org/meetings/2008>.

**National Cattlemen's Beef Association (NCBA) Summer Conference**, July 15-19, Denver, CO. Contact the NCBA Convention and Meetings Department at (303) 694-0305, or log on to [www.beefusa.org](http://www.beefusa.org).

## August

**Association of American Feed Control Officials 2008 Meeting**,

August 2-4, Nashville, TN. A pet food workshop will be held on August 1. Log on to [www.aafco.org](http://www.aafco.org).

**National Meat Association (NMA) Summer Conference**, August 21-23, Telluride, CO. Call NMA at (510) 763-1533, or log on to [www.nmaonline.org](http://www.nmaonline.org).

## October

**U.S. Hide Skin and Leather Association 29th Annual Convention**, October 2-3, Chicago, IL. Contact Susan Hogan at (202) 587-4250, or log on to [www.ushsa.org](http://www.ushsa.org).

**U.S. Poultry Protein and Fat Seminar**, Nashville, TN. Call (770) 493-9401, or log on to [www.poultryegg.org](http://www.poultryegg.org).

**Fats and Proteins Research Foundation Annual Meeting**, October 20-21, Laguna Niguel, CA. Call (703) 683-0155, or e-mail [renderers@nationalrenderers.com](mailto:renderers@nationalrenderers.com).

**National Renderers Association (NRA) 75th Annual Convention**, October 21-24, Laguna Niguel, CA. Call NRA at (703) 683-0155, or e-mail [renderers@nationalrenderers.com](mailto:renderers@nationalrenderers.com).

## November

**International Dairy Federation World Dairy Summit and Exhibition Mexico 2008**, November 9-14, Mexico City, Mexico. Log on to [www.wds2008mexico.com](http://www.wds2008mexico.com).

*Have an upcoming event or meeting? Send event date, name, location, and registration contact information to Render, 2820 Birch Avenue, Camino, CA 95709, fax (530) 644-8429, or e-mail [editors@rendermagazine.com](mailto:editors@rendermagazine.com).*



## WEB SITE ADDRESSES

Association or Agency	Web Address
American Fats and Oils Association	<a href="http://www.afoaonline.org">www.afoaonline.org</a>
American Feed Industry Association	<a href="http://www.afia.org">www.afia.org</a>
American Meat Institute	<a href="http://www.meatami.com">www.meatami.com</a>
Animal and Plant Health Inspection Services	<a href="http://www.aphis.usda.gov">www.aphis.usda.gov</a>
Animal Protein Producers Industry	<a href="http://www.nationalrenderers.org/biosecurity">www.nationalrenderers.org/biosecurity</a>
Association of American Feed Control Officials	<a href="http://www.aafco.org">www.aafco.org</a>
Australian Renderers Association	<a href="http://www.ausrenderers.com.au">www.ausrenderers.com.au</a>
Canadian Renewable Fuels Association	<a href="http://www.greenfuels.org">www.greenfuels.org</a>
Center for Veterinary Medicine	<a href="http://www.fda.gov/cvm">www.fda.gov/cvm</a>
Fats and Proteins Research Foundation	<a href="http://www.fprf.org">www.fprf.org</a>
Food and Drug Administration	<a href="http://www.fda.gov">www.fda.gov</a>
Food Safety and Inspection Service	<a href="http://www.fsis.usda.gov">www.fsis.usda.gov</a>
Foreign Agricultural Service	<a href="http://www.fas.usda.gov">www.fas.usda.gov</a>
National Biodiesel Board	<a href="http://www.biodiesel.org">www.biodiesel.org</a>
National Cattlemen's Beef Association	<a href="http://www.beef.org">www.beef.org</a>
National Grain and Feed Association	<a href="http://www.ngfa.org">www.ngfa.org</a>
National Pork Producers Council	<a href="http://www.nppc.org">www.nppc.org</a>
National Renderers Association	<a href="http://www.nationalrenderers.org">www.nationalrenderers.org</a>
National Renewable Energy Lab	<a href="http://www.nrel.gov">www.nrel.gov</a>
Occupational Safety and Health Administration	<a href="http://www.osha.gov">www.osha.gov</a>
Pet Food Institute	<a href="http://www.petfoodinstitute.org">www.petfoodinstitute.org</a>
Render Magazine	<a href="http://www.rendermagazine.com">www.rendermagazine.com</a>
U.S. Animal Health Association	<a href="http://www.usaha.org">www.usaha.org</a>
U.S. Department of Agriculture	<a href="http://www.usda.gov">www.usda.gov</a>
U.S. Poultry and Egg Association	<a href="http://www.poultryegg.org">www.poultryegg.org</a>

industry and has been Farmland's senior vice president of sales, marketing, research, and development since 1999.

Joseph W. Luter IV has been named an executive vice president of Smithfield Foods and will concentrate on sales and marketing. Luter has served in several positions within Smithfield Foods since 1993, most recently as president of Smithfield Packing Company.

