

# FOOD PROCESSING

THE MAGAZINE OF THE FOOD INDUSTRY

NOVEMBER/DECEMBER 2023

## PROCESSOR OF THE YEAR: JBS USA

The incredible journey  
and promising future  
of this animal protein  
company • 22



Analyzing the Smucker-  
Hostess deal • 16

Developing holiday  
products • 31

Instrumentation keeps  
an eye on things • 36

# UNIFORMS THAT ARE ALWAYS READY™ FOR MORE

**Our garments are dependably clean and professionally managed.**

Your industry is in a constant state of production. That means you need a reliable partner to keep your business going. Our comprehensive uniform program keeps you running smoothly by providing the clean, consistent garments your workforce needs to get the job done every time.



Third party certified  
hygienically clean  
(Hohenstein)



Technology-based  
garment management



HACCP garment laundry  
and delivery process



Best-in-class  
smocks, aprons  
and butcher coats

WOMEN'S COMFORT BLOUSE



Learn more about our managed  
uniform program at [Cintas.com](https://www.cintas.com).

**CINTAS**<sup>®</sup>  
READY FOR THE WORKDAY<sup>®</sup>

# MAKE YOUR PLANT RUN BETTER...

## WITH LUBRIPLATE 100% SYNTHETIC NSF H1 REGISTERED FOOD GRADE LUBRICANTS.



Engineered from the ground up to provide unsurpassed performance in food processing plants. These high performance, 100% synthetic lubricants provide extended lube intervals, multiple application capability, lubricant inventory consolidation and improved performance. All while maintaining strict H1 safety requirements. Available products include...

### SFGO ULTRA SERIES MULTI-PURPOSE FLUIDS

- Ultra high-performance, 100% synthetic, PAO-based fluid lubricants.
- Available in 13 ISO viscosity grades for a wide variety of applications.
- Extremely Versatile, Recommended for air compressors, hydraulic systems, bearings, gearboxes, chains and more.

### SYNXTREME FG SERIES GREASES

- 100% synthetic, calcium sulfonate complex type greases.
- Super multi-purpose - ideal for a variety of applications.
- They provide excellent anti-wear and extreme pressure protection.
- High temperature stability - effective to 450°F / 232°C.

### PGO-FGL SERIES GEAR LUBRICANTS

- Ultra high-performance, polyalkylene glycol (PAG)-based gear oils.
- The ultimate gear lubricants for demanding applications.



Scan QR Code for More Information About Lubriplate's Products and Services.



PAREVE



Nonfood Compounds  
H1 Registered  
ISO 21469 Certified



HALAL

See the NSF White Book™ for a complete list of registered / ISO21469 certified products.



**Lubriplate**  
H1 LUBRICANTS

Newark, NJ 07105 / Toledo, OH 43605 / 800-733-4755  
To learn more visit us at: [www.lubriplate.com](http://www.lubriplate.com)



INCLUDED AT NO ADDITIONAL CHARGE

Lubriplate's  
**ESP**

**Complimentary Extra Services Package**

COLOR CODED LUBE CHARTS & MACHINERY TAGS  
PLANT SURVEYS / TECH SUPPORT / TRAINING  
LUBRICATION SOFTWARE / FOLLOW-UP OIL ANALYSIS

# We bring color into view!

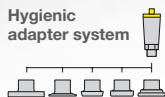
Compact capacitive level switches with  
360° custom-color status display



**256 colors**

Individually selectable:

- Measurement in progress
- Sensor switching
- Process malfunction



Adjustment via  
smartphone

- Completely flush sensing element
- Works on pastes and viscous media
- No spray cleaning shadows
- Very small installation dimensions

**\$484**

VEGAPOINT 24 G $\frac{1}{2}$ "



# CONTENTS

PROCESSOR OF THE YEAR: JBS USA

## The Incredible Journey of JBS USA

From a small Brazilian butcher shop to the biggest animal protein supplier in the world.

22

## A Billion-Dollar Pledge to Become Net Zero

The global company wants to be a leader in environmental concerns.

27

## Evolution Brings Opportunity

Investments in value-added and prepared foods are critical building blocks for its future success.

29

## FEATURES

### PRODUCT DEVELOPMENT

## Holiday LTOs Balance Demand and Production

Consumer interest soars during the holidays and disappears Jan. 2.

31

### PLANT OPERATIONS

## Sensing a Problem

Instrumentation monitors the process and the equipment, and the data revolution is increasing the amount of valuable information that can be gleaned.

36

### CASE HISTORY

## Cargill Upcycles Hershey's Chocolate Waste Into Animal Feed

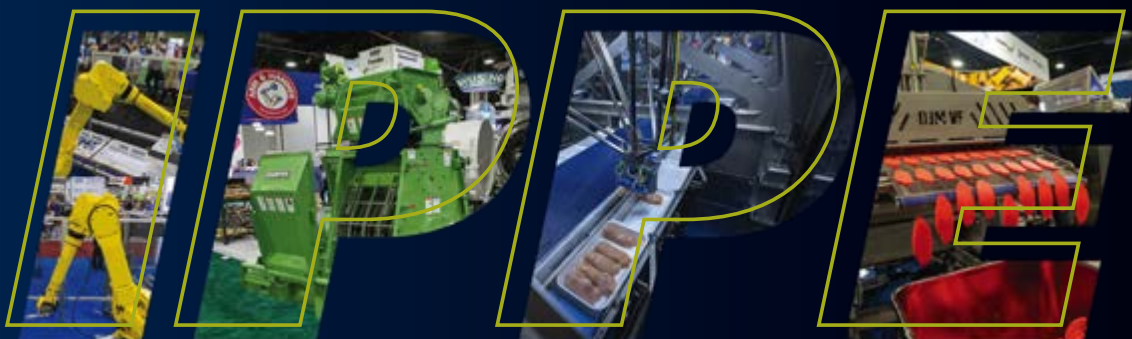
In a win-win: Hershey reduces its landfill waste and Cargill gets a quality feed ingredient.

39



## DEPARTMENTS

EDITOR'S PLATE	7	Q&A: THE HOSTESS DEAL	16
ON THE WEB	8	ROLLOUT	18
FOOD SAFETY	9	NEW INGREDIENTS	35
POWER LUNCH	10	NEW EQUIPMENT	41
NEWS	11	CLASSIFIEDS	42



# EXPERIENCE IT ALL

Experience the latest innovations, solutions for your business and world-class education, while connecting with other animal food, meat, and poultry and egg professionals from around the world. It's all at IPPE 2024. You should be, too!

**JAN. 30 - FEB. 1, 2024**

**ATLANTA, GA USA**

**[ippexpo.org](http://ippexpo.org)**

# JBS Becomes a Good American Citizen

After some bumps and missteps early on, the Brazilian and American companies truly belong.

I was in this same job back in 2007 when Brazilian firm JBS S.A. bought the venerable, 152-year-old meat processor Swift & Co. It wasn't the first acquisition of an American company by a foreign one, but it was one of the biggest at the time.

There was plenty of concern about foreigners taking over a key U.S. food provider, one with market share, name recognition and a long history. (Remember all the rancor when a Chinese firm bought Smithfield?) The Brazilians were considered opportunists, and many questioned their ability to manage a business in the States, especially since it instantly quintupled the parent firm's size.

The concerns only grew when, in the following few years, JBS also bought Smithfield's beef operations, Cargill's pork operations and the huge but bankrupt poultry processor Pilgrim's Pride. It was a difficult time for animal protein companies in the U.S. These Brazilians looked like tubarões (I think that's Portuguese for sharks).

Early on, there were a few missteps by the Brazilian parent firm and the American company that emerged from all that: JBS USA. There were investigations back in Brazil, an attempted U.S. initial public offering of stock torpedoed by outside accountants. Just last month, two members of the founding Batista family were found not guilty of insider trading.

We're aware of all that. But in recent years, what has emerged is not just the second biggest animal protein processor in the U.S. but a company that has gone to great lengths to be a good corporate citizen. An American citizen.

We're happy to name JBS USA our 19th Processor of the Year. In three stories within this issue, we take a look at the history and the business, the company's efforts toward value-added products and the parent firm's commitment to be net-zero in greenhouse gas emissions in all its operations by 2040.

As we dug into our research, we found a company that pays community college tuition for all its employees and their children. That has built educational, recreational and social service infrastructures in the communities it operates in, including two affordable housing projects in partnership with Habitat for Humanity. And has managed to keep 150,000 Americans and Canadians employed while other North American animal protein suppliers currently are closing facilities and laying people off.

The American company has had a transformational effect on its Brazilian parent – and not just because it accounts for more than half of global sales. JBS S.A. would not be where it is today without that American influence ... and American meat processing would not be where it is today without JBS.

## Processors of the Year

2022: Hershey  
 2021: Mondelez  
 2020: Perdue Farms  
 2019: Hearthside Food Solutions  
 2018: Smithfield Foods  
 2017: Pinnacle Foods  
 2016 General Mills  
 2015 PepsiCo  
 2014 WhiteWave Foods  
 2013 ConAgra  
 2012 Chobani Inc.  
 2011 H.J. Heinz Co.  
 2010 TreeHouse Foods  
 2009 Nestle USA  
 2008 Hormel Foods  
 2007 Mars Snackfood  
 2006 Kellogg Co.  
 2005 Tyson Foods

## Take our manufacturing survey

As we close out this year, one of our January outlook stories will be based on our annual Manufacturing Outlook Survey, which depends on your help to paint a picture of how the new year looks from a manufacturing perspective. Please take 5 mins. to respond at [www.research.net/r/Y77VFNH](http://www.research.net/r/Y77VFNH). ■

*Dave Fusaro*



Written by  
**Dave Fusaro**

EDITOR IN CHIEF

DFUSARO@ENDEAVORB2B.COM

# What's New Online

Don't miss what's happening on [FoodProcessing.com](http://FoodProcessing.com).

**A**s you'll notice, this is a combined November/December issue, which makes it our final issue of 2023. Which makes it even more important for you to make regular scans of our website. We'll be back in January, but till then keep in touch with these web-only features.

