The Official Publication of NARA

October 2025

# Render

# The Water Issue

## Rendering's Hidden Product: Water

## Understanding and Controlling Odors

## GTech Practices the Art of Staying Nimble

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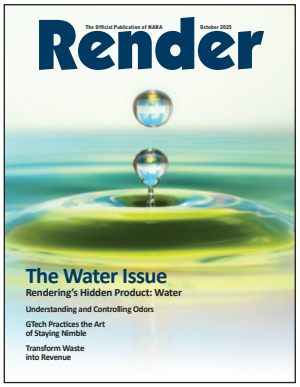


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# Rendering Runs on Relationships

As the industry prepares to meet up in Amelia Island, Florida, later this month for the 92nd North American Renderers Association annual convention, I'm reminded of what someone told me at my first NARA convention four years ago when I was introduced as the new editor.

They told me rendering is a small world and a lot of the leadership in these different companies has essentially grown up together. Some of them come from family-run companies, others just have been in the business for a long time. They are a tight-knit group, but once you're in — you're in. I have found that to be true, and it's honestly one of the aspects I really love about working in this industry.

Every industry says it's a people business, but that's especially so for rendering. If you want to do business with a renderer, you've got to build a relationship with them and that takes time. Just going to one meeting or running one ad in *Render* won't cut it. You have to keep coming back year after year — and run ads in a regular fashion — to build recognition and rapport.

Sooner or later, that will pay off in getting new and hopefully loyal customers, not to mention some new friends.

Networking is, of course, one of the biggest reasons people attend any industry event. NARA's convention draws the decision-makers and VIPs that everybody wants to meet. While you are at the meeting, if there is someone you want to connect with just ask someone to introduce you. These are friendly folks who are happy to help. And if you happen to be a first-timer, NARA is making a concerted effort this year to welcome you and make you feel at home.

On the other hand, if you've been to dozens of conventions and already know everybody, keep your eye out for the new folks with special badges and help them meet a few people. And while you are going from one company to another during the Table Top exhibit, do us a favor — if you've seen their ad in *Render* magazine, let them know it got your attention. See you soon! **R**

Sharla Ishmael
Editor/Publisher

By Tyson Redpath, The Russell Group


# EPA Delivers Good News

Flanked by members of Congress and standing at Christensen Farms with Sleepy Eye, Minnesota, as his backdrop, U.S. Environmental Protection Agency Administrator Lee Zeldin made an unusual announcement: that the EPA would be doing nothing. The head of EPA stood before those duly assembled to announce his agency — frequently maligned by farmers — would do nothing by not imposing additional wastewater discharge regulations on meat and poultry processing facilities.

Made as part of the Trump administration's "Powering the Great American Comeback Initiative," the announcement was immediately cheered by nearly every major livestock organization including the North American Renderers Association, National Chicken Council, National Pork Producers Council, National Turkey Federation and the National Cattlemen's Beef Association.

Started by EPA in President Joe Biden's final year in office, the agency had proposed regulations to revise existing wastewater and pretreatment standards for the meat and poultry products industry. These effluent limitation guidelines (ELGs) took aim at national, industry-specific wastewater regulations based on the performance of demonstrated wastewater treatment technologies (often called "technology-based limits"). Notably, the meat and poultry products industry — for ELG purposes — includes facilities that engage in meat and/or poultry slaughter, further processing or rendering.

Had the potential new rules on ELGs gone into effect, the costs for the rendering industry would have been enormous according to several analyses, meaning facility closures and job losses across the industry. The final decision announced by Zeldin reinforces the strong, effective relationships rendering facilities maintain with local wastewater officials and agencies to ensure discharged water meets or exceeds environmental standards.

## Courts Don't Share President Trump's Love of Tariffs

Most of President Donald Trump's tariff-first, tariff-often trade policy now sits in judgment before the U.S. Supreme Court after the D.C. Circuit Court of Appeals sided with a lower court ruling that invalidated the president's use of the International Emergency Economic Powers Act. The lawsuit challenging the tariffs was brought forth by VOS Selections, a New York wine and spirits company, and four small businesses making fish and tackle apparel, electronic kits, bicycles and plastic pipes.

The federal circuit court ruled at the end of August that the president overstepped his legal authority to establish his so-called "reciprocal tariffs," saying the authority to levy tariffs is a core congressional power. The decision stayed the repeal of the tariffs until Oct. 14, giving the Supreme Court time to decide whether it will hear the Trump administration's appeal.

At stake are nearly 70% of the tariffs imposed and potentially hundreds of billions of dollars, which may be refunded to importers and the companies that paid them. Those refunds could come via direct payouts, administrative claims or importer lawsuits, meaning a slow and contested process — prompting some in the finance industry to sell rights to those refund claims.

The Trump administration is pressing the Supreme Court to hear its appeal quickly, asking for oral arguments to be held in November. The bar for the Trump administration is high. The Supreme Court justices will be asked to overturn the findings of two lower courts rather than referee two disputing lower court decisions. If the high court decides to hear the case, a decision likely won't come until 2026 — meaning tariff relief by way of judicial order may not come until next year. **R**

# Rendering's Hidden Product: Water

*The rendering process is known for recycling animal by-products into all kinds of upcycled usages, but renderers also play a huge role in recovering and recycling one of our most critical natural resources — water.*

By Sharla Ishmael

Every schoolchild learns the mantra: reduce, reuse, recycle. Those three words are also at the very essence of the rendering industry, plus a couple more "r" words — recover and release. From the first candle and soap makers to today's renewable fuel producers, rendered fat is one of the two main products of rendering. The other big one, of course, is the protein used as feedstock for livestock, pets and aquaculture.

Because renderers recycle those fats and proteins from the inedible parts of the animals harvested for human consumption, the industry plays a vital role in the circular economy. What outsiders often overlook is how renderers sustainably manage vast water resources. In fact, it's estimated that rendering is responsible for reclaiming 3.7 billion gallons of clean water. That is the equivalent of 5,604 full Olympic swimming pools.

Renderers achieve that incredible amount of water conservation through five pathways — recovery, reusing, recycling, releasing and reducing.

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**Water** *Continued from page 7*

## Recovery

Along with fat and protein, water is trapped in over 62 billion pounds of renderable raw materials produced in the U.S. and Canada each year from farms, feedlots and processing facilities for cattle, hogs, sheep, chickens and turkeys. The rendering process of cooking those raw materials releases the water within these by-products. Dave Kaluzny, a longtime renderer with Kaluzny Bros. near Chicago, explains the process.

"The water comes out through evaporation, so you're cooking the raw materials hot enough that the water boils off," Kaluzny says. "The water is vented out of the cooker in a vapor and then it's condensed. From there, that water will go into the wastewater treatment system for that plant. Now it's mostly distilled water, but it's going to have some amines in it and things like that from the cooked product. But it's not going to have fats and proteins, it's strictly going to be a vapor.

"The condensation is drawn off the cooker by a vacuum unless there's enough pressure — then it'll just come off from the pressure. Either way it goes through a condenser," he adds. "Renderers use either a water-cooled or an air-cooled condenser to transform those vapors back down to water. Again, the water will drop out of the condenser and then go from there to the wastewater treatment system."

Kaluzny says it works the same way with processing grease. It can either be run through an evaporator and in doing so the water is boiled off, or the material is sent through a centrifuge.

"You'll have a three-phase centrifuge where it separates solids, water and grease due to three different gravitational pulls because they're different weights," Kaluzny explains. "So, you can get water out that way when it comes to grease, or you can let time and temperature let it separate on its own and pull it out that way. If you've still got a lot of moisture in it, you can boil it again, run it through a heat exchanger and boil off any more that might be in there.

"However it's done, all the water goes to the water treatment plant, whether it's from a condenser or centrifuge," he says. "You may have nuances in some plants where they might use it for wash water or something else, but eventually it's still going to end up in the water treatment plant."

## Reusing/Recycling

Jon Elrod works for Darling Ingredients as vice president of environmental affairs in North America. Recently, he helped the industry successfully advocate against the U.S. Environmental Protection Agency's proposed changes to guidelines for wastewater discharges from meat and poultry products (MPP) facilities under the Clean Water Act (see page 16 for more detail).

Ultimately, the EPA backed down in early September due to efforts from both sides affected, including businesses that fell within the MPP category (like renderers) and municipal water authorities that utilize the wastewater streams and say they already effectively regulate the MPP sector at their local levels.

At press time, the environmental nongovernmental organizations (eNGOs) whose lawsuit against EPA was the catalyst for those proposed changes, have since appealed the agency's decision not to move forward. All sides now await further litigation.

After the water is treated in a renderer's wastewater treatment plant, then it is discharged either down a pipe to a municipal publicly owned treatment works (POTWs) or into bodies of water like streams, rivers or lakes. As well, onsite land application of treated wastewater is another possibility.

"Some rendering facilities are located in areas capable of discharging to POTWs," Elrod explains. "In these instances, after appropriate on-site treatment, water is discharged into municipal sewer systems through direct connections, flowing just like other forms of wastewater to POTWs. This arrangement is typically formalized in an industrial discharge permit that prescribes monitoring, reporting and record-keeping requirements for each facility."

The wastewater that is discharged to POTWs also creates fees they collect from renderers and industrial users that are an important source of revenue for them.

On the other hand, he points out that reusing treated wastewater within rendering facilities can result in smaller volumes of wastewater to treat at the municipal level, reduced strain on POTWs, freed-up capacity for other users in the area and extended life for critical infrastructure.

"Although water efficiency systems differ by facility, rendering is intrinsically opportunistic by recycling significant volumes of this captured water for uses such as cooling, cleaning and other internal process steps," Elrod says. "Reusing water within a facility isn't just a practice in rendering — it's core to how the industry operates, reducing reliance on new sources of freshwater and proactively limiting water impacts in communities where facilities operate."

## Releasing

Back to those natural water bodies that make up another potential pathway for rendering wastewater, in addition to adding to the quantity of water, properly treated discharge from rendering plants can actually mean improved quality as well. Drylet Inc. CEO Justin Whitley works with both renderers and other industrial users as well as municipalities. Attendees at a meeting of rural water managers told him about one such example.

The story is about a wastewater treatment plant in Chicago that discharges its water into Lake Michigan. It turns out the drinking water treatment facility pulls its water from Lake Michigan. And the water that was coming out of the wastewater treatment facility and being pumped back into the lake was actually cleaner than what was being pumped back out of the lake to use for drinking water.

Even though water is a renewable resource, in some parts of the U.S. supplies of water for both thirsty, growing urban

areas as well as irrigated agriculture lands are increasingly limited and subject to competition. Every drop counts so industrial users in particular will need to stay on top of their water stewardship processes.

Drylet is a bioremediation technology company offering alternative solutions for wastewater management to help companies and municipalities stay in compliance with their discharge permits. Mechanical dredging — using heavy equipment to remove sediment or solids that accumulate on the bottom of treatment basins or lagoons — is one step conventionally used in wastewater treatment.

"Primarily, our goal is to be an alternative solution to mechanical dredging," Whitley explains. "So, if a company is sending water out of a lagoon or after an on-site wastewater treatment facility, the local municipalities are going to have restrictions around what the levels of solids can be in that discharge and what their level of biological oxygen demand can be and so forth. Rather than having to pump and haul and either apply that solid material onto a landfill or find somewhere to land-apply, we utilize bioremediation — adding targeted specific bacteria into the wastewater system to break those solids down in their existing location.

"I think the message to renderers is that they have a good name when it comes to water management and discharges — let's keep it that way," he adds. "Technologies like ours and others continue to improve wastewater treatment systems for faster waste breakdown and reduced solids, which translates to lower dredging costs and a cleaner environment."

## Reducing

Beyond reducing the demand for freshwater supplies, renderers also help reduce clogs and associated billions of dollars in repairs, not to mention contaminated water from broken sewer lines and sewage backup in municipal wastewater systems. How? By collecting used grease and cooking oil from restaurants. According to the North American Renderers Association, its members recycle about 1.6 billion pounds of used cooking oil every year.

So, instead of clogging up waterlines that oil and grease get upcycled into ingredients for animal feed, renewable fuels, industrial uses and personal care products. Not to mention, it's one more way that renderers help keep otherwise wasted organic materials out of landfills where it could decay, add methane to the atmosphere and potentially contaminate surface and groundwater through seepage.