Stepping into the position of president of Smithfield Packing Company is Tim Schellpeper, who was serving as senior vice president of operations at Farmland. A 21-year veteran in the pork industry, Schellpeper has been with Farmland for 17 years.

## Premium Standard Farms Founder Dies

Dennis W. Harms, founder of Premium Standard Farms (PSF), died unexpectedly in late April while traveling on business. He was 56 years old.

Harms began his long and distinguished career in agribusiness with Cargill in 1973. He worked for Cargill and Central Soya before founding PSF in 1988. Following his career at PSF, he founded Stonecreek Management, was president of PIC North America, and founded Spectrum Agribusiness.

## Sanderson Farms Picks Site for Poultry Complex

Sanderson Farms, Inc., has selected sites in Kinston, NC, for construction of a new feed mill, poultry processing plant, and hatchery. These facilities will comprise a state-of-the-art poultry complex with the capacity to process 1.25 million birds per week for the retail chill pack market. At full capacity, the complex will employ approximately 1,500 people, require 130 contract growers, and be equipped to process and sell 6.7 million pounds per week of dressed poultry meat.

Sanderson Farms expects to invest approximately \$126.5 million in the new complex and anticipates that associated contract growers will invest an additional \$98 million in poultry production facilities. Construction is expected to begin this summer, with initial operation scheduled to begin during the fourth fiscal quarter of 2009. **R**

appraisals for their investments, while researchers need to be rewarded for the work they are performing. In the academic arena, the communication of their research contributions becomes an important part of their rewards.

An enhanced dissemination of ACREC's benefits and importance to animal agriculture and its co-product utilization is warranted. This promotional, identity awareness, and informational transfer process must be a shared responsibility for all collaborative entities. Perhaps a communication task force could be established to enhance the process. Discussions were held at the recent FPRF spring meetings to explore the benefits of re-structuring the research committee structure to strengthen the communicative process.

Without doubt, the investment for conducting research is increasing. The reality is that the cost is increasing for everything that possesses a price tag. The current cost for funding a PhD student stipend with a tuition waiver is approximately \$30,000 per year, which usually requires a three-year commitment. These commitments necessitate that ACREC projects be prioritized with considerable scrutiny. Cutting edge researchers are in high demand for large grant studies. Grants that do not fully fund a graduate student

generally will not take priority in a modern university research laboratory. The initial ACREC projects have not been, in most cases, fully funded projects. Therefore, decisions must be made in establishing ACREC projects. Is it a better investment to fully fund a few high priority projects or to partially fund an increased number that may require longer timetables?

Research, for it to be utilized, must be transparent, accountable to its stated objectives both negatively and positively, and validated by the peer review process. Thus, ACREC requires continuous review processes from all entities to evaluate the most effective use of resources. The ACREC organizational structure was founded on leveraging financial, personnel, and facilities. A "focus team" of interdisciplinary scientists is conducting basic research based on the rendering industry's guidance to deliver applicable results and to add value to its products. ACREC's performance to date warrants that the world needs to be more aware of its accomplishments and its membership appropriately appraised. **R**

*Portions of this material were abstracted from presentations by Dr. Doris Helms, provost/vice president of Academic Affairs, and Dr. Annel Greene, professor and director of ACREC, Clemson University, Clemson, SC, at the FPRF April 2008 meetings in Montreal, QB, Canada.*

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# Letters

*Our goal at Render is to provide our readers with the most complete and timely information on the rendering and allied industries. Occasionally, Render receives comments about the topics covered in each issue and from time to time, as space allows, we like to share those comments. We wish to thank those who took the time to let us know how we're doing.*

**Dear Editor,**

The magazine has fantastic news, but mostly it advertises machinery companies. It would be grateful if it had advertising of rendering companies or exporter companies of rendering products. Sometimes we are looking [for] their product details, however, unable to get it here.

Loani Lili  
Kelden Co.  
Australia

*In every issue of Render, there is at least one rendering company advertiser. Also, each April, Render publishes the membership directory of the National Renderers Association, which includes most of the renderers (active members) located in the United States and Canada as well as rendered product brokers (associate members). The directory is also posted on Render's Web site at [www.rendermagazine.com](http://www.rendermagazine.com). We hope this helps.*

**Dear Editor,**

Found some ads that led me to the equipment I needed.

Bob Hiffeman  
Council Bluffs, IA

**Dear Editor,**

We changed the name of our business and our address. Could you please make note of this with our subscription, we would not want to miss a single issue of *Render* magazine! Your articles on biodiesel are better than ones in *Biodiesel Magazine* (please don't tell them I said so, though...)!  
Name withheld upon request

**Dear Editor,**

Excellent magazine. The topics are very useful and interesting. Keep the magazine coming! Great job!

Christopher J. Miller  
Miller and Sons  
Cortland, OH

**Dear Editor,**

I am retired. I get a few industry mags, but *Render* is my favorite and most informative. And the biodiesel is changing the grease and fat industry. I got old too soon. Thanks.