## WEBINAR



### Sustainable Food & Beverage Plants

Hormel's Fontanini Foods plant was our Green Plant of the Year. Officials from both Hormel headquarters and the Fontanini facility will discuss how the plant saved energy and improved its wastewater pretreatment system, as well as discussing sustainability in general in this Dec. 12 event. [bit.ly/3QpNc5f](https://bit.ly/3QpNc5f)

## SURVEY



### Take Our Manufacturing Outlook Survey

Lend your insights to our very brief annual Manufacturing Outlook Survey so we can provide a comprehensive look at manufacturing-oriented sentiment for the new year. Do you anticipate your production to be up or down? Hiring or laying people off? And generally,

how good do you feel going into 2024? Take 5 mins. to fill it out and we'll enter you in a drawing for one of four \$50 Amazon gift cards. The story will be in our January issue and online. [www.research.net/r/Y77VFNH](http://www.research.net/r/Y77VFNH)

## EHANDBOOKS



### Ebooks on Wastewater Treatment, Automation

Ehandbooks are educational ways to take a deep dive with us on topics important for your job. Our final two ehandbooks of the year will be Wastewater Treatment in November and Automation in December. To see those and all the ebooks we've created this year, click on the QR code or browse to... [www.foodprocessing.com/handbooks](http://www.foodprocessing.com/handbooks)

## FEATURE



### Private Label's Sales, Manufacturing Health

Private label/store brand manufacturers are planning for a great year ahead. 2023 is coming in with expected dollar sales increases but volume looks like it will hold steady – as opposed to the volume declines of branded products. We have a web-only report from their annual trade show held Nov. 12-14 in suburban Chicago. [foodprocessing.com/33014383](http://foodprocessing.com/33014383)

## EDITORIAL TEAM

EDITOR IN CHIEF

**Dave Fusaro**

[dfusaro@endeavorb2b.com](mailto:dfusaro@endeavorb2b.com)

SENIOR EDITOR

**Andy Hanacek**

[ahanacek@endeavorb2b.com](mailto:ahanacek@endeavorb2b.com)

CONTRIBUTING EDITORS

**Ed Avis, Claudia O'Donnell**

**Lisa Payne**

Reprints Marketing Manager,  
Massberg & Co. Reprints  
[lpayne@massbergco.com](mailto:lpayne@massbergco.com)  
(574) 289-9253

## EDITORIAL ADVISORY BOARD

**Mohamed Z. Badaoui Najjar, Ph.D.**  
**James Davis | Leslie Herzog | Steven Hill, Ph.D.**  
**Leslie Krasny | Evangelia Pelonis**  
**Jagriti Sharma | Tony Verlezza**  
**Joel Warady | Elaine Wedral, Ph.D.**

## DESIGN & PRODUCTION

ASSOCIATE ART DIRECTOR

**Ashley M. Doles**

[adoles@endeavorb2b.com](mailto:adoles@endeavorb2b.com)

SENIOR PRODUCTION MANAGER

**Anetta Gauthier**

[agauthier@endeavorb2b.com](mailto:agauthier@endeavorb2b.com)

AD SERVICES MANAGER

**Rita Fitzgerald**

[rfitzgerald@endeavorb2b.com](mailto:rfitzgerald@endeavorb2b.com)

## EXECUTIVE STAFF

VP/GROUP PUBLISHER

**Keith Larson**

CIRCULATION REQUESTS

**Lori Books**

## ENDEAVOR BUSINESS MEDIA, LLC

CEO

**Chris Ferrell**

PRESIDENT

**June Griffin**

CFO

**Mark Zadell**

COO

**Patrick Rains**

CRO

**Reggie Lawrence**

CHIEF DIGITAL OFFICER

**Jacque Niemiec**

CHIEF ADMINISTRATIVE AND LEGAL OFFICER

**Tracy Kane**

EVP INDUSTRIAL GROUP

**Mike Christian**



Endeavor Business Media, LLC

30 Burton Hills Blvd, Ste. 185, Nashville, TN 37215  
800-547-7377.



# California Bans Four Food Ingredients

Brominated vegetable oil, potassium bromate, propylparaben and red dye No. 3 must be removed by Jan. 1, 2027.

C

California Gov. Gavin Newsom in October signed into law Assembly Bill 418, which prohibits the use of four food and drink ingredients to be used in any products sold in the state effective Jan. 1, 2027.

The four ingredients — brominated vegetable oil, potassium bromate, propylparaben and red dye No. 3 — had been targeted as dangerous to human health by the authors of the bill and their supporters. Newsom stated in his announcement of the signing that the ban was a positive step forward for public health “until the United States Food and Drug Administration reviews and establishes national updated safety levels for these additives.”

The bill, titled the California Food Safety Act, was passed by the California legislature in September, but the version that became law removed a fifth ingredient, titanium dioxide, from the ban. All five ingredients (including titanium dioxide) have been banned in Europe.

These ingredients have been shown to cause various health issues in some studies when given to animal subjects in large amounts. But whether the ingredients truly pose a threat to human health at the small levels at which they are present in foods has been hotly debated by activists and industry alike.

“They’re making decisions based on soundbites rather than science,”

replied the National Confectioners Assn. (NCA). Some of the ingredients, particularly red dye No. 3, are used by the candy industry. “Governor Newsom’s approval of this bill will undermine consumer confidence and create confusion around food safety.”

NCA’s statement added that the law replaces a uniform national food safety system with what could become a patchwork of inconsistent state requirements created by legislative fiat that will increase food costs. “This is a slippery slope that the FDA could prevent by engaging on this important topic. We should be relying on the scientific rigor of the FDA in terms of evaluating the safety of food ingredients and additives.”

The International Assn. of Color Manufacturers (IACM) also chimed in, specifically on the inclusion of red dye No. 3 on the list, stating in part: “No regulatory authority, including FDA, the European Food Safety Authority (EFSA), and the Joint FAO/WHO Expert Committee on Food Additives (JECFA), has found credible safety concerns with FD&C Red No. 3 and maintains it is safe for use in food.”

A few days later, NCA sent a letter to FDA urging the agency to use its authority to override the California law. FDA has neither banned nor updated safety levels for these additives.

“We are urging FDA to get more involved and defend its legal, fiduciary and moral responsibility as our nation’s chief and centralized food

safety agency,” said the letter from NCA President/CEO John Downs to FDA Commissioner Robert Califf. “It’s time for FDA to get off the sidelines and clear up this misinformation, because the fact of the matter is that California is out of its depth when it comes to national food safety standards and regulatory processes.

“As you know and might agree, Governor Newsom and the California legislature, in enacting AB 418, have completely overstepped their area of expertise. Undoubtedly, the action in California has led and will lead to similar legislative proposals in other states which could result in bans of additional food ingredients that completely decentralizes FDA’s authority and create a massive patchwork of requirements for U.S. food manufacturers.

“As you know, there are limited or no alternatives for some of the ingredients subject to the California ban. [USDA] estimated that it could take a decade or longer to develop and obtain FDA approval for a safe replacement for a color additive. Take the case of brominated vegetable oil (BVO) for example. As you well know, FDA conducted two scientific studies on its own, found new data related to safety risks and initiated steps to remove BVO from the food supply in this country. This is how our food safety system was designed to work.”

There was no immediate response from FDA. ■

# Help Create a Food Microbe Database

The Global Branded Food Products Database invites food processors to contribute health data on yogurt cultures and other live microbes.

**W**ant to get in on the ground floor of new health data on yogurt and other microbes?

The partners behind the USDA Global Branded Food Products Database have for the first time made it possible for food manufacturers to contribute to the database information on live microbes in the foods and beverages they produce, creating the opportunity to advance new health research. With this new knowledge, a new frontier may open, alerting us to the health promise of consuming foods with beneficial live microbes.

Microbes in food include bacteria and yeasts, and their presence can depend on the amount of processing the food has undergone or specific strains of bacteria that have been added. It's understood there is a link between consumption of live, safe microbes and positive health outcomes for cardiovascular, gastrointestinal and metabolic health benefits. Enough of these studies have accumulated now that scholars are ready to collect more data and take this to the next level.

With help from food manufacturers, researchers may be able to evaluate whether a recommended intake level for microbes from foods is supported by science. These data will allow for assessments of whether intake of live microbes can be causally linked to specific health benefits at the population level. For policymakers and health experts,

this information could be valuable in understanding what amounts of daily intake impact health and why.

The database enhances USDA FoodData Central with ingredient and nutrition composition data on branded and private label foods provided voluntarily by the food industry.

**"These data are available to inform agricultural and food policy decisions."**

The impact of industry providing these data is substantial; it means these data are available to inform agricultural and food policy decisions by federal agencies and support research and regulatory queries by the public and private sectors.

(The partners in this public-private partnership are USDA, IAFNS, GS1 US, 1WorldSync, NielsenIQ Label Insight and the University of Maryland. For more information on the USDA Global Branded Food Products Database, visit <https://fdc.nal.usda.gov/>.)

The project is part of IAFNS' programs that catalyze new science relevant to food safety and nutrition. While some scientists have hypothesized that consuming live microbes may be beneficial to health, understanding this relationship and the potential benefit of a recommended intake range requires a systematic approach. This approach includes

evaluation of existing evidence, addressing gaps and placing knowledge within a data framework.

As part of this systematic approach, the initial steps are to map the scientific literature to determine the breadth of evidence available to support knowledge on

live microbe intake and health outcomes. Additionally, as live microbes from fermented foods are especially common in the Korean diet, it is valuable to also investigate a Korean health and nutrition database. The importance of understanding the data, including international data, advances research on this topic.

Consider adding data to get us to the next level. Live microbe data can be submitted to the USDA Global Branded Food Products Database via 1WorldSync. For more information, contact [science@iafns.org](mailto:science@iafns.org). ■



Written by  
**Wendelyn Jones**

Dr. Wendelyn Jones is Executive Director of the Institute for the Advancement of Food and Nutrition Sciences ([iafns.org](http://iafns.org)).

# NEWS

## IN THIS SECTION

- » Machine bankrupted processor
- » OSHA fines R.M. Palmer
- » Travis Kelce BBQ products

## Ferrara Candy Co. Buys Jelly Belly

Adds to the sugar-candy portfolio that includes Nerds and SweeTarts.

**F**errara Candy Co., already the third largest candy company in the U.S. counting the assets of parent Ferrero Group, plans to acquire Jelly Belly Candy Co. Financial terms were not disclosed. The famous jelly beans join Ferrara's portfolio of sugar candies, products that include Nerds, SweeTarts and Brach's.

Ferrara plans to bring on board 800 global Jelly Belly employees and the company's facilities in California, Illinois and Thailand. Jeff Brown, currently Jelly Belly's executive vice president of global operations and distribution, will become the chief executive officer of Jelly Belly.

Jelly Belly was founded in Illinois in 1869 and has been family-owned and -operated through six generations of the Rowland family. The signature jelly beans were introduced in 1976, and today the company distributes its products in more than 60 countries across five continents and has a strong track record of sustained and profitable growth, the news announcement claimed.

The transaction, which is being executed through Ferrara's lead holding company, CTH Invest, is expected to close by the end of 2023.

## Brominated Vegetable Oil Banned by FDA

After numerous calls for government agencies to revisit research on brominated vegetable oil (BVO), as well as its recent ban in California, the FDA in October moved to revoke regulations allowing its use in food products.

The agency has concluded BVO in food is no longer considered safe based on studies conducted in collaboration with the National Institutes of Health that found the potential for adverse health effects in humans.

BVO is vegetable oil that is modified with bromine and used in small amounts to keep citrus flavoring from separating and floating to the top of some beverages. While the ingredient was removed from the FDA's generally recognized as safe list in the late 1960s, the agency decided there was not enough evidence for a ban. Instead, it limited the acceptable amounts of BVO in beverages to 15 parts per million.

Many beverage makers reformulated recipes to replace BVO over time. The *Washington Post* story noted its use in Sun Drop soda but reported Keurig Dr Pepper was already planning to phase out the ingredient.

## PRODUCT OF THE MONTH

Tired of breakfast crumbs on the kitchen floor? Just in time for holiday gifting, Kellanova's (formerly Kellogg's) Eggo brand and Bissell partnered to create the EggoVac. It looks like a waffle but cleans like a vacuum and mop – it's a modified version of Bissell's SpinWave R5 robotic cleaning machine. You can buy it only on EggoVac.com for just \$150 while supplies last. And it comes with about \$50 worth of Eggo waffles. Crumbs sold separately.



## Bankrupt Snack Company Wins \$21M Verdict From Supplier for Defective Machine

A jury in Santa Rosa, Calif., awarded \$21 million to a snack company that went bankrupt because a machinery supplier repeatedly failed to come up with a machine to commercialize its product.