"The rendering industry is a leader in water conservation due to the efficiency of its process in recovering naturally occurring water from animal by-products" says Darling's Elrod. "In short, rendering's approach to water reuse creates a win–win, conserving resources inside a facility while supporting resilient water management in local communities." **R**

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Rooftop air scrubbers. All photos courtesy of Chem-Aqua Inc.

# Understanding and Controlling Odors in Rendering Facilities

Exploring key factors contributing to odor generation in rendering plants and effective control strategies to reduce their impact.

By Tim Daniels,
Corporate Account Manager,
Chem-Aqua Inc.

As the global population continues to rise, urbanization has reshaped the landscape in unprecedented ways. What were once remote industrial zones now neighbor densely populated communities. This urban sprawl presents a new set of challenges for longstanding industrial operations, especially rendering facilities. These facilities, which convert animal by-products into useful materials, now face increased scrutiny over one of their most unavoidable operational issues — odor.

While previously considered a nuisance confined within industrial parameters, odor emissions have become a significant environmental and public relations concern. Communities near these plants are demanding action, and regulators are stepping up enforcement. For stakeholders in rendering operations, this means taking a proactive, scientific and comprehensive approach to managing and mitigating odors.

## Odor Generation in Rendering

Odors in rendering facilities originate primarily from the decomposition and thermal processing of animal by-products. These by-products include fat, bone, feathers, hides, blood and internal organs (offal), many of which are highly perishable. As these materials begin to break down, biologically or chemically, they emit a complex array of volatile organic compounds (VOCs) responsible for the offensive odors.

To effectively manage these odors, facility operators must first understand where and how these emissions occur. This requires a deep understanding of the materials processed, the chemical by-products released and the technologies available for controlling those emissions.

## Key Factors: Material Type, Age

The composition and freshness of the material being processed significantly affect the types and intensity of odors emitted. A 1,000-pound steer yields about 600 pounds of edible meat. The remaining 400 pounds, comprised of bones, blood, fat and offal, are directed to rendering facilities for processing.

These by-products begin decomposing almost immediately after slaughter. The longer these materials are held before processing, especially under warm or humid conditions, the more severe the odor problem becomes. Aging organic matter undergoes microbial action and chemical changes that release increasingly complex and foul-smelling compounds.

To reduce odors from aging materials, it's essential to optimize logistics and minimize storage time. Prompt processing and refrigerated storage are effective methods for slowing decomposition and controlling odor development at the source.

## Odorous By-Products Created During Processing

More than 30 individual compounds have been identified as contributors to rendering plant odors. The most common and potent include:

- **Organic sulfides and disulfides:** These compounds are notorious for their "rotten egg" or decaying flesh smell.
- **Hydrogen sulfide (H2S):** Has an extremely low-odor threshold, detectable by humans at concentrations as low as 1 part per billion (ppb).
- **Amines:** Produced during the breakdown of proteins, amines carry fishy or decaying meat odors.
- **Organic acids and aldehydes:** Responsible for sour and pungent odors.
- **Ketones and alcohols:** Often add a sharp, fermented scent.
- **Hydrocarbons:** Can contribute to a greasy or oily smell.

The complexity and low detection thresholds of these compounds mean that even trace amounts can result in odor complaints from nearby communities. Therefore, odor control systems must be designed to address a broad spectrum of chemical compounds with high removal efficiency.

## Odor Control Strategies: From Source to Stack

Effective odor control in rendering plants requires a multipronged approach. While some measures target the source of the odor, others focus on removing or neutralizing odors in exhaust air streams before they are released into the atmosphere. Effective odor control is not a one-time fix but an ongoing commitment. Successful facilities follow a cycle of measurement, intervention and reassessment.

## Odor Mapping, Monitoring

Baseline measurements of odor levels at various facility points and perimeter locations help pinpoint sources and times of peak emission. Continuous monitoring systems and periodic olfactometry ("sniff testing") quantify improvements and support regulatory reporting.

- **Process analysis:** Reviewing operational steps from receiving to processing reveals bottlenecks or inefficiencies that lead to increased odor generation.
- **Customized solutions:** Each rendering plant is unique, requiring tailored systems that factor in throughput, material mix, layout and local meteorology.
- **Training and engagement:** Plant staff must understand both equipment operation and the importance of prompt intervention when malfunctions or unusual odors arise.
- **Community transparency:** Engaging local stakeholders and sharing data can foster good neighbor relations.

Odor management is a blend of technology, process rigor and people skills.

## Good Housekeeping, Process Controls

Before investing in advanced odor removal systems, rendering facilities should ensure that basic hygiene and operational best practices are in place:

- **Prompt material processing:** Reduces decomposition time and odor intensity.
- **Proper cleaning and sanitation:** Keeps buildup of organic residue in check.
- **Enclosed operations:** Prevents emissions from spreading throughout or escaping the plant.
- **Ventilation design:** Directs odorous air to treatment systems instead of letting it leak into the environment.

By minimizing the conditions that lead to odor formation in the first place, facilities can reduce the load on downstream control systems.

## Odor Removal Technologies

Once odorous air is captured, it must be treated before being vented. The most widely used air treatment methods in rendering plants are boiler incineration, multistage wet scrubber systems, and chemical control and on-site generation systems.

## Boiler Incineration

Many rendering facilities utilize high-pressure steam for cooking and drying processes. Boilers, already central to plant operations, offer a convenient method for odor control by incinerating captured odorous air.

Here's how it works — odorous air is introduced as either primary or secondary combustion air in the boiler. High combustion

*Continued on page 14*

Rooftop air scrubber.


An example of dirty, fouled media inside of the scrubber stack or tower.

temperatures (often over 1,500 degrees Fahrenheit) effectively break down organic compounds into harmless by-products like CO2 and water vapor.

Prior to entering the boiler, odorous air may be pretreated to remove moisture and particulates, which can interfere with combustion efficiency. Boiler incineration is effective and efficient when properly designed and maintained. Not all facilities can rely on this method, however, especially if boiler capacity is limited or unavailable during maintenance.

## Multistage Wet Scrubber Systems

When incineration is not practical, wet scrubbers provide a reliable alternative for odor control. A typical multistage scrubber system includes a venturi scrubber, utilized in the first stage, designed to remove fine particulate matter by using a water spray that knocks particles out of the air stream.

Additionally, packed-bed scrubbers involve one or more towers filled with plastic packing material. This structure maximizes the contact area between the air and the scrubbing solution, allowing for effective absorption or chemical reaction with odor compounds.

Scrubbing solutions often include oxidizing agents, such as chlorine dioxide (ClO2), peracetic acid (PAA), as well as enzymes and surfactants. These agents chemically react with sulfur compounds, amines and other VOCs to render them odorless. Scrubber systems must be carefully engineered for each plant's air volume, contaminant load and operating conditions.

## Chemical Control, On-Site Generation Systems

Beyond air scrubbing, the use of chemical odor neutralizers and oxidizers in water systems, wash-down operations and containment zones can further suppress odors. On-site chemical generation systems offer a reliable and cost-effective way to produce treatment agents like chlorine dioxide as needed.

These systems provide fresh, high-purity chemical solutions, reduce transportation and storage risks, and enable precise dosing based on real-time process conditions. Customized generation units can be tailored to meet each facility's unique footprint and flow requirements.

## Community, Regulatory Impact

Odor complaints are more than a nuisance — they can lead to serious operational challenges for rendering plants. Regulatory fines, legal actions and shutdown orders are becoming more common in municipalities where public outcry over odor becomes loud enough to prompt official intervention.

In addition to regulatory concerns, poor odor control can damage a company's reputation, strain community relations and hinder potential expansion or development. Proactively addressing odor demonstrates environmental stewardship and a commitment to corporate responsibility.

## Meeting the Challenge Head-On

As urban development encroaches on industrial zones and consumer demand continues to grow, rendering facilities are facing mounting pressures to increase output while minimizing environmental impact. Odor control is no longer optional — it's a critical component of sustainable, compliant and community-friendly operations.

By understanding the sources of odors, monitoring by-product composition and implementing a combination of good housekeeping practices, advanced scrubbing technologies and chemical treatment methods, rendering facilities can meet modern regulatory expectations and foster stronger relationships with surrounding communities.

Investing in the right strategies not only reduces the risk of enforcement actions and complaints but also demonstrates a commitment to responsible operations and environmental stewardship. Partnering with an experienced water treatment provider with access to proven and emerging technologies, an expansive product portfolio and skilled staff can help keep rendering facilities compliant.

An effective, well-executed odor control plan will benefit renderers as they continue to play a vital role in the global food production chain while maintaining the trust of the communities they serve. **R**


Packed-bed scrubber media help increase the surface area for gas/liquid contact to remove noxious odors.


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By Kent Swisher, NARA President and CEO

# The Rendering Industry's Water Story

*Proven treatment, responsible return and why EPA's 2025 effluent limitations guidelines decision matters.*

When most people think of rendering, they picture the recovery of fats and proteins, but just as important is how our industry manages water. Every rendering plant treats, reuses and, where permitted, returns process water in ways that safeguard local waters, recover valuable materials and minimize environmental impact.

That is why the U.S. Environmental Protection Agency's 2025 decision on the meat and poultry effluent limitations guidelines (ELG) matters. It recognizes that practical, proven treatment technologies paired with site-specific solutions protect communities while supporting businesses that play a vital role in the circular economy.

## Rendering Effluent: Managed, Recovered, Reused

- **Many streams, not one:** Different wastewater streams carry different loads of solids, fats and nutrients.
- **Tools, not a single fix:** Screens, settling tanks, flotation, centrifuges and biological treatment work together to clean water and capture by-products.
- **Recovery is the goal:** Separated fats and proteins are not waste — they are inputs for next-best uses like fuel and industrial uses.
- **Water stays in the loop:** Advanced treatment allows reuse for cleaning and cooling, cutting down on freshwater demand.
- **Proven results:** Properly designed systems meet tough permit limits while creating valuable product streams.

The bottom line is rendering wastewater management is not about disposal. It is about turning challenges into resources.

## EPA Consent Decree, Rulemaking Timeline

In December 2022, several environmental groups sued EPA claiming it had failed to update wastewater standards for the

meat and poultry processing sector, unchanged since 2004. Rather than litigate, EPA agreed to a consent decree, setting deadlines to act: a proposed rule by December 2023 and a final decision by August 2025.

To ensure rendering's voice was heard, NARA joined the Meat and Poultry Products Industry Coalition, a broad alliance that includes the U.S. Poultry & Egg Association, the Meat Institute, National Pork Producers Council, National Chicken Council, National Turkey Federation and the American Farm Bureau Federation.

Together we submitted a 52-page technical and economic response that challenged EPA's assumptions and highlighted risks EPA had underestimated. Our economic analysis showed that instead of 16 potential closures, as EPA suggested, certain rule options could have forced as many as 74 plants to shut down along with tens of thousands of lost jobs.

A special thank you goes out to the organizers of the MPP Coalition along with NARA members who contributed financially to this effort, including those who donated their time and provided valuable technical expertise.

## EPA's 2025 Decision: Why It Matters

After reviewing public comments and its statutory obligations, EPA decided not to finalize new ELGs or pretreatment standards for meat and poultry facilities in 2025. Instead, the agency recognized that existing, site-based approaches — where permit conditions are tailored to discharge pathways and facility operations — remain the best regulatory model for now.

For renderers, that decision means:

- **Avoiding unnecessary closures:** Small and economically marginal plants are not pushed out of business by one-size-fits-all mandates.
- **Protecting circularity:** Facilities can keep recovering fats, proteins and water instead of diverting materials to disposal.
- **Encouraging innovation:** The industry can continue developing next-generation solutions such as energy-efficient evaporation, advanced membranes and artificial intelligence (AI)-driven process controls.

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Rendering is a sustainability engine, and renderers are essential to the communities we serve. We transform materials that would otherwise be waste into safe, valuable inputs for feed, fuel and industry, all while carefully managing complex wastewater streams.