James Hoelzeman  
Tampa, FL

**Dear Editor,**

Great job! Keeps me in touch with the industry. We especially love to see pictures of people we know in the industry. Thank you!

Jim and Amy Gieszl  
Maricopa Land and Cattle Co.  
Phoenix, AZ

**Dear Editor,**

I enjoyed the February *Render* as it addresses a new and growing segment of our industry. Fred Wintzer and I were the original rendering industry's

representatives to the biodiesel board meetings and attended many alternative fuels forums.

I appreciate *Render* today as much as the first issue. The editors of *Render*, its advertisers, PCRA [Pacific Coast Renderers Association], and NRA [National Renderers Association] deserve much credit for the significant improvement in the industry's image.

Dr. Fred Bisplinghoff  
Fort Myers, FL

**Dear Editor,**

*Render* is an excellent publication not only for those in the trade for also for anyone in the general readership who may want to keep abreast of developments in this sector.

Carols F. Munoz  
Philippines

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



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fats and recycled cooking oils.

"We are pleased with the progress at the Seneca, IL, refinery," said Kenneth T. Hern, chairman and chief executive officer of Nova. "Plant commissioning is proceeding as planned. The refinery has successfully demonstrated conversion of feedstocks with free fatty acid levels above six percent." Work on train two was expected to begin by the end of May and train three was due to follow shortly thereafter.

Nova also announced that repair work on the Scott Petroleum Corporation refinery is proceeding as planned after one of the hot oil pumps suffered a seal failure during operation. The resulting hot oil spray briefly ignited until the pump could be shut down and response measures implemented. The collateral damage was minimal and confined to the hot oil skid unit. The Scott refinery is scheduled to restart in mid-June, subject to timely shipment and receipt of equipment.

## Ohio Plant Back Online After Explosion

American Ag Biofuels has resumed production after an explosion in early January damaged part of its biodiesel plant in Defiance, OH, and injured four employees. Fire officials believe a spark from the loading facility's overhead garage door ignited glycerin vapors released from a nearby storage tank that was left open. Officials said safety valves on the tanks operated as designed and prevented more serious damage.

The company is working to design and build a safer loading facility, which should be operational this summer.

## Students Awarded for Green Solutions

The Environmental Protection Agency's (EPA's) People, Prosperity, and the Planet (P3) competition plants the seeds for future technologies that are both environmentally friendly and profitable, and among this year's winners are several biodiesel projects.

The P3 competition is held at EPA's annual National Sustainable Design Expo where Drexel University, Philadelphia, PA, students showcased their winning method of producing biodiesel from high

free fatty acid oils using a two-phase reactor in which methanol vapor bubbles through hot oil and the by-product water is removed continuously as a vapor.

The other biodiesel winner in the competition was Loyola University of Chicago, Chicago, IL, where students will construct a lab to produce biodiesel from vegetable oil waste from the cafeteria. The lab will act as an educational tool for students as well as the general public, and the fuel produced will be used to power inter-campus shuttle buses as well as other university vehicles.

## Welders Killed in Explosions

According to news reports, 33-year-old Kevin David Lodge was welding at the top of a 32-foot biodiesel settling tank at Western Biodiesel, Inc., in High River, AB, Canada, in mid-April when it exploded, killing him. Initial reports indicate the fumes in the tank may have ignited. Lodge was a subcontractor working at the facility. Alberta Occupational Health and Safety is investigating the deadly explosion, which is expected to take several months.

In a separate incident in mid-May, another welder died as he was adding a methane line to Greenlight Biofuels' biodiesel plant in Princess Anne, MD. Local news reported the welder hit a gas line, causing an explosion. A second welder was injured. Both men were contractors. Names of the victims were not available at press time.

## XcelPlus Global Acquires Glycerin Technology

XcelPlus Global Holdings, Inc., has acquired a new alternative energy fuel technology and process that enables glycerin, a by-product from biodiesel production, to be converted to a fuel suitable for use in turbine engines.

Gly-Clene, as the product is called, was developed by Maverick Biofuels as a new alternative energy source. The fuel can be made from any crude glycerol, regardless of the feedstock, including yellow grease. The company claims that Gly-Clene has the ability to power up turbine engines for electricity production or any other non-aircraft use associated with turbine engines, and can also be used to heat fluid bed reactors as it also performs well in oil gun furnaces. **R**

# Then...

*"I've just received the first copy of Render magazine and wish to thank you for putting me on your mailing list. Render is a first class publication both in format and content. It should prove to be a real benefit both internally and as a public relations tool for renderers."*

David Grandstaff  
Grandstaff Rendering  
March 1972

# ...Now

*"Excellent magazine. The topics are very useful and interesting. Keep the magazine coming! Great job!"*

Christopher J. Miller  
Miller and Sons  
June 2008

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**George Nichols – Fabrication Shop Supervisor**

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