Smashmallow, a Sonoma Brands portfolio company, created its eponymous snackable marshmallows, a product that was unique to the American market, in 2016. It contracted with Dutch food machine builder Tanis Food Tec to build a machine to scale up its marshmallow production, according to the BraunHagey & Borden law firm, which represented Smashmallow.

“Smashmallow paid the defendant millions of dollars, but the machine was defective and unsafe,” said the law firm. “After years of work and hundreds of thousands of dollars of repairs, the machine still could not make marshmallows to Smashmallow’s specifications, and Smashmallow had no choice but to wind down its operations.”

Smashmallow sued the machine manufacturer and – two years after filing and following a six-week trial – was awarded the damages on Oct. 20.

## OSHA Fines R.M. Palmer for Not Evacuating Employees Before Deadly Explosion

The U.S. Dept. of Labor fined R.M. Palmer Co. \$45,500 for failing to evacuate employees despite the fact that some reported smelling gas before the March 24 explosion that killed seven workers at the company’s West Reading, Pa., facility.

After an investigation, the department’s Occupational Safety and Health Administration determined R.M. Palmer Co. did not remove workers from the manufacturing plant despite workers’ concerns about what turned out to be a natural gas leak, OSHA announced Oct. 5. The agency cited the company under its general duty clause for not evacuating workers.

OSHA also cited R.M. Palmer for not marking emergency exit signs clearly, using flexible cords improperly and for recordkeeping violations.

“The company could have prevented this horrific tragedy by following required safety procedures,” said OSHA Area Director Kevin Chambers.

Seven workers died and 10 more were hospitalized when an explosion tore apart the chocolate-making facility in downtown West Reading. After the tragedy, workers told investigators they had smelled gas in the days leading up to the explosion.

One worker claims she was saved when she fell through the floor into a vat of liquid chocolate. While the chocolate extinguished her arm, which had caught fire, she broke her collarbone and both heels in the fall. She was trapped for nine hours until she was rescued.

In July, the National Transportation Safety Board said it found cracks in a natural gas service tee retired from service in 2021, but not disconnected from the gas supply.

→ Striking while the iron is hot...

Travis Kelce is sharing his love for Kansas City BBQ with the launch of Travis Kelce’s Kitchen, a new line of refrigerated entrees available exclusively at select Walmart stores. The seven dishes, manufactured by Golden West Food Group, are Bacon Mac & Cheese, Brisket Burnt Ends & BBQ Sauce, BBQ Baked Beans with Burnt Ends, Brisket Burnt Ends with Mac & Cheese, Sliced Brisket in BBQ Sauce, BBQ Baked Beans with Sausage, and Sausage and Meatball Marinara with Peppers and Onions. Like the tight end himself, they don’t come cheap: prices range from \$8.17 for the beans and sausage to \$12.78 for the Brisket Burnt Ends & BBQ Sauce and the sliced brisket. There was no mention of Taylor Swift being involved.



## Tyson Buys Into Insect Company

Tyson Foods made a two-fold investment in Netherlands-based insect ingredients company Protix. Tyson paid for a minority stake in Protix, while a joint venture between the companies will allow for the construction of an insect ingredient facility in the U.S. It will use animal waste to feed black soldier flies, which will then be turned into food for pets, poultry and fish.

## Acquisitions

**Post Holdings Inc.**, which purchased several pet food brands and the private label pet food business from **J.M. Smucker Co.** in April, has now agreed to acquire **Perfection Pet Foods LLC** for \$235 million. Perfection is a private-label and co-manufacturer of pet foods and baked treats with two processing facilities in Visalia, Calif., which are included in the acquisition.

**Mondelēz International** completed the sale of its developed-market gum business in the U.S., Canada and Europe to global gum and confectionery manufacturer **Perfetti Van Melle Group**. The Portuguese portion of the business is still awaiting regulatory approval in

that country. Mondelēz will continue to operate its gum business outside these regions. The sale includes such U.S. brands as Trident, Dentyne, Stimorol, Hollywood, V6, Chiclets, Bubbalo and Bubbalicious, as well as European gum brands and two manufacturing facilities — one in Rockford, Ill., and the other in Skarbimierz, Poland.

Snack manufacturer **Utz Brands Inc.** sold its Bluffton, Ind., plant, which makes products associated with the TGIF brand and some of Utz's kettle chips, to **Super-Pufft Snacks USA Inc.** A co-manufacturing agreement will continue production of some of those products until Utz can shift production to its own facilities. Utz also will close its Carlisle Street Plant in Hanover,

Pa., the company's oldest, in Q1 of 2024. Additionally, Utz has decided to list for sale its Louisiana and Alabama processing facilities, and signed a built-to-suit agreement for a new, leased, approximately 650,000-sq.-ft. distribution center in Hanover.

**TreeHouse Foods**, which has been divesting more than buying lately, in October announced a small acquisition. It will pay **J.M. Smucker Co.** \$20 million for Bick's pickles, Habitant pickled beets, Woodman's horseradish and McLarens pickled onions brands. TreeHouse said it's growing its pickles category and allows it to expand into Canada. TreeHouse had a co-packing arrangement with Bick's for many years.

# Food Processing Wall & Ceiling Panels

## Corrosion-Proof Poly Board® Panels

- Perfect for Incidental Food Contact
- Sanitary - Easy to Clean
- Smooth - Non-porous
- Water-Proof - Highly Reflective
- High-Gloss - Bright White
- Will Not Rot, Rust, Mildew, or Corrode
- Quick Installation with Custom Lengths
- Available in 12", 16", and 24" Widths
- No Exposed Fasteners
- Class A for Smoke and Flame
- USDA and CFIA Accepted
- Made in the U.S.A.

Call TODAY for Details!

View our web site to learn more about all our products.

ISO 9001:2015 QMS Certified

P224 Partition Wall Panel  
2-1/4" x 24" wide

ICC **ES** LISTED ESR-4583

**20** YEAR LINER PANEL WARRANTY  
EXTRUTECH PLASTICS, INC.

Since 1992

**EXTRUTECH PLASTICS, INC.**

[www.epiplastics.com](http://www.epiplastics.com)

Phone: 888-818-0118

## Expansions

**Hill's Pet Nutrition** in October opened its newest manufacturing plant in Tonganoxie, Kan. Parent **Colgate-Palmolive** spent more than \$250 million on the 365,000-sq.-ft. "smart" facility, which sits on more than 80 acres and will produce canned pet food for the Hill's Science Diet and Prescription Diet brands. The plant's construction was announced in June 2021.

**Walmart** will build and operate a milk processing facility in Valdosta, Ga. Price was not disclosed, but it's expected to create 400 jobs. It will break ground later this year, with an anticipated opening date in 2025. Products from this facility under Great Value and Member's

Mark brands are expected to reach more than 750 Walmart and Sam's Club stores in the southeastern U.S. Walmart's first milk processing facility was opened in Fort Wayne, Ind., in 2018.

**Keurig Dr Pepper** plans to invest \$100 million to expand its coffee roasting facility in Moore, S.C., according to local news reports. The expansion is expected to create 250 new jobs by 2027. The \$380 million facility just opened two years ago. The square footage of the expansion was not reported, but the current facility sits just over 708,000 sq. ft.

**Stellar Snacks**, a mother-daughter-owned company, plans its second pretzel production plant, a \$137 million investment over 10 years in a 434,000-sq.-ft. pretzel bakery facility

in Louisville, Ky. The new plant will not only meet increasing demand for the company's pretzel braids but will enable expansion into the mid-South and East. Elisabeth (mother) and Gina (daughter) Galvin founded Stellar Snacks in 2019. This will be their largest pretzel bakery; the company operates a manufacturing plant and a warehouse in northern Nevada.

Frisco, Texas-based **Ruiz Foods**, which makes frozen Mexican foods, has acquired two new facilities in Vernon, Calif., which will increase its manufacturing space by approximately 150,000 sq. ft. The new production lines should become operational during the first half of the company's 2025 fiscal year. They're near a Vernon facility the company purchased in October 2022.

# NELSON JAMESON

INC.

Delivering the exceptional™

## Above and beyond is where we start™



### Serving the Food Processing Industry with Top Brands



[nelsonjameson.com](http://nelsonjameson.com)

## JBS Starts Work on Brazil's First Cultivated Protein Research Center

JBS S.A. in late September began construction on a cultivated protein R&D center in Florianópolis, Santa Catarina. When it opens at the end of 2024, it will be the largest research facility focused on food biotechnology in Brazil, the company says.

The world's largest meat processor initially will invest US\$22 million in the JBS Biotech Innovation Centre for the construction of lab facilities (phase 1) and a pilot plant (phase 2). It will have a scientific team of 25 specialist post-doctoral researchers, as well as staff and clerical support.

In the third stage, an industrial scale model will be built to demonstrate the technical and economic viability of cultivated protein, a

model for future plants that JBS may build globally. In total, the facility is budgeted for \$62 million over three phases.

The initial aim of the facility is to make the production process for cultivated protein more efficient, scalable and economically competitive. When the plant reaches the commercial stage, the resulting cultivated protein initially will reach consumers in the form of prepared foods, such as hamburgers, sausages, meatballs, among other forms. The technology has the potential to produce beef, as well as chicken, pork and fish.

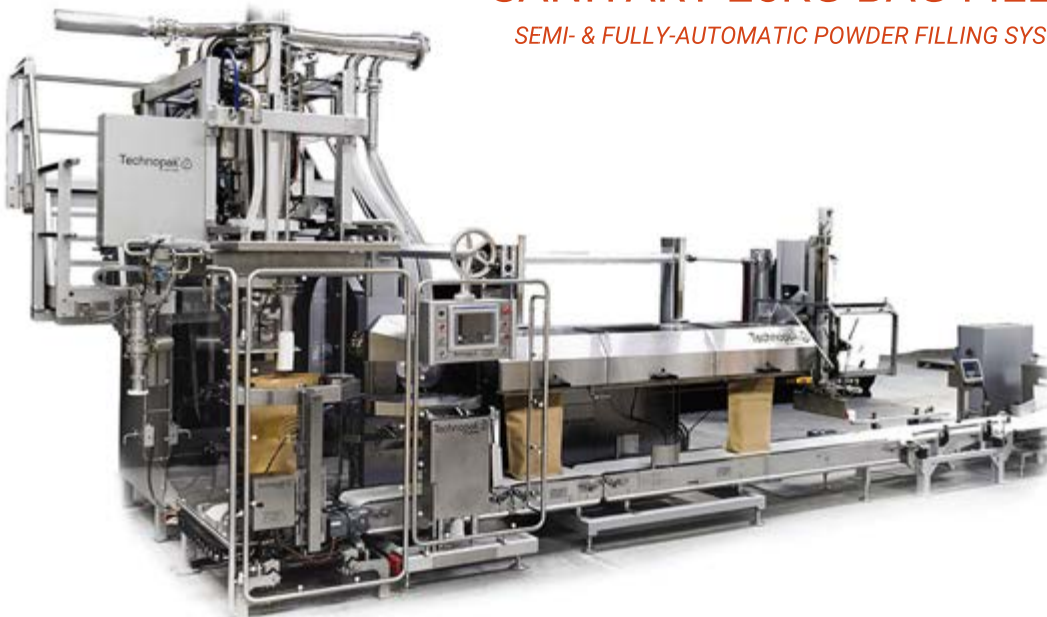
"As a global leader in protein production, it is our responsibility

to be at the forefront of foodtech," said Jerson Nascimento Jr., JBS' global supply and innovation director. "The JBS Biotech Innovation Centre reinforces our commitment to the cultivated protein sector, consolidates our position as one of the main players in this very promising market."