The EPA's 2025 decision confirms that regulation can both protect the environment and recognize the value of industry-driven solutions. The North American rendering industry will continue leading on water stewardship because protecting resources and advancing the circular economy are good business. **R**

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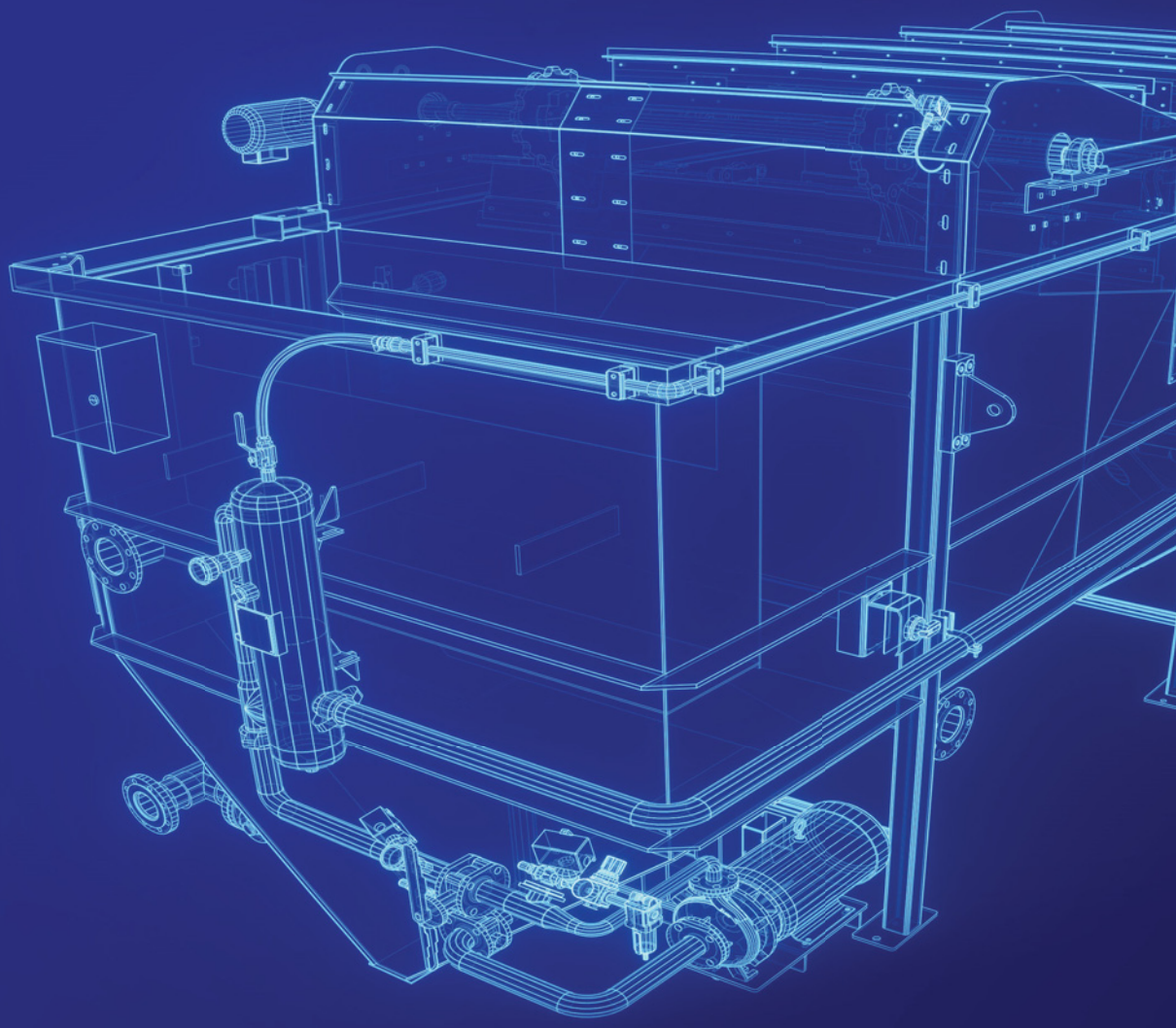

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Kevin Bell grew his youthful fascination with machinery into his first engineering company in New Zealand at age 23. Now he's the CEO of GTech USA and says it has never been more important for businesses to make the most efficient use of resources, which drives constant innovation at his company.

# GTech Practices the Art of Staying Nimble

*Combining start-to-finish control with the ability to pivot quickly, this NARA member's business strategy is helping to grow the rendering part of its business.*

By Sharla Ishmael

For GTech CEO Kevin Bell, machinery has been a lifelong passion. Growing up in New Zealand, his father's transport company gave him the chance to get his hands dirty rebuilding engines and gearboxes. As a teenager, he put that knowledge to use racing cars. He also completed an apprenticeship on machining and maintenance. Then after a brief and unsatisfying stint of driving trucks for his father's company, Bell decided to launch his own engineering company at the ripe old age of 23 — GTech Bellmor.

Today, Bell leads GTech USA, a private manufacturer with a growing presence in rendering, oil and gas, environmental services and industrial markets — still operating in New Zealand and Australia as well as its U.S. headquarters in Houston, Texas.

In a way, things have come full circle since the early days of Bell's first company when his business got off the ground making parts for a local rendering business.

"We had a new by-products plant in the small town I was in, and I started grinding the hole plates, the mincer plates and then started making other parts, too," Bell explains. "We got to know folks at Hutchison Hayes out of Houston and started manufacturing spare parts for their centrifuges. We got into rebuilding the decanters and the separators, and then that's how it's just grown from there really."

For reference, Hutchison Hayes was founded in the 1920s and pioneered separation technology for oilwell drilling and other industries before being acquired by Alfa Laval in 2008. That history matters because some of those machines are still around, as are some of the people who built them.

Bell moved to Houston in 2012 and, through series of partnerships and acquisitions, opened GTech USA. Initially, the U.S. company concentrated 100% on the oil and gas business. Around 2015, Bell brought in rendering veteran Dennis Edwards whom he knew from working with Hutchison Hayes.

"After we brought Dennis on board, we grew the rendering portion of our business in the U.S.," Bell says. "That has helped spread our risk quite a lot because oil and gas is either boom or bust. And we've also gone back to our core business with rendering. Today, oil and gas makes up 48% of GTech USA's customer base and rendering has grown from zero to 22% and counting."

Spreading business risk is just one way GTech stays nimble. Within the rendering part of its operations, innovation, customization and a sharp focus on customer service have allowed this relatively small manufacturer to establish a foothold and compete with much bigger companies.

As market conditions change, GTech has presented solutions

to meet the challenges. For instance, as fat prices have gotten more valuable on the rendering side, the company has introduced equipment that's even more effective at recovering and recycling edible and inedible oils and by-products.

One way to do that is utilizing dissolved air flotation (DAF) systems, which use air microbubbles to remove suspended solids, oils, fats and other impurities from wastewater. This enables the material to float to the surface for skimming and removal, providing more valuable products to sell plus cleaner wastewater for reuse.

"We've got a new product with three-phase decanters for DAF on the waste stream," Bell explains. "We've had a pretty good run with that. It's a big push for us to look at the DAF recycling for the fat that comes off in their plants because it's a big revenue stream for renderers.

"In recent years, with much lower cattle numbers in the U.S. from droughts and so forth, renderers are looking closer at their waste streams and what they can actually optimize," he adds. "It's something they probably didn't have as much incentive to do in the past as efficiently as they possibly could."

During a tour of the shop, Bell points to a thoughtful feature on a sparkling new Echo 7 three-phase centrifuge waiting to ship out to a large beef processor for its DAF recovery — a hydraulic lid that will make any future cleaning or repairs much easier and safer. That sort of detail comes from first-hand engineering knowledge of working with the machines in an actual operating environment.

Another GTech innovation that grew out of practical experience was the use of skids. GTech's skids are turnkey solutions that make it possible for its technology to be easily integrated into existing systems or relocated anywhere an operation requires. Being able to customize setups for customers is a big advantage made possible through a deliberate strategy of local design and manufacturing.

"We do all our electrical components or electrical engineering here in Houston," Bells says. "We build all the stuff here. We have about four mechanical and electrical engineers in New Zealand, but we brought Hayden Perham, one of our really talented engineers, across from New Zealand so we could have our electrical engineering automation done here in Houston — and that makes a massive difference.

"We're in total control of our end result and we're very custom," he adds. "We can be a lot more accommodating with configurations because we are a small manufacturer compared to the big guys in custom design fabrication. We don't do any subcontracting — it's all done within the company, which is really important for quality and obviously serviceability and backup. We've also got a whole building of spare parts — at the moment, there is probably $8 million to $9 million worth of parts on the shelf. So, if you need something, call us and we can ship it out the same or next day."

*Continued on page 22*

## Why We Are NARA Members

GTech joined the North American Renderers Association when Dennis Edwards joined the company. Edwards had been in NARA for 30 years and knew everybody, says CEO Kevin Bell. GTech is also a member of the Australian Renderers Association and Bell makes a point to attend the meetings of both organizations.

"It's about networking and building relationships," Bell explains. "All the decision makers are at the NARA annual convention. That's the difference with that show. You've got the all the right people there in one place from all over the world actually. And the members are good about introducing you to their connections as well.

"It is a good opportunity to catch up with customers, and I find the people very genuine and easy to talk to," he adds. "The golf tournament is really good. I've met some great people and played with CEOs. It's one of the best tournaments there is."

John Lindley is a longtime GTech employee.

**Staying Nimble** *Continued from page 21*

Bell is proud of how long some employees have been with GTech. For decades, in many cases. It's their knowledge and pride in workmanship that he says sets the company apart for quality and service.

"The secret to the success of the company is we've got great people that work here, and we still call it a mom-and-pop operation," Bell explains. "We're not corporate America. We do things probably a little different than most other companies. The equipment we build is just as good as anybody else's and perhaps made with a little more attention to detail.

"We build our equipment pretty robustly and a lot of thought has gone into maintenance and servicing it because we've come from the floor," he says. "It makes it easier when you understand how to service it in the plant. Some people don't think about how in five years are you going to get that equipment down that you just put up? We do."

Something else GTech has put a lot of thought into is the changing of the guard in its customers' workforces, as many older workers are retiring. The company is focusing on automation to help make that transition to younger workers who don't possess the same institutional knowledge or feel for the machinery.

"That's the challenge," Bell admits. "So, we're trying to take the operator away from the machine because that type of skillset is not there. And it's the same in all industries. The old guys in the industry can go and look at the product and know what changes to make. We are really pushing automation and control systems to make it user-friendly for young people, so it's all touchscreen. One of our big drives in the next couple of years is to take the guesswork out of the process."

In addition to integrating automation, Bell says he thinks there will be a lot of capital investment to update equipment in U.S. rendering plants over the next several years to meet more exacting standards for products like tallow and used cooking oil (UCO). Because plants here are so much bigger than in New Zealand, for instance, they are much more expensive to update.

A year ago, GTech made the decision to bring even more manufacturing to Houston from New Zealand. It saves customers serious money on freight — especially in light of the current tariff situation — and it shows that GTech is committed to the U.S. It also enables the company to deliver equipment quicker.

"I've had customers who said they had been waiting six months for a simple part, and they've had enough," Bell points out. "They want to buy American. If someone rings me up today and wants to know when they can get a centrifuge, I can deliver an Echo 4 in two or three weeks. Delivery is a big plus for us. And so is pushing the American build.

"One of the things I really like about the rendering business is once they know you and that they can rely on you, then they are very loyal customers," he adds. "And we strive to earn their loyalty every day. It's a two-way street." **R**

Kristopher Streety and Brian Appodaca work in GTech's Houston headquarters.

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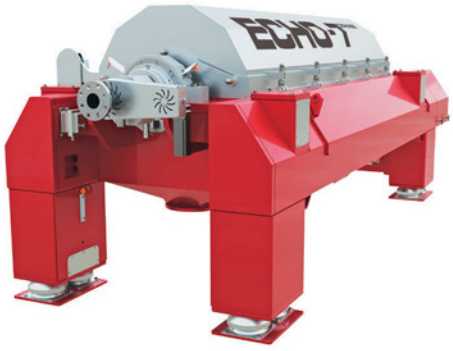


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**Name: Meghan Fulmer**
**Age:** 41
**Title/Role:** Director of Import and Export Programs
**Company:** Darling Ingredients Inc.
**What I like about this work:**

What I enjoy most about the rendering industry is its dynamic and fast-paced nature. In my role as director of import and export programs, this constantly evolving environment keeps my work engaging and intellectually stimulating. I also appreciate the cross-functional collaboration with various departments, which deepens my understanding of both the business and the industry as a whole.

**Name: Tony Thomas**
**Age:** 55
**Title/Role:** Rendering Business Development Manager
**Company:** Allied Industrial Dynamics
**What I like about this work:**

I enjoy supporting rendering operations by helping to maintain and repair centrifuges and rotating equipment because it allows me to blend hands-on technical skills with problem solving in a high-impact environment. Working with these critical machines gives me a sense of satisfaction, knowing that my expertise directly contributes to the smooth running and reliability of the plant's operations.

Troubleshooting and resolving issues with centrifuges not only keeps production efficient but also helps ensure safety and prevent costly downtime. I find it rewarding to collaborate with operators and maintenance teams, tackle mechanical challenges and see firsthand the positive results of my efforts in minimizing disruptions and keeping essential processes on track.

**Name: Brad Fleeman**
**Title/Role:** Regional Vice President for Southern California
**Company:** Darling Ingredients Inc.
**What I like about this work:**

I didn't grow up dreaming about rendering, but something clicked May 19, 1997, when I walked into the Darling Ingredients plant in Fresno, California, as a maintenance mechanic. I learned the basics of keeping a production floor alive and kicking and before long I was hooked on the pace, the problem-solving and, honestly, the smell of a good challenge.

In 2006, I found myself in the middle of a complete plant teardown and rebuild — a massive project that tested my limits and taught me the value of putting in the kind of hard work that gets noticed. That led me to the role of reliability engineer on a Western region project, where I teamed up with a great boss who showed me how much you can accomplish when you have the right mix of passion, skill, grit, teamwork and respect.

By 2010, I was leading the Tacoma plant as general manager, blending my maintenance and engineering background with what had become my favorite part of the job — building a team I could trust, and one that trusted me right back. We did not just hit numbers, we made each other better.

Fast forward to today and I am a regional vice president representing our West 2 region. The challenges are bigger and the stakes are higher but the joy's the same — teaching, growing teams, looking at problems from new angles and making decisions based on both data and gut instinct.

After more than 28 years, I am still here because rendering is never boring. Every day is different, and there is always something to fix, build, improve or laugh about along the way. **R**


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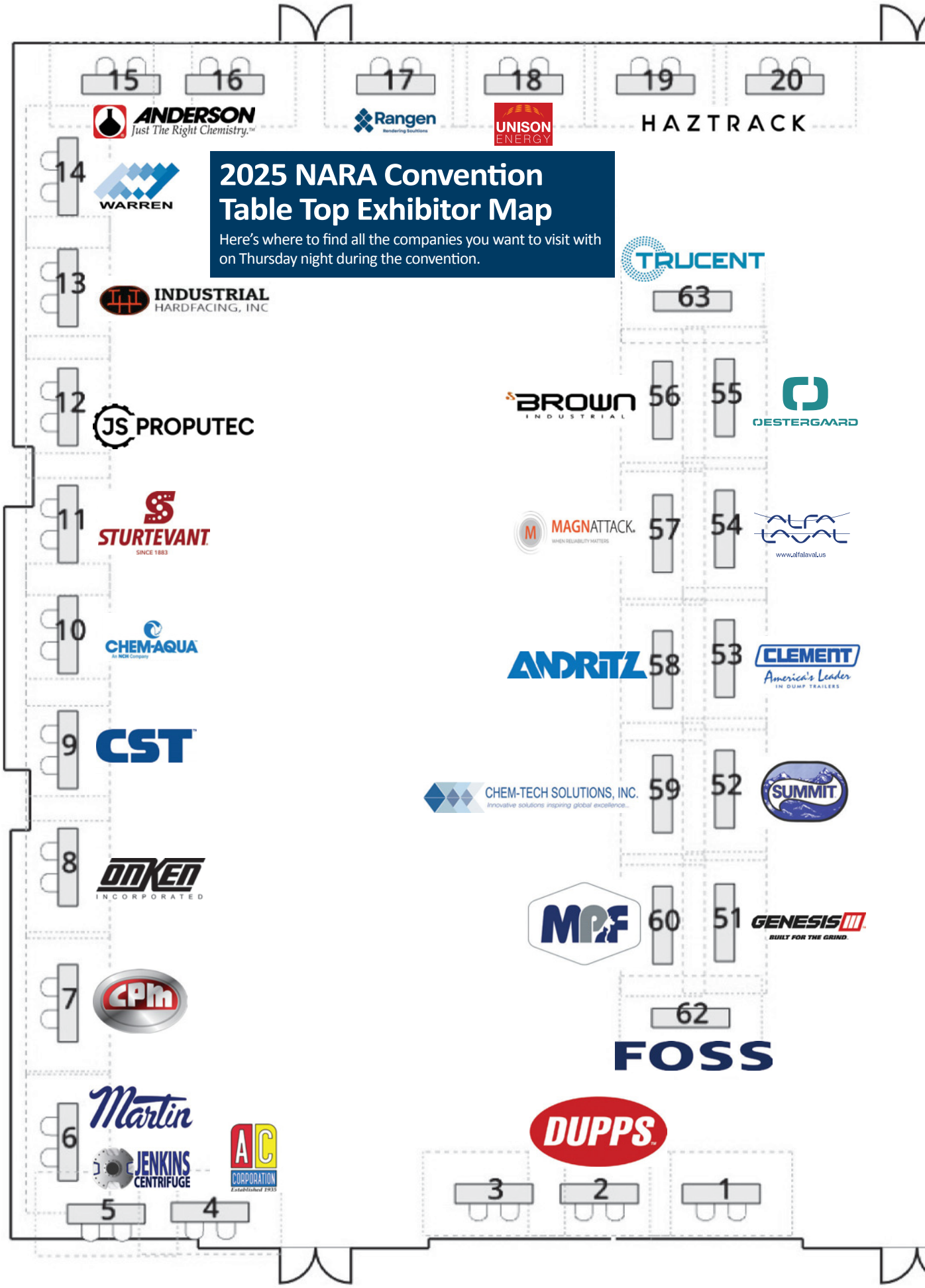
2025 NARA Convention
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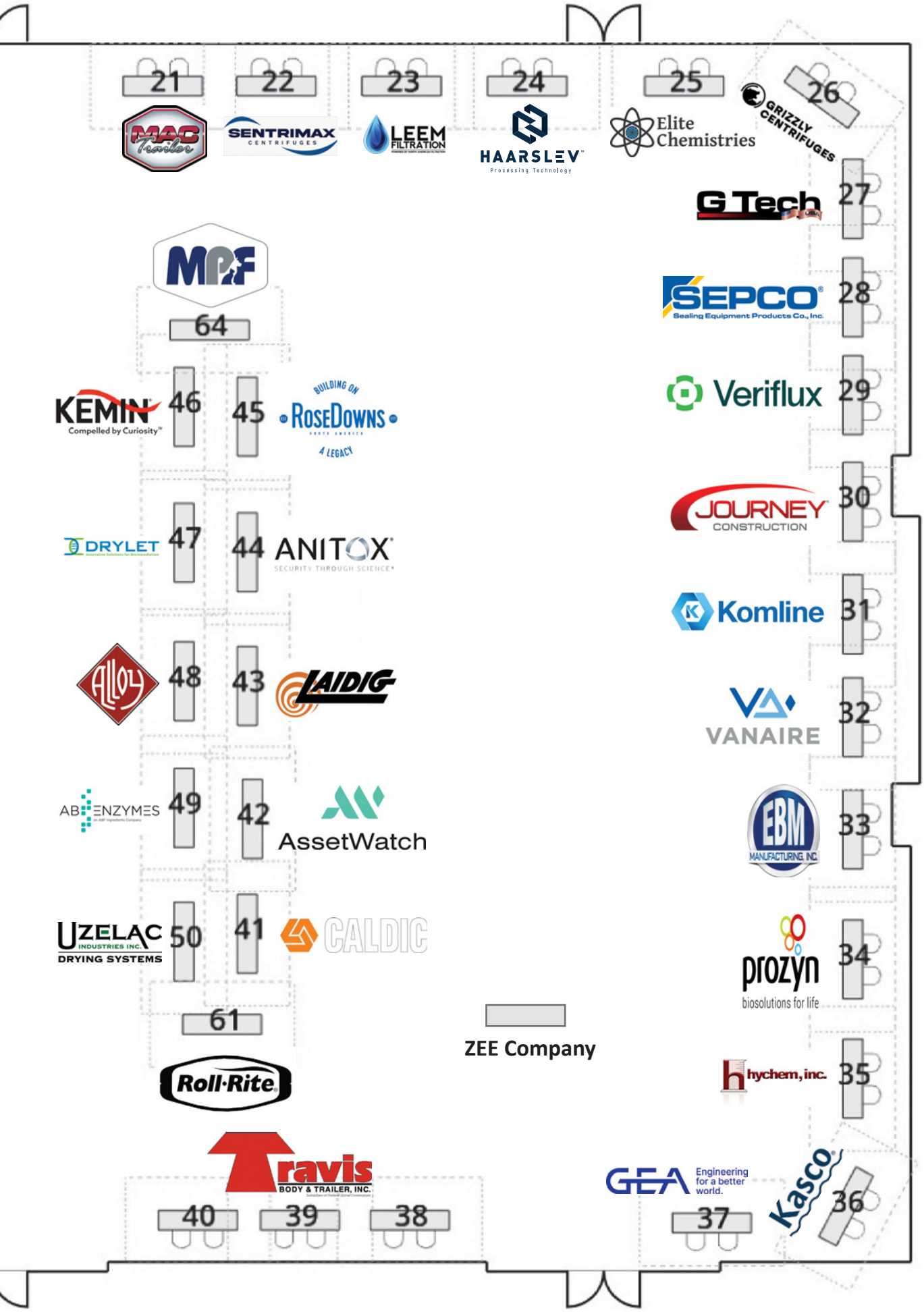
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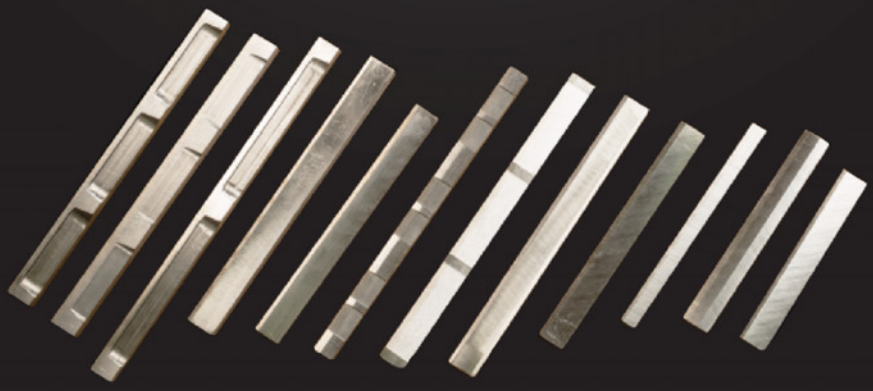

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## NARA Announces Winner of Inaugural Rendering Scholarship

The North American Renderers Association announced Madelynn Pimm, a senior at Penn State University, as the recipient of the inaugural NARA Rendering Scholarship. Pimm is majoring in agribusiness management and international agriculture. She plans to pursue a career in agricultural marketing with the goal of connecting producers and consumers to support the growth of the agricultural industry.

Outside the classroom, Pimm is actively engaged in campus leadership and extracurriculars. She currently serves as president of Penn State Collegiate Cattlewomen, public relations chair of Penn State Block and Bridle and member of the Penn State livestock judging team. She also enjoys traveling and exploring agriculture in different regions.

"Receiving this scholarship has motivated me to continue working hard toward my career goals and made me extra grateful for the support I continuously get as I pursue opportunities to make a positive impact in agriculture," Pimm said.