JBS is the controlling shareholder in Biotech Foods, a Spanish cultivated meat company operating a pilot plant in San Sebastián and building what it claims will be the world's largest cultivated beef plant, also in San Sebastián. With an investment of \$41 million, that commercial-scale plant is scheduled for completion in mid-2024.

## SANITARY 25KG BAG FILLING

SEMI- & FULLY-AUTOMATIC POWDER FILLING SYSTEMS



Integrated powder feed & palletizing solutions

Capacities from 60 to 600 bags/hr +

Hygienic design & dust-free operation

Custom designed for your specifications & requirements



[www.ppowder-solutions.com](http://www.ppowder-solutions.com)  
877-933-2556

# Analyzing Smucker's Purchase of Hostess Brands



**Geoff Coltman**  
Vice President,  
Catena Solutions

**I**n September, The J.M. Smucker Co. announced it would acquire Hostess Brands for \$5.6 billion, giving Smucker an instant entry into the sweet snacks and baked goods channel, as well as opening up new avenues for distribution for both companies' brands.

In response to the news, *Food Processing's* Food For Thought podcast spoke with Geoff Coltman, vice president at Catena Solutions (XXXX), a supply chain-focused consultancy with deep ties to the food & beverage space. Coltman offered his insights on what it means for each of the companies involved, its customers and the industry at large. What follows is a portion of the interview. Hear the entire interview at [www.FoodProcessing.com/33012263](http://www.FoodProcessing.com/33012263).

**Food Processing: What was your initial reaction to the announcement that The J.M. Smucker Co. was acquiring Hostess Brands?**

**Geoff Coltman:** Truthfully, I was not surprised. ... It makes a ton of sense if you read through the CEO of Smucker's comments on why they bought Hostess, what they were going for, and [it] makes a ton of sense for what Smucker is looking to do with diversifying

their portfolio. So I guess, in short, I'm not surprised. And nobody should be surprised moving forward with any new M&A activity that comes up.

**FP: Many years ago, when Hostess Brands was at rock bottom, we read all the headlines about how Twinkies and HoHos might be going away, and everyone was concerned about losing these beloved products. How impressive has the resurrection of Hostess been over that long-term period, in your opinion?**

**GC:** What a turnaround from what they did to build value, to build a want and a need for another organization to then acquire them. Hostess isn't just going to be the brand that you see on the end cap at the gas station anymore. I think you're going to see a lot more of a commercialization, retail mix for Hostess now,





along with that C-store placement for Smucker products. But in terms of the turnaround, it might be a top-20 success story in terms of bankruptcy to profit, truthfully.

**FP: You've just hinted at some of the implications, but let's talk about those a little bit. What are the impacts you expect to see come out of this deal?**

**GC:** As a consumer, I'll tell you my hopes and wants. You're going to start to see cross-collaboration. How cool would it be to see a Hostess CupCake with Smucker jelly inside of it? How cool would it be to see a Twinkie with peanut butter inside of it? All of the Smucker and Hostess brands, start to combine those and cross-pollinate them, and the SKUs can grow exponentially as long as it makes sense on the innovation side of what they're doing. On the business side, we're going to see more access for Smucker brand items into convenience stores. Their CEO said the reason they made the deal was the commercialization and the avenue to diversify their revenue through convenience stores. And then you're going to see Hostess more in a retail environment than just a small section next to the donuts. I think you're going to probably see more of that Hostess brand alongside those Smucker brands on the shelves at your retail supermarket in one way or another.

**FP: Overall in food & beverage, the M&A activity seems to be on an upswing lately. What do you see driving that uptick?**

**GC:** The food & beverage world of consistency is no longer consistent by any means. People want more variety. But, generally, the business decision

of "Do we compete by making our own or does it make sense just to acquire it?" is happening at a faster pace. M&A has always been a part of food & beverage companies in general. It goes back with Pepsi buying Gatorade and then Coke having to compete with Gatorade. The back and forth between the competitors has always been in food & beverage, I just think that there

store — see if it's setting a trend and moving forward. Generally speaking, if you see something new in the grocery store, do research on it; there's going to be a trend that follows that in the future if it catches.

Acquisitions are not going to slow down. Every company has it as a part of their strategy to diversify portfolios and meet customer demand. The

**"We are at a very cool point in food & beverage, and it's going to grow exponentially for the industry as things continue to become better, faster, healthier and better for everybody who's consuming the products."**

is a bigger spotlight on it with the speed to market now.

**FP: What other long-term trends do you see with M&A moving forward in food & beverage?**

**GC:** What is really interesting about food & beverage is that the smaller organizations set the landscape for the larger ones, truthfully. For example, Kind hits the market years ago as a health bar and then it gets acquired by Mars; Clif Bar set the market years ago and then it gets acquired by Mondelez. So, to follow the trends of what is going to happen in the M&A space, go follow the new products on the market. What finally hits the shelf for the first time at your grocery

ones that are driving change in consumer habits are coming from the smaller entry to the market that then catches fire or catches the attention of those larger brands. I think we are at a very cool point in food & beverage, and it's going to grow exponentially for the industry as things continue to become better, faster, healthier and better for everybody who's consuming the products.

*Hear the complete Q&A on Food Processing's Food for Thought Podcast by clicking on the QR code below or go to [www.foodprocessing.com/33012263](http://www.foodprocessing.com/33012263). We have dozens of podcasts recorded on all kinds of subjects; for the full list, see [www.FoodProcessing.com/podcasts](http://www.FoodProcessing.com/podcasts). ■*



### Food For Thought

Hear the conversation by tuning in to Food Processing's Food For Thought podcast.

# ROLLOUT

## Croissants Now Come in Slices

Instead of running out the door every morning, consumers are looking for more ways to sit down, take a moment and enjoy themselves at the breakfast table. **Thomas'**, a leading brand of grocery store English muffins and bagels in the U.S., now offers **Croissant Bread**, a twist on the iconic breakfast favorite.

The new product from **Bimbo Bakeries USA** has delicate, flaky layers of a croissant baked right into the loaf that is sliced for convenience. This makes it easier for consumers to toast and top with butter or other spreads. The suggested retail price is \$5.99 per 13.5-oz. loaf.

"What makes Thomas' Croissant Bread so uniquely good is that it's made in a croissant-style lamination process resulting in 72 layers in each loaf to get that signature flakiness you expect from a croissant," says Ted Swain, director of innovation.



## Pretzels Get Cheetos-Cheesy

From Cheetos Popcorn to Cheetos Mac 'N Cheese, Cheetos has been leaving its mark on the snack aisle with unexpected innovations. Now, Chester Cheetah is at it again with new **Cheetos Pretzels**. 63% of Cheetos consumers are also buying pretzels, according to data shared by the **Frito-Lay North America** division of **PepsiCo Inc.** and owner of the Cheetos brand.

The new snack has two distinct sides. One is covered in "Cheetle" (the term they coined for the orange dust) and the other is simply classic pretzel. There's a classic cheddar variety, as well as the brand's spicy Flamin' Hot recipe. Cheetos Pretzels come in a 10-oz. bag for \$5.69 and in a 3-oz bag for \$2.49.

"Our fans are always hungry for unique ways that they can experience Cheetos' signature cheesy flavor, which is why this latest innovation is breaking into an entirely new category," says Tina Mahal, senior vice president of marketing at Frito-Lay.



## At-Home Fast-Casual Dining

**TGI Fridays** expands its frozen food offerings with four new restaurant-inspired, single-serve meals making their debut at Walmart locations nationwide. The **Whiskey-Glazed Chicken** features flame-grilled, bone-

less, skinless chicken topped with a whiskey barbecue glaze and accompanied by buttery

mashed potatoes. That same glaze serves as the sauce

for the slow-cooked pulled pork in the **Whiskey-Glazed Pulled Pork Mac & Cheese**.

The **Spinach and Artichoke Chicken** is made with the chain's famous cheesy spinach and artichoke sauce. It gets paired with tender chicken, all served over long-grain rice. Last, the **Spicy Cajun Style Chicken Fettuccine Alfredo** is made with chunks of all-white-meat chicken. The meals are produced by **Golden West Food Group**, a company that partners with culinary brands to offer consumers a range of raw to fully cooked and fresh to frozen foods.

## Elevated Cowboy Cuisine

Fans of the Yellowstone TV series can now indulge in the flavors of the West, everything from hearty, ranch-inspired breakfasts to authentic, high-quality restaurant-style barbecue meats.

New products from the collaboration of **FoodStory Brands** and Paramount Consumer include Yellowstone branded smoked thick-cut bacon, breakfast sausage, smoked shredded brisket, smoked pulled pork and burnt ends. These products are all made in the U.S. with premium smoked pork and contain no artificial colors or flavors.

There's also new **Yellowstone Cheesy Bacon Mac**, a gourmet comfort food creation by **Zinetti Foods**, and two flavors of baked beans produced by Nashville-based **Vietti Foods Inc.**

Both the Yellowstone Baked Beans with Bacon and Yellowstone Beef and BBQ Baked Beans deliver a sweet and savory experience.

"From the start, we envisioned a holistic line of cowboy comfort foods that serve all eating occasions with elevated quality and authentic flavor profiles," says Jordan Jedeikin, senior vice president of business development at FoodStory Brands. "We are proud and honored to expand the partnership with Paramount to continue serving up genuine Yellowstone-inspired food for fans and families across the country."



## Authentic Indian Cooking Sauces

**Mars Food and Nutrition**, a segment of family-owned **Mars Inc.**, is growing **Tasty Bite**, the No. 1 ready-to-heat Indian food brand in the U.S. The brand shared data showing that one-third of Americans dine out at Indian restaurants, but only 6% eat Indian food at home. Tasty Bite plans to change that with five varieties of shelf-stable jarred simmer sauces.

Varieties are Butter Chicken (Punjabi-style slow-cooked tomato sauce with cashew and butter), Coconut Korma (Awadhi-style coconut sauce simmered with fragrant spices and cashew), South Indian Curry (Chennai-style sauce with coconut milk and peppery spices), Spicy Vindaloo (Goan-style tomato-based sauce with spices and aromatics) and Tikka Masala (Delhi-style tomato sauce with cream and toasted spices).

The vegan sauces were developed with chefs based in India and are designed to be customized with your choice of protein. A 13-oz. jar has a suggested retail price of \$5.99.

## Dill Pickles with a Frank's RedHot Kick

Vlasic, a brand of **Conagra Brands Inc.**, is partnering with **McCormick & Co.'s** Frank's RedHot for a new hot and spicy take on kosher dill pickles that combines Frank's cayenne pepper heat with Vlasic's garlic dill notes. **Vlasic Frank's RedHot Pickles** use Frank's RedHot Original Cayenne Pepper sauce in the brine. They come in three forms: a 16-oz. jar of whole pickles with a suggested retail price of \$3.79 and 24-oz. jars of pickle chips or pickle spears. All have a suggested retail price of \$3.49.

The timing for this dynamic duo comes at a time when both pickles and hot and spicy condiments are on the rise. Circana data shows that pickles are a \$1.6 billion dollar category, with sales up 8% over the past three years, while hot and spicy condiments have seen a similar trajectory, up 10% over the past three years.



# ROLLOUT TRENDS

## Eggnog-Flavored Cookies

**Pepperidge Farm** is giving the Chessmen cookie, its most popular variety, a holiday twist. New **Pepperidge Farm Holiday Nog Cookies** marry the buttery, creamy taste of the Chessmen cookie with the smooth, warm seasonal spices of eggnog flavor. Dressed for the occasion, the cookies are adorned with holiday shapes, such as pine trees, wreaths and candy canes.



## The Elf Is in the Freezer

From the North Pole to Kroger-owned stores nationwide comes **The Elf on the Shelf** ice cream products. The brand is owned by The Lumistella Co. and the ice cream is produced by **The Frozen Farmer**. There's Santa's Cookies Ice Cream in pints (vanilla ice cream loaded with red and green sugar cookie crumbles) and Santa's Cookies Ice Cream Sandwiches, which is red and green sugar cookie-flavored ice cream between sugar cookies.



## Festive Popcorn

**BjornQorn** is collaborating with **Ruby Hibiscus** to offer holiday shoppers a tangy and salty pink popcorn dusted with tart hibiscus powder and nutritional yeast. It comes wrapped in holiday packaging that makes an ideal stocking stuffer or hostess gift. The popcorn is available direct to consumers and in all Whole Foods Market locations in the Northeast region. A 3-oz. bag sells for \$5.29. They may be purchased online in quantities of six for \$36.



## FOCUS ON: HOLIDAY PRODUCTS

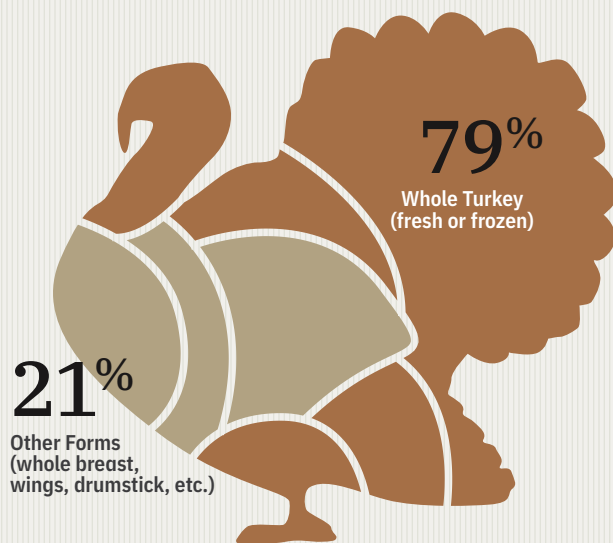
## Inflation's not Killing the Bird

It's holiday time, which means shoppers are often willing to dip deeper into their pockets to purchase holiday-themed foods and beverages. Someone has to volunteer hosting the feast, which can be costly, even more so during these inflationary times. That's not stopping family and friends from gathering.

Butterball partnered with Circana for an online survey among a nationally representative sample of 1,838 U.S. adults July 3-14. According to the findings, people are optimistic and planning to celebrate – with turkey as the centerpiece – again this year, but inflation is top of mind. 79% of consumers who plan to celebrate Thanksgiving expect inflation to impact their plans. However, hosts remain committed to talking turkey, with 82% still planning to serve it.

89% of respondents plan to host or attend a celebration of the same size or larger this year. The anticipated average size of celebrations is nine people, which is back to pre-pandemic numbers. To help control costs, 29% of hosts will ask guests to bring part of the meal, while 16% will ask guests to share the expense of the meal.

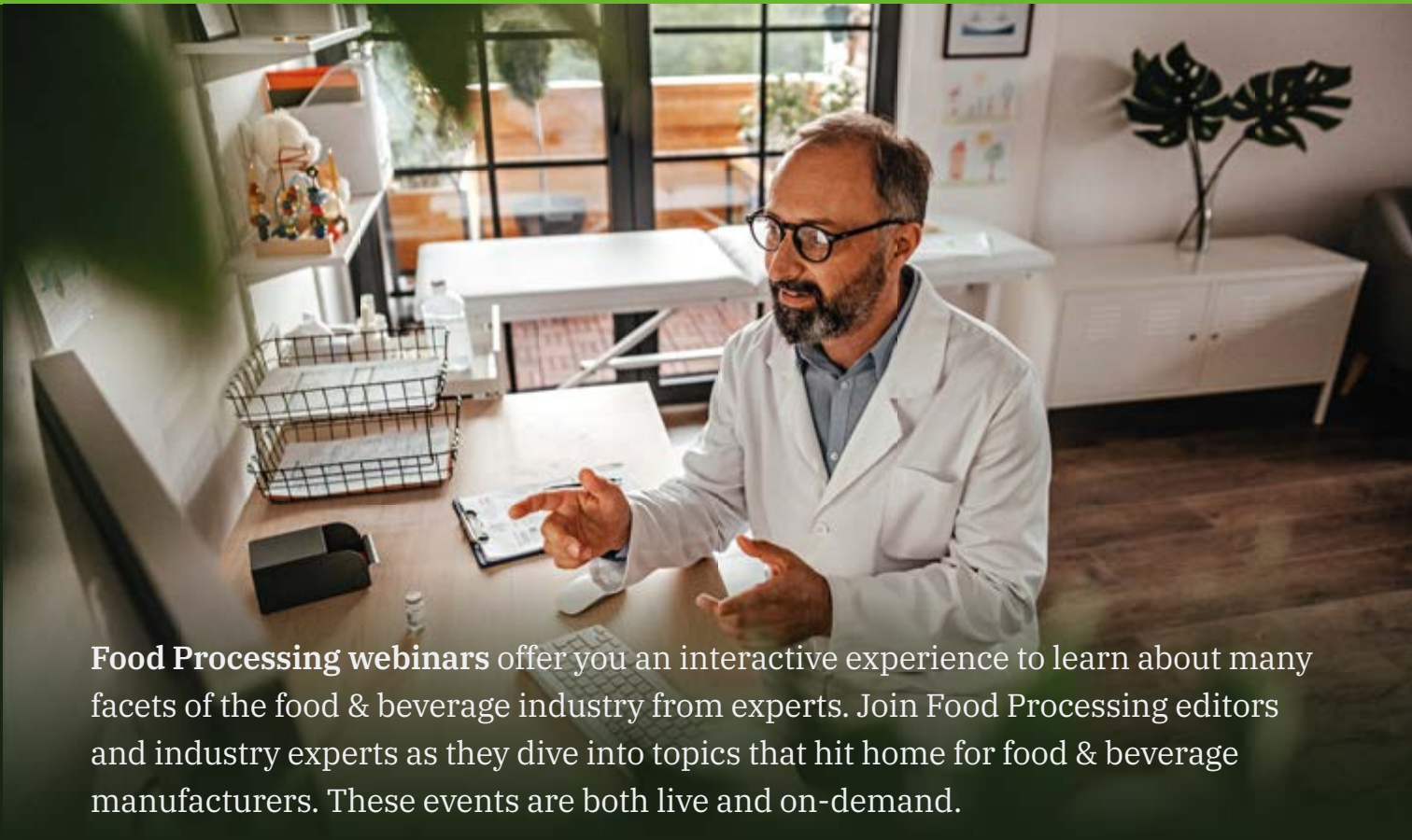
## HOW DO YOU SERVE THE THANKSGIVING TURKEY?



SOURCE: BUTTERBALL THANKSGIVING OUTLOOK REPORT 2023

# Stay on Top with **EDUCATIONAL WEBINARS**

What are current consumer trends? The new ingredient and equipment breakthroughs? What regulatory deadlines do I need to be aware of?



**Food Processing webinars** offer you an interactive experience to learn about many facets of the food & beverage industry from experts. Join Food Processing editors and industry experts as they dive into topics that hit home for food & beverage manufacturers. These events are both live and on-demand.

**Dec. 12:** The year's final webinar: Making Your Plant More Sustainable (with guest speakers from Hormel's Fontanini facility, our Green Plant of the Year)

Ready whenever you are: Catch up on these recent on-demand webinars:

**Utilize the Production Core Four:** ERP, OEE, EAM and PLM

**Delivering Dairy-Like Taste and Protein in Plant-Based Alternatives**

**What OSI Group and Schreiber Foods Learned From Their Cyberattacks**

Read more about them and register for any or all at:  
[www.foodprocessing.com/webinars](http://www.foodprocessing.com/webinars)

**FOOD PROCESSING**



# THE INCREDIBLE JOURNEY OF JBS USA

Written by  
**Dave Fusaro**  
EDITOR IN CHIEF

From a small Brazilian  
butcher shop to the  
biggest animal protein  
supplier in the world.

**I**t's been a remarkable and fast-paced journey for JBS USA. You might say the U.S. company went from zero to \$30 billion in just 16 years. It also might be said that, in the process, the U.S. operation catapulted its Brazilian parent from a South American, beef-only meat packer to the biggest animal protein processor in the world.

"The Swift acquisition in the U.S. fundamentally transformed the [JBS S.A.] company – there's no doubt about it," says Wesley Batista Filho, CEO of JBS USA CEO. "The 2007 acquisition of Swift & Co. was the most pivotal moment in our history. JBS went from a \$2 billion company to a \$10 billion company overnight."

JBS S.A., based in Sao Paulo, Brazil, is a US\$73 billion global company now. It claims to be the world's biggest processor of beef and also of poultry, No. 2 in pork. In this country, it's No. 1 in beef and No. 2 in pork and poultry.

JBS USA, based in Greeley, Colo., accounts for the biggest share of the parent firm's global sales: \$30 billion overall, including \$22 billion in beef and \$8 billion in pork. Add to that, through a dotted line, \$17.5 billion in poultry through its 80% ownership of Pilgrim's Pride and the U.S. accounts for more than half of JBS S.A.'s revenue.

But it consistently has accounted for an even greater share of the global corporation's profits. Last year, the earnings before taxes, etc., of those three JBS USA units (beef, pork and Pilgrim's Pride) were \$4.17 billion, nearly two-thirds of the global corporation's EBITDA – and that's down from an outstanding 2021 when the U.S. EBITDA was nearly \$6.7 billion.

While the purchase of once-mighty Swift & Co. was transformational and a huge building block, there has been a steady stream of acquisitions since: in the U.S., Smithfield's beef operations, Cargill's pork operations, Pilgrim's Pride, Empire Packing, Sunnyvalley, Plumrose and Gold'n'Plump. And many more elsewhere in the world.

Back in 2007, there was concern in some circles about a foreign company taking over a key U.S. food provider, especially one with the market share,

name recognition and the long history of Swift.

But in the years since, the new owners have proven to be great corporate citizens. "The first thing they did was take the Greeley (Colorado) meat plant from one shift to two, doubling employment," says Cameron Bruett, head of corporate affairs – who at the time was a senior staffer on the U.S. Senate Committee on Agriculture in Washington D.C.

JBS USA also does a great deal for its employees, the communities it operates in and the environment in general. Community college tuition is paid for all its employees across the country, as well as their children. JBS has partnered with state and local governments and non-governmental organizations to add nearly 1,500 new housing units in communities where the company has facilities. The company also has engaged with local childcare providers as well as Boys and Girls Clubs and YMCAs to expand their facilities to provide slots for JBS workers' families.

In the past few months, we've reported the tribulations of Tyson,

Smithfield, Perdue and other meat processors, with each of those companies closing plants and laying off people because of the current headwinds in the animal protein industry. JBS USA hasn't closed a plant or reduced its workforce in any material way.

JBS USA has a fascinating story and is truly worthy of being our 19th Processor of the Year. We're focusing on JBS USA, although in some of the following discussion it's difficult to separate the American organization from the global/Brazilian one.