The NARA Rendering Scholarship was launched in celebration of National Rendering Day observed annually on April 21. It was created to recognize and support students who demonstrate an interest in the vital role of rendering. The scholarship is designed to inspire the next generation of leaders passionate about sustainability, agriculture, animal nutrition and the circular economy.

Applicants were required to submit a completed application form, current transcript, proof of enrollment or acceptance and a 500-word essay about "Why is rendering important in today's world?"

The inaugural competition drew strong applicants across a wide range of disciplines, but Pimm's essay best captured the clarity, passion and vision that reflect rendering's importance in today's world. With the creation of this scholarship, NARA aims to shine a light on rendering's vital role in building a more sustainable future while encouraging young leaders like Pimm to engage with this essential industry.

As part of her recognition, Pimm has been invited to be the featured guest on the next episode of NARA's rendering podcast, *The Invisible Industry*. During the episode, she will share her winning essay and perspectives as a future leader in agriculture. The episode will air later this fall on YouTube, Spotify and the NARA website. **R**

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PS Form 3526-R, July 2014

# From Drowning in Data to Data-driven Decisions

By Henning Haugaard, Chief Commercial Officer, Haarslev Industries

*Haarslev Connect dashboard*

## Mountains of Data

With accelerating digitalization, Industry 4.0 manufacturing constellations and the industrial Internet of Things, we are now swimming in data in almost everything we do.

But this proliferation of data only has practical, commercial value if it's structured for easy use, and if it enables decision-makers to quickly and easily access *useful* information that helps them make better decisions — whether focused on process optimization, problem-solving, glitch-busting or preventive action.

## Inconsistencies Are the Norm

In rendering operations, very little remains the same for long. Raw material inputs are often inconsistent, processing conditions change, customer requirements vary, market expectations are unpredictable, monitoring and accountability are increasingly in focus, and documentation requirements get more stringent.

If decision-makers responsible for rendering facilities want to make timely, throughflow-appropriate decisions, they need *easy* access to the *right* data about what's going on and where, in easy-to-grasp formats that extend beyond the data tsunamis of traditional reporting systems. Information only has high-level value if it's actionable — if it makes it easier for key people to make solidly informed decisions that reduce costs and limit impacts, and to do so with minimal of executive effort and less guesswork or risk of potentially costly mistakes.

## From Control Systems Software to Well-informed Management Decisions

Decision-makers need to know *where* to look in these convoluted mountains of data so they can make better decisions and achieve better results.

That's why Haarslev Industries recently launched the new Haarslev Connect decision-making tool for management in rendering operations, making it easier to link result to cause, and problem to source.

Haarslev Connect consists of a secure, scalable cloud-based framework for managing, integrating and displaying the data that tells companies exactly what's happening in their rendering and processing operations — so the right people can make the best decisions about running, streamlining and troubleshooting important processes — and do so more easily, more quickly and more effectively.

This enables decision-makers to deal with complexity and fluctuations by drilling down through the available data to locate and identify the exact source of any performance inconsistencies, potential problems, undesirable issues and equipment incompatibilities. These insights are backed by full documentation that helps dial down guesswork, uncertainty and risk.

## The Information Edge

This means rendering operations can now move onwards and upwards from traditional "best guess" approaches.

There's now a reliable, data-driven way to access the relevant data, and when you need it to plan, deploy resources, manage rendering operations and purchase new equipment to ramp up processing efficiency as well as competitive advantage. Other big payoffs can include more cost-effective ESG reporting.

## Path to More Profitable Decisions

This kind of problem-identification tool for management serves as an effective enabler for better commercial and strategic decisions as well as improved operating procedures.

The new Haarslev Connect software platform makes it easy for companies to react quickly to changing conditions and circumstances, and to do so:

- At lower cost.
- With no downtime or interruptions to processing operations during installation.
- With less trial and error, reducing risk.
- Quickly to avoid unnecessary costs, waste, and environmental impacts.

# Transform Waste into Revenue

By Daniel Lakovic, Business Development Manager, Flottweg Separation Technology

While the concept of turning waste into revenue is not new, putting it into profitable practice has been elusive. Increasing levels of wastewater regulation and the high demand for fats contained in that wastewater make two-stage dissolved air flotation (DAF) a process worth learning about — especially if you are expanding or upgrading your wastewater treatment plant.

First, it is important to understand the difference between waste products, by-products and co-products for beef, pork or poultry. There are some nonstandard industry definitions:

- **Waste product:** Material you must pay someone to haul away and dispose of.
- **By-product:** Material that is useful to someone. You may give it away for free or receive a nominal payment. For example, sludge solids may be used in agricultural or horticultural applications.
- **Co-product:** Material (typically fat) with a quantifiable, known value that you sell for a profit. You'll have to hit a target specification for moisture, insoluble and unsaponifiable (MIU) material and possibly others, depending on the grade. But the fat you sell will most likely be used to power low-carbon renewable diesel, also known as hydrotreated vegetable oil (HVO), or sustainable aviation fuel (SAF).

## Moving Co-Products up the Value Chain

Renderers are obviously familiar with the range of products made from poultry, pork and beef co-products. When we mention DAF skimmings, we are talking about co-products from the meal and fat.

Not all of these products have the same value. A good example of a lower-value use for recovered meal would be in the production of fertilizer. Use in biofuels would be higher than that, moving up to incorporation into monogastric feed. The highest value comes from selling product to pet food manufacturers.

When moving up the value chain using a two-stage DAF system, the goal is to sell as a revenue stream what you formerly had to pay to treat or haul away. The proteins and fats that you recover would show up in your treatment plant as total suspended solids (TSS), total nitrogen (TKN), or biochemical oxygen demand (BOD), which are costly to treat.

With a two-stage DAF system augmented with centrifuges, you'll see significant savings in hauling and chemical costs immediately drop to the bottom line. On top of that, you'll enjoy increased revenue by maximizing the amount received for the animal that was processed.

With the assistance of two- and three-phase separation technologies, you can sell a polymer-free meal for the top of the value chain and high-quality fat, grease or tallow to renewable fuel producers.

## Dewatering Secondary Sludge

The biggest bang for the buck comes from producing drier cake. Compared with other technologies, centrifuges can get a 3% to 8% increase in cake dryness. For example, if you increase by five points from 18% to 23%, that's actually a 28% decrease in the cost of hauling. It is a 28% decrease in solids, which directly affects the bottom line with a decrease in hauling and disposal costs.

To calculate the average savings, let's use an example of standard DAF sludge properties with relatively conservative fat prices (around 20 cents per pound). In the primary DAF skim, which is the material that feeds into the tricanter (three-phase centrifuge), there is a range of 8% to 27.5% solids with a decrease in water. However, most of the fat is removed.

The bottom line is that after disposal, for an 11,000-gallon standard truck, there is a net of about $1,000 per truck in fat revenue. For this example, you could also send out fewer trucks because the removed fat would be replaced with actual sludge. It can be further calculated that due to the drier cake, the material could be hauled away in dump trucks rather than the 11,000-gallon tanker trucks. Disposal of solids is less expensive than disposal of liquids.

Further savings can be realized by treating the excess water in the plant rather than hauling it away for disposal.

What goes into the DAF system is separated. To get 11,000 gallons of DAF skim, you would be feeding in around 60,000 gallons of wastewater. Once the DAF skim is removed from the top, about 40,000 gallons is left over and would need to be processed.

Imagine a tanker truck of DAF skim. Traditionally, you would have to pay to dispose of that. If a tricanter is used first, about $1,000 worth of fat will be recovered and the cost to dispose of it will be significantly reduced. It's easier to quantify the fat sales because it's a known commodity. Disposal costs vary based on several factors (geography, local requirements for wastewater discharge, etc.), so that savings is more difficult to calculate.

The biggest bang for the buck is reducing the hauling costs, and the math is more simply calculated by an environmental plant manager. Rather than hauling away material that is 10% solids, increase disposal revenue by hauling away material that is 30% solids.

Factoring in other advantages, such as the reduced water consumption compared with the service requirements of a belt press, an ongoing operating cost reduction of about 40% can be achieved by using the centrifuge compared to either a belt or fan press.

## Understanding DAF Systems

In a single-stage DAF system, feedwater may be treated with a flocculant to aid flotation. Skimmings are often sent to a tank to settle before being hauled off to a renderer or processed with a horizontal three-phase centrifuge to separate fat, meal and water. Using flocculants, however, can reduce the value of recovered co-products — potentially making the meal unsuitable for animal feed or land application, depending on the chemical used.

A two-stage system uses both a primary and secondary DAF table. Traditionally, primary skimmings are dewatered with a two-phase decanter, and a vertical disc stack centrifuge separates the fat from the discharged liquid. A more efficient approach uses a single, three-phase tricanter centrifuge to simultaneously separate solids, water and fat —eliminating the need for multiple machines and reducing capital and maintenance costs.

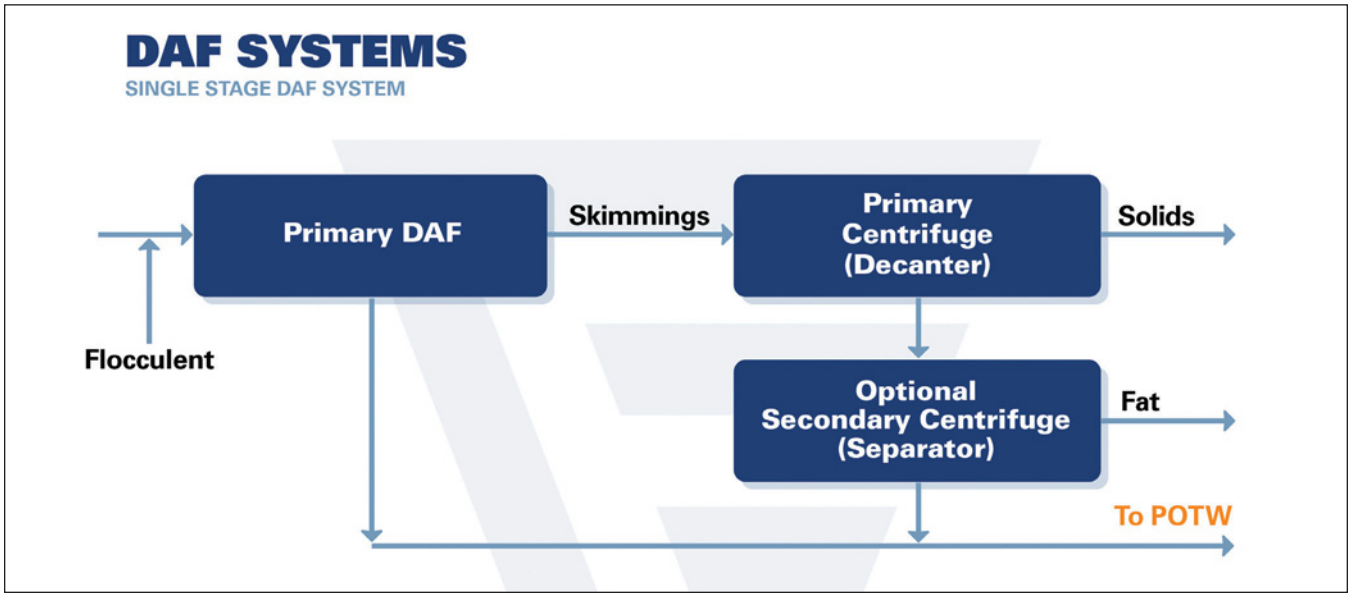
The tricanter discharges water (heavy phase) and primary DAF underflow to the secondary DAF table, where flocculant may be added to enhance separation. Secondary skimmings are then processed in a two-phase decanter. Because of flocculant use, the resulting solids are typically landfilled rather than reused.