### Humble beginnings

JBS, by the way, are the initials of the founder, Jose Batista Sobrinho, who operated a small butcher shop in Anapolis, Goiás, Brazil. His fortunes suddenly changed in 1957, when his little butcher shop got a contract to supply meat to workers building Brazil's new capital in nearby Brasilia. He purchased the company's first meat packing plant in 1970. In the decades following, JBS S.A. had become South America's biggest beef processor, but was looking to expand outside of Brazil, and to do so in a big way. The company already had grown significantly by acquisitions in South America and elsewhere in the world, including the operations of Swift & Co. in Argentina.



Wesley Batista

Swift, once the largest meat processor in the U.S., was experiencing difficulties in the U.S. Its ownership changed hands several times early in this millennium, including owners Beatrice Foods and Conagra, and ultimately it ended up being owned by private equity firm Hicks, Muse, Tate & Furst.

"Along comes this Brazilian upstart company that doesn't have specific experience in the U.S. market but certainly

understands the global beef business," says Bruett. "It didn't have a lot of exposure to pork, and certainly no direct operational experience in the United States or Australia. So it was a huge risk, and I think most in the [U.S.] industry had their doubts.

"But this was not a hedge fund or a venture capital organization," he continues. "[JBS S.A.] really believed in agriculture and the promise of the future. They were going to invest in those assets and make this once again a very productive business."

The time was right and so was the price. JBS S.A. paid \$1.5 billion in cash for Swift & Co. in mid-2007.

"We brought in a new management structure, but most of the other employees remained," says Bruett. "We're good at turnarounds. Our motto is to create value through disciplined acquisitions at the right price, not just to grow for the sake of growth.

"One of the things about JBS is, yes, we are big, we are global, one of the largest food companies in the world. But we really operate autonomously in the different regions. So Australia is run by Australians, Brazil by Brazilians, the U.S. is run by the U.S. There are some global synergies and collaboration, but in general, ownership is given to each region. We want them to be the best in their region, and we monitor the results and help when help is needed."

JBS proved adept at acquisitions, and it also had an appetite for U.S. assets. So Swift & Co. was just the first of many that would become JBS USA. In 2008, JBS acquired the U.S. beef operations of Smithfield. In 2009 it acquired a controlling interest in Pilgrim's Pride, an ownership stake that now is nearly 80%.

In 2012 it extended its reach into Canada after buying XL Food (although JBS Canada is run as a



JBS USA is huge in the grocery meat case but not in obvious ways. 1855 is the year Swift & Co. began, and it's one of the few brands JBS maintains, although the company is working on growing its brands and its value-added offerings.

# PROCESSOR OF THE YEAR

separate operation). A busy 2015 saw the Brazilian parent acquire Tyson chicken operations in Brazil and Mexico, as well as Cargill's pork business in the U.S.

## Beef at its core

Meat processing, particularly of beef, is JBS' heritage and biggest single category. Despite that market's headwinds and JBS' own explorations of other food categories, the company has no plans to abandon that category and believes there will always be a need for animal meat, especially to feed a growing population across the planet.

"We're working in the most important job of all, feeding and nourishing the world," says John Crowder, head of beef marketing and retail sales. "We're providing protein and nutrition. People are talking more and more about a movement back to fresh foods, foods that contain the essential vitamins and other vital nutrients with the lowest amount of calories possible. That's beef."

If animal protein is to remain a solution to feeding the world, a global company like JBS would be best positioned to deliver the benefits, efficiently, safely and in the needed volumes, around the world, Crowder says.

While pork and especially chicken products are heavily branded, less than 10% of JBS USA's beef is – although the company is working to heighten the recognition of the few brands of beef it has, says Crowder. "We have Holstein, Angus, other specialty beefs," he continues. "The Aspen Ridge brand is no antibiotics and is certified humanely raised. Grass Run Farms is grass-fed, 100% born, raised and harvested in the U.S. and also no antibiotics."

Grass Run Farms products are grass-fed, 100% born, raised and harvested in the U.S. and have no antibiotics.



While still heavily invested in primary processing of beef, pork, lamb and chicken, JBS USA and its parent are pursuing value-added products. It built an Italian meats and charcuterie plant in Columbia, Mo., and upgraded a plant in Moberly, Mo., for cooked bacon. Recent acquisitions include Sunnyvalley Smoked Meats in California, which makes smoked bacon, ham and turkey products, and the Empire Packing business, which produces case-ready, branded retail products.

"If you look at the size of JBS and look at prepared foods as a

segment, there's so much upside for us and so much excitement," adds Rick Foster, president of JBS Prepared Foods. "You can see that in our new Italian meats plant and our new bacon plant. Prepared foods is newer territory for JBS as a company, and it presents a lot of opportunities – in foodservice, retail, snack, convenience."

# ULINE

SHIPPING SUPPLY SPECIALISTS

## FOOD SERVICE ESSENTIALS



ORDER BY 6 PM FOR  
SAME DAY SHIPPING

SERVICE CARTS



INGREDIENT  
BINS



SCOOPS

COMPLETE CATALOG

1-800-295-5510 [uline.com](http://uline.com)



## Beyond beef

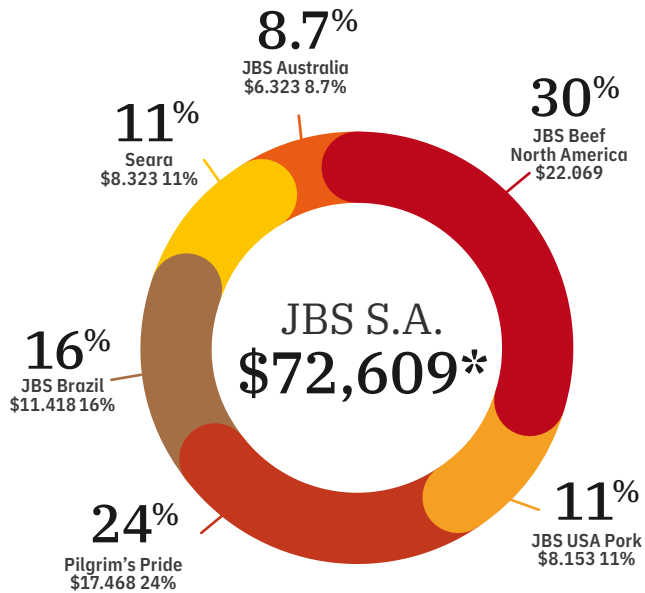
JBS S.A. has more than 400 business facilities around the world, 230 of which are directly related to the production of meat and value added and convenience products. With operations in 15 countries and more than 150,000 team members, it sells in 100 countries on six continents. The company has the capacity to process more than 75,000 heads of cattle per day, around 14 million birds per day and more than 115,000 hogs per day.

While JBS – both USA and S.A. – will keep meat processing at its core for the foreseeable future, both companies are pursuing other food categories, although apparently sticking with proteins.

JBS S.A. bought into Huon Aquaculture, an Australian company raising Atlantic salmon in the Pacific Ocean. Also of interest to the global parent, but no longer to the U.S. operation, is plant-based meat analogues. JBS S.A. continues to explore the category but JBS USA created a plant-based business, Planterra Foods, in 2020 but closed the operation at the end of 2022.

An interesting development, also on the global front, is the parent firm's growing interest in cultivated meats. JBS S.A. last year bought a 51% stake in BioTech Foods, a Spanish cultivated meat company, enabling the latter to build a production plant in San Sebastián, Spain. The \$40 million plant is expected to have an annual capacity of 1,000 tons when it begins operations in mid-2024.

This September, JBS S.A. began construction on a cultivated protein R&D center of its own in Florianópolis in Brazil's state of Santa Catarina. When it opens at the end of 2024, it will be the largest research facility



All figures in billions of U.S. dollars; we did the currency conversion from Brazilian reals.

\*INCLUDES SUBTRACTIONS

focused on food biotechnology in Brazil, the company says. JBS initially will invest \$22 million in the JBS Biotech Innovation Centre for the construction of lab facilities (phase 1) and a pilot plant (phase 2). It will have a scientific team of 25 specialist post-doctoral researchers, as well as staff and clerical support.

In total, the facility is budgeted for \$62 million over three phases. In the third stage, an industrial scale model will be built to demonstrate the technical and economic viability of cultivated protein, a model for future plants that JBS may build globally to produce beef and other cultivated protein types.

While those are global developments, cultured meats may one day become a part of the U.S. operation as the sector continues to grow and consumers demonstrate an increased appetite for traditional meat alternatives.

JBS S.A. already is a leader in animal proteins in North and South America and Australia, and through Pilgrim's Pride is the largest food company in the UK. But there are still growth opportunities in Europe, Asia and Africa. "We're always looking globally," says Bruett. Prepared foods is considered a key growth area. "Adding value is the name of the game. Ultimately, getting closer to the consumer presents an opportunity for value creation and margin growth, so we've made significant investments in bacon, hams, deli meats, case-ready, prepared foods and aquaculture across the global company."

What will JBS look like in the future? "I think in 20 years, JBS will still be a protein company at its heart. However, we think beyond protein— we are a global *food* company," says Nikki Richardson, head of corporate communications. "The company is focused on providing food options that its customers and consumers want.

"We are keenly aware of the fact that by 2050 we'll have a significantly greater global population to feed, so we're looking at all kinds of ways of doing that," she continues. "So I think we will continue to evolve, continue to diversify, and continue to provide a diversified portfolio of high-quality food across many categories." ■

# A Billion-Dollar Pledge to Become **Net Zero**

Written by

**Dave Fusaro**

EDITOR IN CHIEF

The global company wants to be a leader in environmental concerns and has the size and footprint to have an impact.

**P**

erhaps more than other animal protein companies, both JBS S.A. and JBS USA

appear to be committed to animal protein for the future. That makes them acutely aware of and focused on agribusiness' significant roles in addressing global warming and other environmental problems. As a result, JBS S.A. established a global aspiration in 2021 to achieve net-zero greenhouse gas (GHG) emissions in all its operations by 2040.

Other food & beverage companies have made sustainability pledges and goals, but JBS is engaging all its operating units across the globe and its entire supply chain: farmers/ranchers, suppliers, even retail customers.

The endeavor even ties environmental performance to executive compensation. It's an ambitious goal.

"We care about our role in the world and our responsibility as a global food company. That's why we are the first global meat and poultry company to pledge to achieve net-zero greenhouse gas emissions by 2040," says a company statement. "We believe that agriculture can and must be a part of the global climate solution."

If that sounds audacious, "We are confident we will make it," says Jason Weller, JBS S.A.'s global chief sustainability officer, who is in the Greeley, Colo., office. "We don't have a choice. We have a climate crisis. JBS is serious about the impacts of a changing climate on our global food system, and we believe that agriculture must be part of the solution.

"JBS is in a really key position [through its global footprint] where we can first take care of our business within JBS and reduce our environmental footprint broadly but also serve as a catalyst, an agent of change within the food system, where we can signal to our farmer suppliers and also partners downstream of the need to take action."

Weller's been on the job just a year, coming immediately from a similar position at Land O'Lakes and before that serving as chief of USDA's Natural Resources Conservation Service. His JBS position was created

add focused and global leadership and coordination between global priorities, like the net zero aim, and the efforts at JBS locations in the 20 countries where JBS operates.

“Sustainability” is a deceptively complex word. At its fullest, it requires not just a reduction in the negatives – such as greenhouse gases, water pollution, wasted energy, etc. – but doing so while sustaining the business: the processing plants with their thousands of jobs, the economic benefits to the local communities and the compa-

ny’s ability to feed the world.