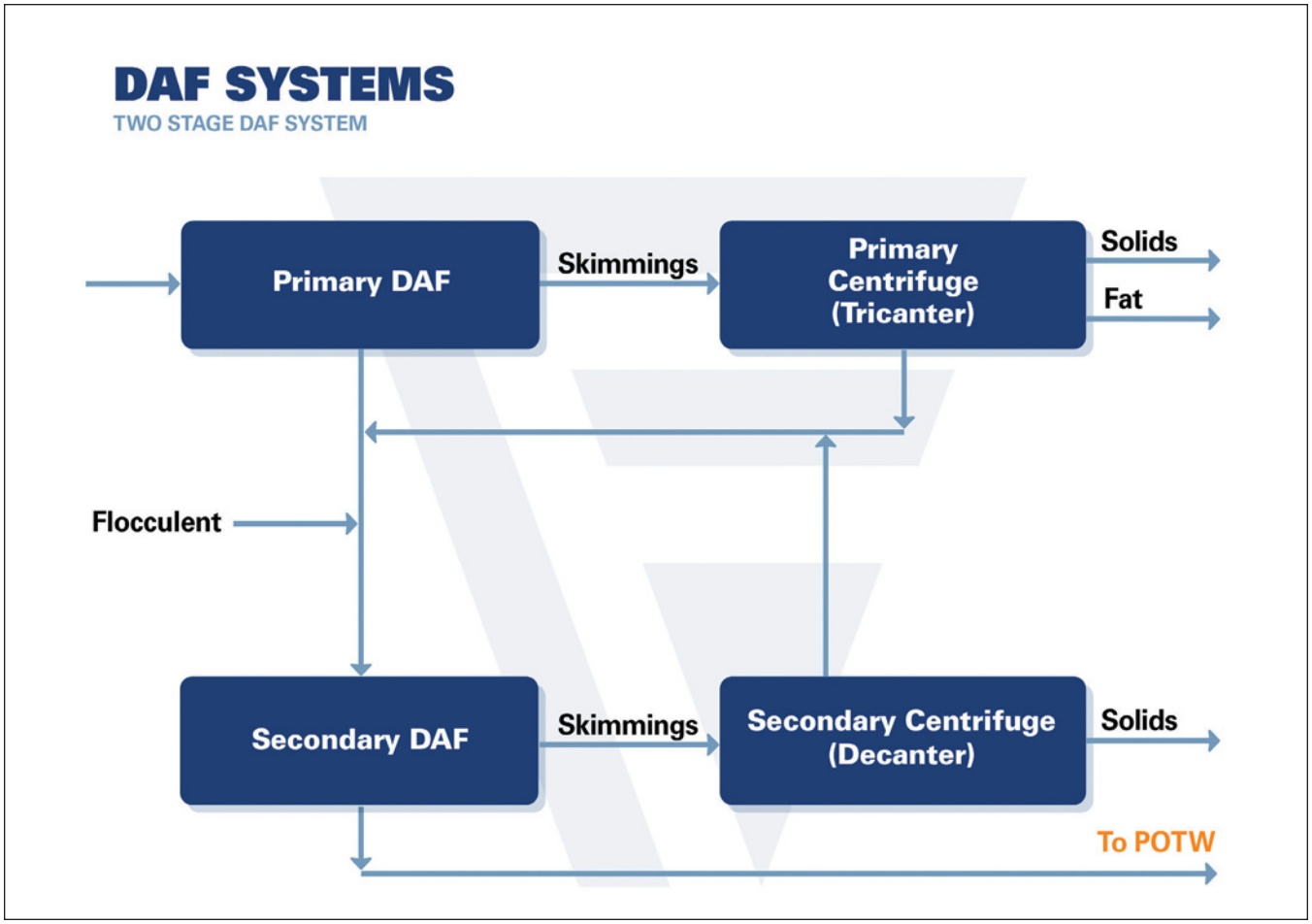
Compared to single-stage systems, a two-stage DAF setup offers:

- 25% to 50% greater BOD removal.
- TKN removal doubling from about 30% to 60%.
- TSS and fats, oils and grease (FOG) levels consistently under 100 milligrams per liter (mg/L).

A tricanter recovers over 99% of available fat (98% purity) and 70% to 90% of the meal, with cake dryness between 20% and 30%. Secondary DAF sludge dewatered via a decanter can achieve 3% to 8% more dryness than alternative methods.

*Continued on page 38*






**Transform Waste** *Continued from page 37*

## Maximizing Efficiency of the 2-Stage DAF System

A high-performance two-stage DAF system depends on the capabilities of the horizontal three-phase centrifuge, particularly two features: the adjustable impeller and dual independent drive systems.

## Adjustable Impeller

This eccentric disc acts as a dynamic weir, controlling the internal "pond depth" and enabling precise separation of solids, water and fat. In a tricanter, the impeller remains stationary while the bowl's rotational force drives the heavy phase (water) through it under pressure. This pressurized discharge allows for real-time adjustments to optimize separation efficiency. Unlike fixed weirs that require hours of manual reset during changing feed conditions, the adjustable impeller enables near-instant tweaks and a return to steady state within minutes — minimizing downtime and maximizing yield.

## Dual Independent Drive Systems

The differential speed between the bowl and scroll determines how long solids are exposed to high G-forces — crucial for achieving dry cake. A faster scroll speed increases throughput but reduces dryness while slower speeds retain solids longer, yielding a drier cake. With dual drives, the system automatically adjusts scroll speed based on torque, optimizing both separation and energy consumption. If a process upset occurs and solids begin to accumulate, operators can manually run the scroll to clear a plug without a full shutdown.

Together, these technologies allow two-stage DAF systems to operate with just two machines instead of three, while achieving:

- 99% or higher recovery of available fats (98% purity).
- Customizable separation to prioritize fat purity or cake dryness.
- Reduced operating costs, increased responsiveness and greater system uptime.

## Turning Waste into Value

For meat processors and rendering operations facing rising disposal costs and tightening environmental regulations, two-stage DAF systems — especially when paired with advanced centrifuge technology — offer a transformative solution. By maximizing fat recovery, improving solids dryness and dramatically reducing hauling and chemical expenses, these systems convert what was once a costly waste stream into a profitable revenue generator.

With the precision of adjustable impellers and the efficiency of dual-drive centrifuges, operators gain real-time control over separation outcomes — whether the goal is cleaner centrate, drier cake or higher-purity fat. The result is a leaner, more agile wastewater process that delivers measurable economic and environmental returns. In short, the right DAF strategy doesn't just manage waste — it unlocks the value hidden inside it. **R**

# Render

**The International Magazine of Rendering**

*Render* magazine is owned by the North American Renderers Association and is the information resource communicating services and industry news, including product innovations, government and regulatory issues, new research and market reports.

The global reliance on rendered and repurposed food and feed as a sustainable source of nutrition and energy is a present-day challenge as well as tomorrow's opportunity. Reducing food waste and carbon emissions while adding value to rendered products is both our vision and a mission.

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### 2026 EDITORIAL CALENDAR

| Issue | Focus | Bonus Distribution |
|---|---|---|
| February | Biofuels and Leadership | Pacific Coast Renderers Assn. Convention |
| April | U.S. Market Report | NARA Spring Business Meeting |
| June | NARA Supplier Directory | NARA Central Region Convention |
| August | International Rendering Reports | |
| October | Energy and Preconvention Info | NARA Annual Convention/Fats and Protein Research Foundation Conference |
| December | NARA Convention Report | International Processing and Production Expo |

**Dates and editorial focus subject to change at publisher's discretion.*

*Render* will also cover feed industry news, aquaculture, pet food and much more in 2026.

# Render

## The International Magazine of Rendering

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**Published six times each year (print and digital):**
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Members of the North American Renderers Association (95% of all North American renderers)
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Animal nutritionists
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Veterinarians
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| October | September 10 |
| December | November 10 |

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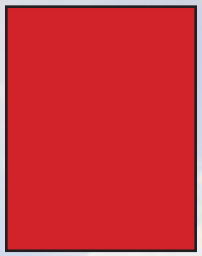

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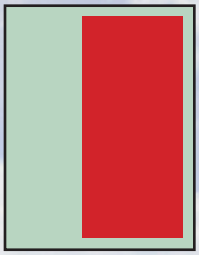

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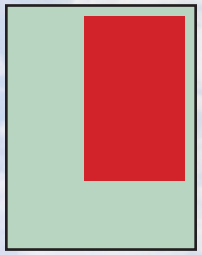

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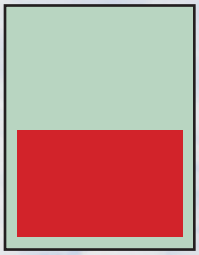

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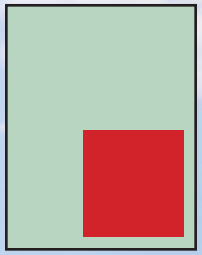

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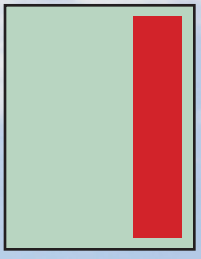

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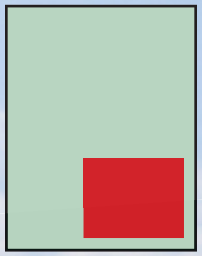

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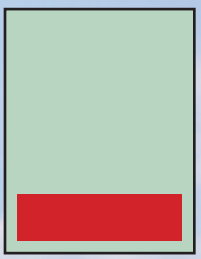

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*Photo credit: Sanimax*

# WRO Update – May to August

Over the past four months, the World Renderers Organization has been actively engaged in multiple international platforms, presenting the environmental and sanitary benefits of our sector and advancing actions that reinforce the free trade of our commodities. It is a pleasure to share some highlights of this period.

In May, at the 92nd general session of the World Organization for Animal Health Assembly of Delegates in Paris, Joaquín Delgadillo and I represented WRO. The outcome builds on more than six years of consistent technical engagement between WRO and the Terrestrial Animal Health Standards Commission, further expanding the list of recognitions by adding protein meals and rendered fats as safe trade commodities for contagious bovine pleuropneumonia, African horse sickness and dourine.

In June, during the WRO general assembly held at the European Fat Processors and Renderers Association Convention in Riga, Latvia, members unanimously approved Tunisia as a new country member, represented by Ben Arous.

The assembly also reviewed activities conducted under Doyle Leefers' presidency, including partnerships with the International Feed Industry Federation, WOAH and the Food and Agriculture Organization of the United Nations' Livestock Environmental Assessment and Performance partnership, as well as progress on the new WRO Code of Practice being drafted with FAO support.

Leadership transitions were also confirmed. Jaime Sasson of Argentina was elected as second vice president, Lars Krause-Kjaer of Denmark advanced to first vice president, and Peter Milzewski from Australia was elected president for the 2025-2027 term. Members warmly thanked Leefers for his dedicated service. The budget for the new term was also approved without remarks.

Within WOAH, a WRO technical working group revised and updated the report submitted in late 2024 on the thermal characteristics of rendering technologies, responding to WOAH's request. This updated data reinforces the recognition of rendered products as safe commodities across borders, regardless of disease status in producing or importing countries.

We are looking ahead to the FAO Global Conference on Sustainable Livestock Transformation, which will be held in Rome just before this issue of *Render* comes out. WRO has been granted an exhibition booth. Together with the Brazilian Association of Animal Renderers (ABRA), Spain's National Association of Industries Processing Fats and Animal By-Products (ANAGRASA), and Italy's National Association of Animal Fat and Protein Producers (ASSOGRASSI), we will highlight the environmental and sanitary benefits delivered daily by rendering.

## Important Document on Sustainable Livestock Production Released

In addition, WRO joined with other leading global livestock organizations in preparing a landmark document, the joint "Common Principles and Actions for Sustainable Livestock Production," which is the result of an unprecedented effort by a wide coalition of stakeholders coming together to demonstrate

*Continued on page 42*

**WRO Update** *Continued from page 41*

the awareness, purpose and unity of the global livestock sector.

The signatories include Healthfor-Animals, International Meat Secretariat, IFIF, World Farmers Organization, Global Dairy Platform, International Poultry Council, World Egg Organization, Global Roundtable for Sustainable Beef, International Wool Textile Organization and WRO. Together, we represent virtually every major branch of livestock production worldwide.

The principles underline that sustainability in livestock must simultaneously deliver for people and the planet, balancing environmental, economic and social goals. They highlight that:

- Healthy animals are at the core of sustainable food systems.
- Local realities must be respected while pursuing global objectives.
- Innovation, science and continuous improvement are key to progress.
- Better data is essential to measure and manage impacts.

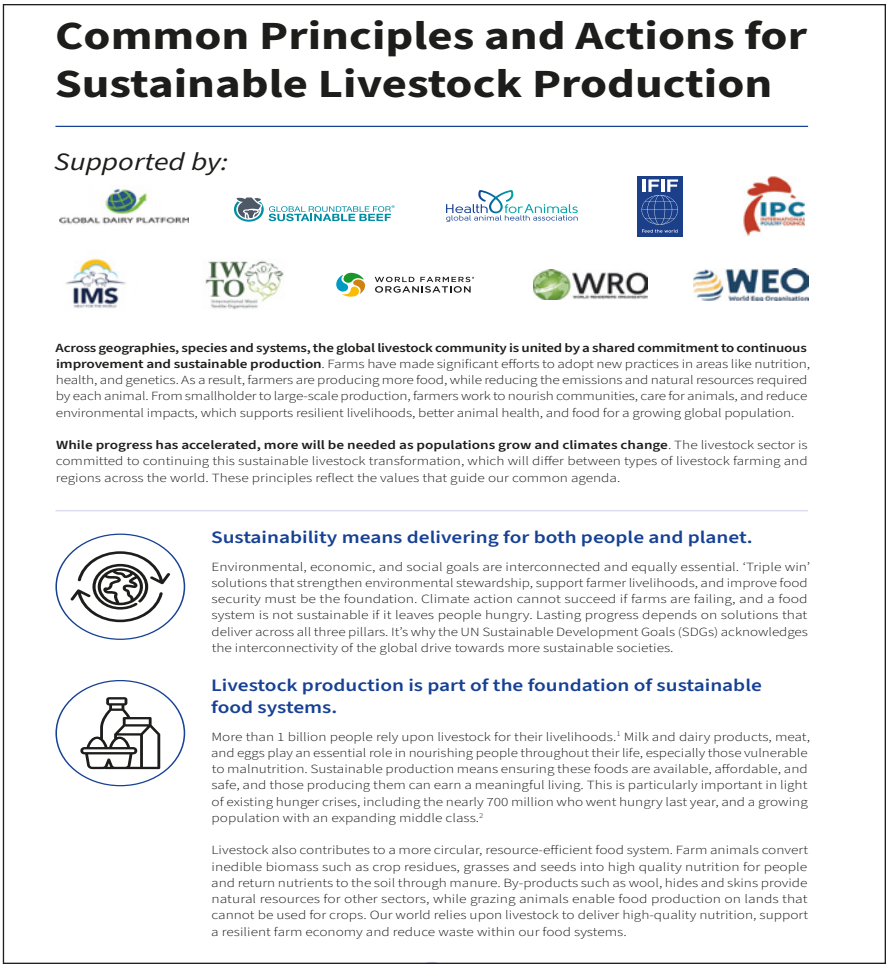
The document stresses the vital role of farmers, who must be recognized as central stewards of land, animals and ecosystems.

For our sector, this joint statement is particularly powerful as it places rendering side by side with all other leading organizations in demonstrating the essential contributions of livestock to circularity, nutrition security, climate goals and rural livelihoods. It underscores that livestock not only nourishes people but also provides sustainable solutions through upcycling, efficient use of resources and safe trade.

We now call upon all WRO members to actively amplify this message within your own countries and regions, especially by sharing it with environmental and veterinary authorities. By doing so, we ensure that the unified voice of the livestock sector reaches policymakers, regulators and opinion leaders who shape the future of our industry.

To access the full content of "Common Principles and Actions for Sustainable Livestock Production," go to our website at worldrenderers.net.

WRO remains committed to strengthening our voice and presence worldwide, ensuring that rendering is recognized as a cornerstone of safe trade and sustainable livestock production. We hope to see you during NARA's annual convention Oct. 21-24 in Florida. **R**



## Common Principles and Actions for Sustainable Livestock Production

*Supported by:*

GLOBAL DAIRY PLATFORM · GLOBAL ROUNDTABLE FOR SUSTAINABLE BEEF · Health for Animals global animal health association · IFIF · IPC · IMS · IWTO · WORLD FARMERS' ORGANISATION · WRO · WEO

**Across geographies, species and systems, the global livestock community is united by a shared commitment to continuous improvement and sustainable production**. Farms have made significant efforts to adopt new practices in areas like nutrition, health, and genetics. As a result, farmers are producing more food, while reducing the emissions and natural resources required by each animal. From smallholder to large-scale production, farmers work to nourish communities, care for animals, and reduce environmental impacts, which supports resilient livelihoods, better animal health, and food for a growing global population.

**While progress has accelerated, more will be needed as populations grow and climates change**. The livestock sector is committed to continuing this sustainable livestock transformation, which will differ between types of livestock farming and regions across the world. These principles reflect the values that guide our common agenda.

**Sustainability means delivering for both people and planet.**

Environmental, economic, and social goals are interconnected and equally essential. 'Triple win' solutions that strengthen environmental stewardship, support farmer livelihoods, and improve food security must be the foundation. Climate action cannot succeed if farms are failing, and a food system is not sustainable if it leaves people hungry. Lasting progress depends on solutions that deliver across all three pillars. It's why the UN Sustainable Development Goals (SDGs) acknowledges the interconnectivity of the global drive towards more sustainable societies.

**Livestock production is part of the foundation of sustainable food systems.**

More than 1 billion people rely upon livestock for their livelihoods.[1] Milk and dairy products, meat, and eggs play an essential role in nourishing people throughout their life, especially those vulnerable to malnutrition. Sustainable production means ensuring these foods are available, affordable, and safe, and those producing them can earn a meaningful living. This is particularly important in light of existing hunger crises, including the nearly 700 million who went hungry last year, and a growing population with an expanding middle class.[2]

Livestock also contributes to a more circular, resource-efficient food system. Farm animals convert inedible biomass such as crop residues, grasses and seeds into high quality nutrition for people and return nutrients to the soil through manure. By-products such as wool, hides and skins provide natural resources for other sectors, while grazing animals enable food production on lands that cannot be used for crops. Our world relies upon livestock to deliver high-quality nutrition, support a resilient farm economy and reduce waste within our food systems.

Access the report at worldrenderers.net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By Ron Kotrba, *Biobased Diesel Daily*


# The RFS Dance: 2 Steps Forward, Half Step Back

In the last issue of *Render*, I discussed how two major policy developments from June and July were the impetus for a turning point out of the uncertainty that has plagued the biobased diesel markets since late 2024 and through the first half of this year. These developments, of course, were changes and an extension to the section 45Z clean fuel production credit signed into law July 4 as part of the "big, beautiful bill," and the U.S. Environmental Protection Agency's robust biobased diesel volume proposals for 2026 and 2027 under the Renewable Fuel Standard.

At that point, one of the looming uncertainties that weighed heavily on the industry was how EPA under Trump 2.0 would address the nearly 200 pending small refinery exemption (SRE) petitions, going as far back as the 2016 compliance year, along with the billions of renewable identification number (RIN) credits on the line.

Small refineries are defined as those whose daily average crude oil throughput is 75,000 barrels or less. They were exempted from the RFS program through the 2010 compliance year and, after an extension, through 2012. This meant they did not have to blend biofuels into their fuel supplies for those years or buy RINs to meet federal obligations. In the 2013 compliance year, however, small refineries were not given a blanket exemption but rather could petition EPA every year to get out of their RFS obligations. EPA could then grant an exemption if the agency determined the refinery has demonstrated disproportionate economic hardship. That is how it was supposed to work, anyway.

SREs have been perhaps one of the greatest points of consternation for the biofuels industry for the past decade-plus because the SRE process has been abused at the expense of market certainty — particularly during the first Trump administration — undermining EPA's outwardly appearing robust RFS volumes over the years. As a result, SREs and how they are handled are often the subject of lawsuits and court decisions.

In June, when EPA released its bigger-than-expected proposed 2026 and 2027 RFS volumes for biobased diesel,

much of the industry reaction was positive — but the optimism was tempered with concerns over how the agency would deal with the pending SRE petitions and new ones moving forward.

On Aug. 22, some of this angst was quelled when EPA published its decision on 175 SRE petitions from 38 refineries seeking exemption from their RFS obligations for the 2016-2024 compliance years.

The agency granted full exemptions to 63 petitions, 50% partial exemptions to 77 petitions, denied 28 and ruled seven to be ineligible. On first blush, this sounded like a devastating blow to the biofuels sector — Trump 2.0 EPA partially or completely approving 140 of 175 SRE petitions — and it felt like 2019 all over again. For a moment anyway. Then, when I started reading through the decision, talking with people and gauging the plethora of industry reactions that came in the wake of the announcement, even I was surprised after covering the biodiesel industry for more than 20 years how the feeling of dread somewhat dissipated.

EPA often issues these types of announcements on Fridays, and Aug. 22 was indeed a Friday. Usually, the agency will publish a proposal, decision or announcement mid- to late morning and then the emails from trade groups come rolling in shortly after. This time it was different. It was crickets for about two hours before the first email from an industry group arrived in my inbox. During that time, in between reading sections of EPA's documents, I was checking various associations' websites trying to get an early read on what groups were saying. It was unusually silent. In hindsight, it appears that these organizations were as stumped as I was about their initial reactions versus how they viewed the decision minutes or hours later.

While there were wariness and concern expressed by some associations, naturally, other industry trade groups were saying they were "encouraged by" the decision, or how it was "a big step forward" in getting SRE uncertainty out of the market.

EPA framed its decision this way: "With today's action, EPA is getting the SRE program back on track with an approach that recognizes some small refineries are impacted more significantly than others and that EPA's relief should reflect those differences." EPA also reaffirmed a policy to return RIN credits previously retired for compliance when a small refinery receives an exemption for a prior compliance year. Under the RFS program, RINs have a two-year window for use, covering the compliance year in which they were generated and the following compliance year.

"Therefore," EPA stated, "while 2022 and earlier vintage RINs are not eligible for use to meet the open 2024 compliance obligations or future obligations, these vintage RINs can be used to demonstrate compliance for prior compliance years consistent with their two-year window. Ultimately, this means that the 2022 and earlier vintage RINs will not impact the number of RINs available to meet 2024 and future compliance obligations and are not expected to impact demand for biofuels." The agency said it does not plan to propose reallocation of any of the exempted volumes for any SREs from 2016 through 2022 in light of the limitation on their potential use.

"While we can quibble with the justification of the SREs granted, the EPA was spot-on in reissuing the same retired RFS credits back to the refiners who received an exemption," said Monte Shaw, executive director for the Iowa Renewable Fuels Association. "This is consistent with past actions when the shoe was on the other foot and is in line with the overall goals of the RFS."

The Renewable Fuels Association said although it continues to question whether these SREs are justified, EPA's approach for implementing these exemptions "appears reasonable" and should not disrupt the marketplace or reduce actual renewable fuel consumption.

"We appreciate that EPA is focused on an approach that maintains stability in the marketplace and ensures finalized annual volumes under the RFS are maintained," said RFA President and CEO Geoff Cooper. "The exemptions granted [Aug. 22] should have little or no effect on current and future levels of renewable fuel production and use."

## Where Do We Go from Here?

Grant Kimberley, executive director of the Iowa Biodiesel Board, said while it's encouraging to see some progress toward resolving the uncertainty, two big questions remain: What happens with exempted volumes for 2023 and 2024, and how will SREs be handled moving forward?

EPA said it will submit a draft supplemental proposed rule* to the Office of Management and Budget on the proposed reallocations of the 2023 and later compliance year exempted volumes. The agency also said it will be providing updated information on how it intends to project SREs for 2026 and 2027 in the context of establishing percentage standards for those years.

"The proposed adjustments will help ensure that refineries blend the intended volumes of renewable fuel into the nation's fuel supply in 2026 and 2027 after accounting for the SREs granted for 2023 and 2024 in today's actions and projected SREs granted for 2025 to 2027 in Set 2," EPA stated. "The supplemental proposal will seek to balance the goals of the RFS in supporting the production and use of renewable fuels while taking into account economic impacts, following the law, and ensuring opportunity for stakeholder comment."

Kimberley said since the 2023 and 2024 RINs have not yet been retired, how they are handled is critical. "If the gallons are reallocated into the program, it would provide the certainty our industry and farmers desperately need," he said. "If not, this could have very negative consequences for biodiesel producers and soybean oil demand. … Independent biodiesel producers — many of them farmer-owned — are in real trouble if this part of the puzzle isn't solved soon." Kimberley urged the Trump administration to follow through on its earlier commitment that any gallons granted under exemptions would be reallocated back into the program.