Jason Weller

So Weller talks a lot about eliminating waste, in all its forms. Wasting less food and inputs, less energy, less water. Less waste automatically translates into more

food for a growing world. At the same time, it means lower costs to JBS and improvements in the environment.

JBS S.A. lists five initial steps to reach net zero:

1. Invest more than \$1 billion in upgrading facilities and equipment by 2030.
2. Invest \$100 million in research and development projects by 2030.
3. Reduce emissions intensity by 30% by 2030.
4. Use 100% renewable electricity by 2040.
5. Tie environmental performance to executive compensation to ensure accountability.

The corporate focus on net zero began in 2021. Starting that August, employees were asked to make proposals for their facilities. Since then,

Sustainable food transportation is part of the equation, so JBS is investigating hybrid or electric trucks, alternative energy sources like renewable fuels, route optimization software and other solutions.



more than 180 have been approved and budgeted for \$123 million. Projects range in type, scope and scale, but all are assessed based on their contribution to actual GHG reduction.

“Every project is judged off the same score sheet,” says Mark Ritsema, who is head of environmental sustainability at JBS USA, working with Weller. “We’re looking at the dollars that we’re spending per ton of greenhouse gas removed and what the payback to the business is.”

The Souderton, Pa., plant’s wastewater treatment system processes more than 1.5 million gallons per day before it is returned to a nearby creek. The bacterial treatment of the effluent requires a steady flow of oxygen, which had been supplied with a series of fans. But they can be costly to run and can’t be adjusted with rising and falling oxygen levels. So six existing fan blowers were replaced with a turbo blower that can modulate itself using oxygen sensors in the wastewater basins, saving energy when oxygen levels are too high for the bacteria and increasing the air supply when oxygen levels drop.

The turbo blower provides a 30% efficiency gain for the aeration system. Electricity use at the facility will be reduced by 900,000 kilowatt hours

per year, reducing greenhouse gases by 285 metric tons.

A project to generate heat and power from captured biogas will yield a 15% GHG reduction at the JBS beef plant in Plainwell, Mich., and will create further offsets by reducing the amount of natural gas and electricity the facility would otherwise buy.

At the Pilgrim’s Pride plant in Enterprise, Ala., an anaerobic lagoon, which treats wastewater from the plant, is being improved with a \$6 million investment that will cut GHG emissions by 40%. The six-acre pond is being completely overhauled, covered with a huge plastic sheet to create the anaerobic conditions the bacteria need and to capture the methane byproduct. The methane will be captured to offset GHGs by powering water heaters or electrical generators at the plant.

While a global JBS initiative, it’s at the facility level where change happens. “The fact is, our team members are actually the ones making the change,” Ritsema says.

JBS USA also has contributed more than \$1.2 million to climate change research projects in partnership with non-governmental organizations and universities. ■

PROCESSOR OF THE YEAR



# EVOLUTION BRINGS OPPORTUNITY

Written by  
**Andy Hanacek**

SENIOR EDITOR

JBS USA's investments in value-added, case-ready and prepared foods are critical building blocks for its future success.

**W**hen a company the size of JBS USA wins *Food Processing's* Processor of the Year, it can be a challenge to pinpoint exactly which initiatives drove the most success. To move the needle enough, accomplishments must impact at significant depth or with a wide breadth.

JBS USA has produced outcomes that would fit either category — and could be considered top-tier accomplishments for any company. Taken together, the picture becomes clear how JBS USA has motored ahead as some companies struggled.

Most people might still consider JBS USA more of a meatpacker and

commodity fresh/frozen protein processor. Yet, the company has embarked down the road into the prepared foods, value-added, case-ready, branded businesses in a big way, and those opportunities have factored nicely into the processor's recent success.

## Building its own opportunities

When it comes to opportunity, JBS USA saw prepared foods as ripe for picking, explains Rick Foster, president of JBS Prepared Foods. One particularly intriguing segment was Italian-style, cured meats, in which JBS had designs on producing everything from snacks to pizza toppings. Yet, with established, almost institutionalized, processors taking up the market, JBS USA wasn't interested in being just another standard option.

"Not many [processors] are looking to build a new Italian meats plant, as it's very capital intensive," Foster explains. "We took a different approach, from innovation, automation capabilities,

flexibility, food safety and all the things that add value, and we did it on a whole different level with a new facility, a greenfield project.”

JBS USA opened the \$200 million, 325,000-sq.-ft. Principe Foods facility in Columbia, Mo., in April. Principe is a decades-old Italian meats brand that JBS acquired and wanted to expand to the U.S., but simply didn’t have the capabilities to make the products in the states, Foster adds. The facility features a significant amount of automation to minimize the need for manual product transport and other less-than-desirable jobs, as well as a heavy emphasis on processing integration.

“Information can be captured and shared to help enhance the processes and allow for consistent manufacturing of finished goods,” Foster says. “It’s done in real time and allows for very quick interactions should adjustments need to be made.”

The Principe Foods plant wasn’t the only recent investment in the area, as JBS opened its precooked bacon plant in nearby Moberly, Mo., in 2021. Furthermore, Foster says the company plans to invest further in the Moberly plant to “grow it to be a premier bacon plant,” with processing capabilities to add to the slicing and cooking operations currently in place.

### Evolution of value-added

To grow its value-added offerings, the company also needed to evolve, says Eduardo Noronha, president of JBS Value Added.

“In a large production facility, we talk about the 60-lb. box; with this business, we talk about a 6-lb. box with a few trays inside,” he says. “We needed to take complexity from the big plants, let them work on their core competencies of large volumes and simple orders, and send value-added, case-ready from the big motherhips to a bunch of jet-skis to fulfill orders.”

So JBS USA’s large plants still create value-added, case-ready products, but they no longer ship those orders directly to customers. Instead, the plant receives one purchase order from one of the company’s smaller case-ready facilities (a full load of products might contain products for multiple customers), where the load is broken down into smaller orders that are shipped to the customers.

“Changing this was more about production and process planning with a different mindset than infrastructure,” Noronha explains. “It’s not rocket science, but it is much easier for the larger plants as we grow our value-added business now and in the future.”

The company adheres to this tactic for beef, pork and chicken

products destined for the Adaptable Meals and La Herencia brands, with chicken shipped in from outside JBS.

This tactic has already produced positive results: Noronha relays the story of a retailer looking for a way to draw more customers to its stores by offering a high-value, high-quality, value-added chicken product.

“The retailer had a strategy to offer \$10 family-size products and \$5 individual products, and they wanted us to help build it up,” he says. “So we looked at our Adaptable Meals chicken product and designed a two-piece, marinated chicken breast product that would hit that \$5 mark without jeopardizing product quality — and it has taken off.”

In just a couple weeks, Noronha adds, the small R&D team within the business unit had a solution, driven by the flexibility of the process and the tight focus of the team. He adds that JBS’ move to reacquire, renovate and dedicate the former Greeley, Colo., lamb-processing plant was a catalyst for this project.

It had been a legacy Swift plant, sold to Mountain States Rosen in early 2016. JBS repurchased the plant in 2020, removed all the lamb-processing equipment and renovated it to house three value-added, marinated processing lines and one line for producing grinds — with room for future expansion as needed, Noronha says.

From his perspective, Foster believes the company is committed to both divisions and that investment from the company will continue.

“We’re reinvesting into our plants, we have our greenfield facilities and we’re also looking at acquisitions if opportunities arise,” he concludes. “So, we’re hitting it from all the different angles to find opportunities to grow.” ■

JBS USA’s Adaptable Meals brand carries the banner for the company’s evolution beyond simply being a meatpacker and producer of commodity cuts of beef, pork and chicken.



Written by  
Ed Avis

CONTRIBUTING EDITOR

# Holiday LTOs: Balancing Demand and Production

Consumer interest soars during the holidays and disappears Jan. 2.

Malk Organics makes almond milk all year long, but its Holiday Nog requires organic maple syrup and organic nutmeg extract, ingredients that must be sourced in advance.



For the past four years, fans of La Brea Bakery ([www.labreabakery.com](http://www.labreabakery.com)) products have discovered Take & Bake Savory Holiday Rolls and Cranberry Walnut Loaf on retailers' shelves during the holiday months. These products, which are not made the rest of the year, capture sales from customers hungry for holiday tastes. "Consumers have come to know and love these two holiday LTOs [limited-time offers]," says Brie Buenning, La Brea Bakery's director of marketing. "We have looked at other flavors and seasonal trends, and these have been the ones that stuck. The stuffing in the Savory Holiday Rolls is really reminiscent of the holidays, and the Cranberry Walnut Loaf offers a flavor that meets consumers expectations during this season."

Getting those two holiday LTOs on store shelves in time and in the right quantity to meet shoppers' demands is not an easy task, but it's worth the effort. According to a study called the Numerator 2023 Holiday Preview, 78% of Americans plan to buy specific food items for Christmas, 51% for Hannukah and 76% for New Year's Eve.

Of course, La Brea Bakery has lots of company in the holiday LTO space. Retailers know consumers love the smells, tastes and sounds of the season, and they capitalize on that by providing plenty of shelf space for holiday products. Savvy food processors get their products onto those shelves by creating on-trend products and planning their production and delivery many months in advance, but all with the risk of overproduction in mind.

"Seasonal items lose relevance as the season moves on, making forecasting and sell-down pricing strategies extremely important," says Chelsey Capps, director of thought leadership at Daymon ([www.daymon.com](http://www.daymon.com)), a private brands consulting firm. "Too much product means heavy clearance with degradation of margin, while too little product means empty shelves and missed sales."

### The value of LTOs

Holiday-themed products tap into consumers' love of the season, but LTOs in general are an effective way for food processors to attract attention, Capps says.

A study by the company revealed that 85% of consumers seek out food items with new flavors, and 64% of them are willing to pay at least slightly more for unique flavors.

"Flavor innovation has become incredibly instrumental to seasonal assortments," Capps says. "Over one-third of total shoppers say they like to try new flavors often, saying 'the wilder, the better,' with bold flavor innovation especially important to the younger Gen Z and Millennial shopper groups."

A special Christmas tea will become less special after the holidays.



There will be plenty of elves on shelves between now and Christmas, but after Jan. 1 those elves and any products tied to them should disappear.

What separates holiday LTOs from those that appear at other times of the year is that the competition for attention on a holiday LTO is greater, since so many companies create products for the season. And the immovable end point to the season – few consumers are buying candy canes after Jan. 1 – differs from that of LTOs that are not tied to specific holidays or seasons.

For example, Kellogg's has a broad range of LTOs on the market currently, including Little Debbie Oatmeal Crème Pies Cereal and Frosted Chocolatey Pop-Tarts Bites, that retailers could easily keep on the shelves until they sell out, regardless of the official end date of the LTO.

### Retailers plan them too

Retailers with strong store brands also capitalize on the holiday LTO market. Publix, for example, launched nine ice cream flavors in September geared toward the holidays, including Marshmallow, Candy Cane & Cookie Blast; Eggnog; and Pumpkin Pie. And shoppers at Kroger can now find Kroger Pumpkin Spice Coffee Creamer and Kroger Holiday Edition Sugar Cookies on the shelves.

## PRODUCT DEVELOPMENT

“While all brands can capture seasonal spending, retailers with strong private brands and a focus on driving competitive newness for consumers can capitalize on exclusive engagement, and in turn, increase store loyalty using seasonal programs,” Capps says.