Clean Fuels Alliance America expressed wariness of EPA's award to refiners of more than 1.4 billion RINs from compliance years 2023 and 2024 to be used for the delayed

*Continued on page 46*

**The RFS Dance** *Continued from page 45*

compliance deadline for 2024. "EPA indicated it will propose a supplemental rule in the coming month to consider reallocating the associated RIN gallons and address the impact on the recently proposed 2026-2027 RFS volumes," the organization stated. "Clean Fuels looks forward to working with EPA to quickly finalize this proposal, which will delay the finalization of the 2026 and 2027 rule."

Clean Fuels noted that in the recently proposed RFS volumes for 2026 and 2027 and draft regulatory impact analysis, EPA reiterated that its analyses consistently show "all obligated parties — including small refiners — fully recover the costs of RFS compliance" through fuel sales. "EPA's announcement conflicts with its consistent finding that small refiners are not facing disproportionate economic hardships from RFS compliance," said Kurt Kovarik, Clean Fuels' vice president of federal affairs.

The Sustainable Advanced Biofuel Refiners Coalition said it is encouraged by EPA's SRE ruling and, importantly, how the agency intends to handle exempted volumes. "While it is unclear what this will mean for 2025 volumes, the announced intention to propose a supplemental rule reallocating the exempted volumes is welcome news and provides at least some clarity to markets," the organization stated, adding RINs jumped 9% and the bean oil/heating oil (BOHO) spread was up 8% after the news.

Ultimately, two steps forward with the June and July news and a half step back with the August SRE decision is still progress, and it beats a half step forward and two steps back — a dance this industry has performed numerous times in the past. IRFA's Shaw reiterated the crux of the issue. "One absolutely vital question remains — how or if the SREs from 2023 to 2025 will be reallocated," he said. "That is a 2-billion-gallon uncertainty hanging over the market and the pending RFS blending rule for 2026 and 2027." **R**

**Editor's Note: At press time in September, EPA issued a proposed rule on how the agency may deal with reallocating waived 2023-2024 biofuel gallons from SREs it granted Aug. 22, and for 2025 SREs not yet decided on. EPA is proposing to add a new "SRE reallocation volume" term in the percentage standard equations for 2026-2027 RFS volumes that, taken together, would account for the 2023-2025 exempted volumes. EPA has co-proposed two approaches: Additional volume accounting for 100% of the 2023-2025 exempted volumes (2.18 billion RINs), or additional volume accounting for 50% of the 2023-2025 exempted volumes (1.09 billion RINs). Additionally, the agency is taking comment on SRE reallocation volumes equal to other amounts — for example 25%, 75% or even none. Written comments may be submitted to EPA by Oct. 31.*

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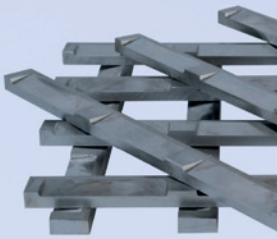

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## Uzelac Industries Announces Grand Opening of Pewaukee Headquarters

Uzelac Industries announced the opening of its brand-new 39,000-square-foot headquarters and manufacturing facility in Pewaukee, Wisconsin. The company is relocating from Greendale to its new site, a significant milestone that marks both growth and a return to its fabrication roots.

The new facility features a twin 40-ton overhead crane bay, a 10-ton crane bay, and a 3-ton crane bay with a 26'7" under hook height, along with advanced equipment including plate rolls, waterjet and press brake capabilities. This expansion will enhance the company's ability to produce its custom-engineered rotary dryers while also supporting fabrication services for large equipment OEMs.

"This new facility represents an exciting milestone for Uzelac Industries," said Mike Uzelac, founder and CEO. "It's an investment in our people, our innovation and our ability to deliver high-quality engineered solutions to customers across the country and world."

## Luter Passes Away

Joseph W. Luter III, former chairman of the board at Smithfield Foods, died Aug. 28 at age 86 in Palm Beach, Florida. Luter was born July 17, 1939, in Norfolk, Virginia. He was the eldest of three children born to Pearl Stockman and Joseph Luter Jr. and the first of his family to graduate from college — he earned a degree in business administration at Wake Forest University.

During his summers, Luter worked various manual labor jobs at Smithfield Packing, the family business co-founded by his father and grandfather. He intended to pursue a career in law, but the sudden passing of his father during his senior year of college changed his plans. Luter returned home and became president of Smithfield Packing at just 26. In 1970, a private equity firm bought the company and he was fired six months later.

In 1975, he received a call that Smithfield Foods was on the verge of bankruptcy. Spurred by the bank's urging and family pride, Luter returned as president and CEO. Over the next 32 years, he transformed the company through bold and aggressive expansion and dealmaking into a $13 billion global food company with operations throughout Europe and North America. Smithfield became the world's largest pork processor and pig producer through his visionary strategies of vertical integration.

Luter is preceded in death by his parents; his sister, Dorothy May Hobson; and many of his beloved King Charles Spaniels. He leaves behind his devoted wife of 25 years Karin Fyrwald Luter; his sister Suzanne Stockman Anderson; his children Laura Luter Gurkin (Scott), Joseph W. Luter IV, Leigh Luter Schell (Richard) and Erika Ingrid Luter; and six grandchildren Jordan, Zack, Joe, Lena, Stuart and Sabrina.

## Oestergaard Opens Office in Spain

Oestergaard announced the opening of a new office in Granollers, Spain. This company stated this milestone marks its continued commitment across the entire region and reinforces its dedication to delivering exceptional service. The new office in Granollers will serve as a hub for local after-sales service and technical support, faster response times and improved spare parts availability, on-site expertise for maintenance, upgrades and repairs, and dedicated sales and engineering teams focused on customer-specific solutions.

## Cole Named Tyson COO

Tyson Foods announced the appointment of Devin Cole as chief operating officer (COO). Cole will oversee the company's

business segments, including poultry, beef, pork, prepared foods and international. He will continue to report to Donnie King, Tyson Foods president and CEO.

Cole has more than 30 years of experience in the industry, Most recently, he served as group president of poultry and international, where he delivered the company's third consecutive quarter of volume growth in poultry and improved profitability to Tyson's international business.

## Woodward Passes Away

Lyle Allan Woodward Jr. died at home July 25 at the age of 65. He was born Jan. 25, 1960, the son of Lyle Allan Sr. and Arlene (Kafton) Woodward in Sioux City, Iowa. He married Judy Willroth Oct. 11, 1980, and the couple made their home in Denison, Iowa, for a short time before settling on a farm near Kiron where they raised their four sons. Woodward dedicated 45 years to Iowa Beef Processors, which later became Tyson Foods, until the plant closed. In 2015, he and Judy relocated to Dakota Dunes, South Dakota, where he continued his career in a corporate role.

Woodward was preceded in death by his parents and son, Nathan Woodward. He is survived by his wife of 44 years, Judy Woodward; his children Shawn (Jill) Woodward, Travis (Ariella) Woodward, and Christopher Woodward; grandchildren Vana, Brianna, Emma , Ryan, Logan, Coltan and Lilly Ann Woodward; brothers Dennis (Jill) Woodward, Bryan (Rebecca) Woodward and Rolland (Suzanne) Woodward; sister Tina (Benjamin) Schulte; nieces and nephews; and many other family members and friends. **R**


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# Mark Your Calendar

## October

**International Feed Industry Federation/FAO Annual Meeting**
Oct. 1, Rome, Italy • ifif.org/global-feed/events/ifif-fao-annual-meeting-2024

**FAO/IFIF Global Feed Regulators Meeting**
Oct. 2-3, Rome, Italy • ifif.org/our-work/project/international-feed-regulators-meeting-ifrm/

**Protein Pact Solutions Summit**
Oct. 8-10, Los Angeles, CA • meatinstitute.org/Events

**American Fats and Oils Annual Meeting**
Oct. 15-16, San Antonio, TX • fatsandoils.org

**Poultry Protein and Fat Seminar**
Oct. 15-16, Nashville, TN • uspoultry.org/programs/education/seminar/#ppfs

**NARA Convention**
Oct. 21-24, Amelia Island, Florida • nara.org/about-us/events

## November

**Equipment Manufacturers Conference**
Nov. 5-7, Rancho Mirage, CA • afia.org/events/calendar/2025-equipment-manufacturers-conference

**Ag Sustainability Summit**
Nov. 18-20, Anaheim, CA • sustainableagsummit.org

## January 2026

**Clean Fuels Conference**
Jan. 19-26, Orlando, FL • cleanfuels.org

**International Production & Processing Expo**
Jan. 27-29, Atlanta, GA • ippexpo.org

**International Rendering Symposium**
Jan. 29, Atlanta, GA, part of IPPE

*Meeting information could change so visit the listed website for updated information.*

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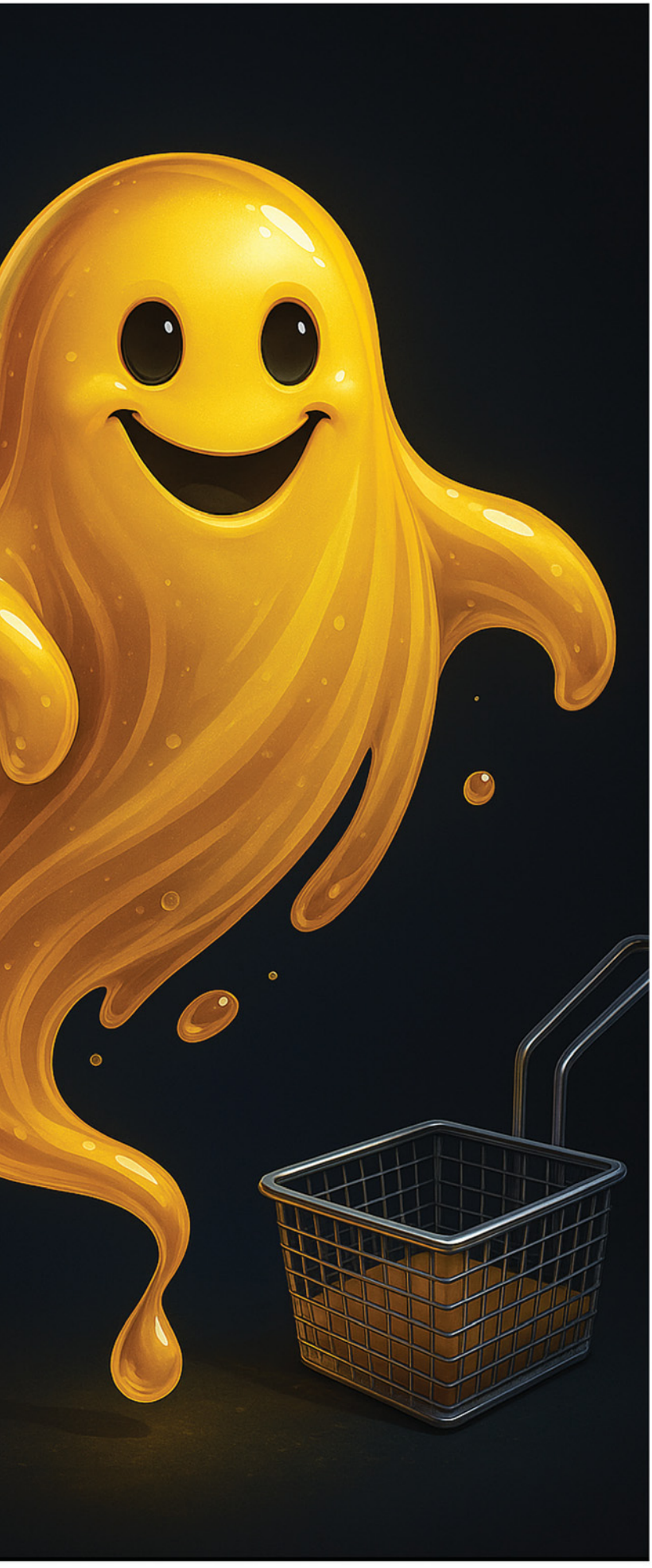

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