“A recent Daymon proprietary study found that more than three out of four shoppers have a positive perception of private brands that launch new flavors and limited-time offerings, with these respondents saying new flavors are exciting, contribute to their enjoyment of the in-store experience and even keep them coming back.”

Some retailers maximize the holiday sales experience – for both store brands and CPG brands – by creating special holiday-themed sections of the store. This may help the stores avoid cannibalization of non-holiday products, Capps notes.

“Many retailers thoughtfully carve out a specific seasonal footprint within their stores to market holiday products, whether that be an endcap or an entire section merging a variety of holiday categories, as a defined home for seasonal products to live season after season,” she says.

### Planning way ahead

Whether it’s a store brand or a CPG company brand, success with holiday products depends on long-range planning. Because of ingredient requirements, special packaging needs and logistics concerns, planning for holiday LTOs often begins a year or more before a given holiday season.

For example, the planners at La Brea Bakery need to have commitments for orders in hand in time to acquire the necessary ingredients



Fans eagerly await the appearance of La Brea Bakery’s Cranberry Walnut Loaf (above) and Take & Bake Savory Holiday Rolls on retailers’ shelves during the holiday months.

– such as cranberries, walnuts, sage and thyme – at reasonable prices to produce and deliver the baked goods efficiently.

“We work with our teams to pre-sell our items and get customer commitments way before the season starts so we can plan from ingredient procurement and production perspectives,” Buenning says. “The ingredients in our Cranberry Walnut Loaf and Savory Holiday Rolls are not extremely unique, but because of seasonality, they tend to be more expensive and more in demand, so they could be out of stock.

“Planning way ahead reduces our risk and our costs. With everyday items, there’s constant production as needed. But with an LTO we have to plan six to eight months before.”

It’s a similar situation at Malk Organics ([malkorganics.com](http://malkorganics.com)), which introduced a Holiday Nog version of its organic plant-based milk this year. In addition to organic almonds and water, the Holiday Nog includes

organic maple syrup and organic nutmeg extract, ingredients that must be sourced well in advance of production time.

“The selling timeframe for seasonals tends to be months, if not approaching a year, in advance to ensure there is a clear projection on how much distributors and retailers will commit to it,” says Malk CEO Jason Bronstad. “Retailers have specific windows in which they bring in seasonals, and aligning to the availability they expect is critical in the demand planning process to meet or exceed our retailer partners’ expectations.”

Getting orders way in advance is obviously the ideal way to determine ingredient needs and plan production, but that’s not always feasible. Furthermore, having some product on hand beyond pre-orders could lead to more sales during the season. No one wants to get an order that can’t be filled.



Thus, many food processors do more than take early orders – they analyze previous years’ sales, study trend reports and do a competitive audit to help determine how much of a holiday LTO they should plan on producing, Capps says. Doing all that helps them define their strategy across the “four Ps”: product, price, promotion and placement, she explains.

“Best-in-class retailers and manufacturers plan their seasonal assortments nine to 18 months ahead of the targeted season,” she notes.

### Nobody wants leftovers

When Jan. 2 rolls around, holiday products suddenly lose their appeal for most consumers. That’s when food manufacturers learn how successful their planning was.

“It’s really hard when you have a product that you need to predict volume on six to eight months out,” Buenning says. “Some customers want to plan a year out, but others want to wait to make a commitment

until just a couple of months out. But from our vantage point, the pre-planning and pre-commitments protect us and reduce cost. We don’t produce more than we have allocated.”

Ultimately, every manufacturer making holiday LTOs seeks the perfect balance between demand and production quantity.

“Limited time offerings tend to generate excitement, and balancing the enthusiasm that our consumers and retailers have for a product is critical in the production forecasting,” Bronstad says. “Our goal is to meet the needs of our retailers, satisfy the demands of our consumers, and aim to have all of the bottles in people’s homes for their enjoyment prior to the turn of the calendar year.” ■

## Achieve **Greater Control** Over Production and Processing Time.

with Direct Steam Injection Heating System by **Hydro-Thermal**



**Save Energy and Money:**  
100% energy efficiency with quicker startups and more production run time.



**Improve Product Quality:**  
Consistent production with precise process control.



**Simplify Your Equipment:**  
Installed directly into existing system piping with minimal maintenance requirements.



Learn more at [www.hydro-thermal.com](http://www.hydro-thermal.com)  
or call 1-800-952-0121

**hydro**  
**THERMAL**

# INGREDIENTS



## Keep nutrition bars soft

PROtelyze Extend is a high-quality hydrolyzed whey protein isolate (WPI) intended for nutrition bars. It boosts protein content while ensuring a desirable texture throughout shelf life. Many protein bars harden on the shelf because proteins pick up moisture over time. This product provides a boost in protein content and keeps the bar soft for a longer period of time. And the bland flavor does not affect the bar's sensory attributes. Formulators may be able to use less PROtelyze Extend combined with a less expensive WPI to achieve the same results with lower costs.

**Hilmar Ingredients; Hilmar, Calif.**

209-667-6076; [www.hilmar.com/proteins](http://www.hilmar.com/proteins)

## Cherry extract for sport recovery

CherryCraft is a line of tart cherry extracts crafted to offer a range of standardized polyphenol levels, offering food and beverage processors customizable formulas to harness the health benefits associated with cherry polyphenols. Tart cherry polyphenols provide support in sports recovery. Unlike simple cherry powders, which may vary in polyphenol content from batch to batch, CherryCraft is produced using a membrane extraction process that ensures consistency and potency. These extracts can deliver guaranteed polyphenol levels from 1% to 14%.

**Artemis International; Fort Wayne, Ind.**

[www.cherrycraft.info](http://www.cherrycraft.info)

## Tapioca syrup replaces sugar

Tapioca Syrup RS18 is a clear, mildly viscous syrup produced from tapioca starch using non-GMO enzymes. It has a sweetness similar to the supplier's tapioca syrup DE40, but with 38% less sugar. Tapioca Syrup RS18 also has exceptional film-forming and binding properties typically found in lower dextrose-equivalent syrups, making it an effective single syrup solution in bars, confections, and gummy supplements. Samples are available.

**Ciranda Inc.**

888-329-3577; [www.ciranda.com](http://www.ciranda.com)



## Beta-glucans for heart health

Orafti  $\beta$ -Fit, a natural and clean label, whole-grain barley flour with 20% beta-glucans, offers positive impacts on heart health and blood sugar management. Produced in the U.S. with the use of the entire kernel, there is no waste in production and a 100% valorization of raw material, with no water resources needed. It offers additional value for manufacturers and consumers alike and can be used in a wide range of applications including baked goods, pasta, cereals and meal replacements. It can also positively impact texture by increasing viscosity, such as in dairy alternatives.

**Beneo; Parsippany, N.J.**

973-867-2140; [www.beneo.com](http://www.beneo.com)



## Next generation potato protein

PerfectaSOL potato protein products have the ability to create consumer products with exceptional taste and texture that go beyond replicating existing animal-based products. This protein opens up possibilities for creating stand-alone plant-based consumer products that have the potential to extend beyond vegans and vegetarians by delivering unique and enticing plant-based experiences.

**Avebe; East Brunswick, N.J.**

609-865-8981; [www.avebe.com](http://www.avebe.com)

## Clean, natural sweetener

SteviaSweet RM95 is a 95% rebaudioside M stevia with a clean flavor profile that is free of the bitter notes often associated with other forms of stevia. It's a stevia extract powder with a minimum 95% concentration of reb M, one of many steviol glycosides. A high-intensity, zero-calorie natural sweetener, it provides a neutral, sweet taste without the use of flavor maskers. It works well with other high-intensity sweeteners as a sweetness or flavor modulator while also offsetting the cost in use, as less is needed to achieve the same level of sweetness. The result is a flavor similar to sugar. It is suitable for a variety of applications.

**Icon Foods; Portland, Ore.**

310-455-9876; [www.iconfoods.com](http://www.iconfoods.com)

Written by  
Andy Hanacek

SENIOR EDITOR

# Sensing A PROBLEM

Instrumentation monitors the process and the equipment, and the data revolution is increasing the amount of valuable information that can be gleaned.

**T**o maintain good health, a human being could eat well and exercise, then hope for smooth sailing. However, without the proper monitoring using the right tools to measure key health indicators, how would anyone know they were achieving good health (beyond simply feeling good)?

In many ways, food & beverage plants are similar: install equipment, streamline process flow, institute operational strategies aimed at efficiency. But without precise instrumentation and tools to monitor processes and equipment, there would be no telling how well products were being formulated, how safety was being maintained through the process, nor how truly efficient any machine was performing or when it might break down.

Instrumentation across industry monitors a wide variety of indicators, from temperatures to pressures, flow rates to fill levels, and even wear and tear on equipment and replaceable parts. In any industry, downtime is the enemy of efficient processing plants, and without proper instrumentation, plants have few opportunities to avoid unplanned downtime.

Of the 3,215 plant maintenance leaders surveyed in “Value of Reliability: ABB Survey Report 2023,” 69% reported unplanned outages at least once a month — with 8% experiencing downtime every day. Food & beverage plants made up 12% of those surveyed (the third-largest industry represented), but

ABB calculated that outages cost food & beverage processors more than \$84,680 per hour.

The report pointed a finger at many companies’ “run-to-fail” approach to maintenance, a reactive strategy that addresses issues only when equipment malfunctions or breaks down. Instituting a more proactive, predictive strategy is where proper instrumentation comes into play.

Finely tuned instrumentation represents the glue that keeps the operational puzzle together. And as the pieces have become more complex, the monitoring equipment has had to increase its own sophistication and versatility to keep up.

Furthermore, as artificial intelligence rides the wave into the food &

beverage processing space, advanced process instrumentation can flood AI modules with high-value, high-quality performance data to make condition monitoring of equipment and systems even more accurate.

## Data-driven revolution

The data revolution has made instrumentation that much more important, says Sarrina Crowley, marketing communications manager for Mettler-Toledo Product Inspection ([www.mt.com/pi](http://www.mt.com/pi)).

“Automated collection and reporting of digital documentation helps maximize product quality and prove due diligence with minimal manual labor,” Crowley explains. “Advanced data management and monitoring software enables processors to monitor their inspection equipment remotely and easily collect, save, search and share data. This helps to protect food safety, comply with regulatory requirements and improve process efficiencies.”

Melissa Stiegler, director of food & beverage for Emerson-Measurement Solutions ([www.emerson.com/en-us](http://www.emerson.com/en-us)), sees data analytics driving requests for various monitors, as customers look for data that can help them make decisions and ultimately protect their equipment. She uses wear and tear on pumps as a primary example of an area of focus for processors.

“Being able to detect changes in process variables and equipment conditions is a great way to know the status of the pump and avoid pump damage,” she says. Emerson has a product, for example, that mounts directly on the pump and detects its vibration, then sends the data to be analyzed to determine the state of the pump.

“The customer can then prioritize their maintenance based on which pumps are more critical and closer to needing maintenance,” she adds. Similar approaches to condition monitoring can be taken for all sorts of equipment in a plant.

In an October 2023 article in *Plant Services*, a sister publication to *Food Processing*, Dave Lincoln, a digital leader for ABB Measurement and Analytics ([global.abb/](http://global.abb/)), explained how process instrumentation typically is already gathering and transmitting data for process control purposes, and additional instrumentation can be used to track other parameters for condition monitoring.



Endress+Hauser's Teqwave H ultrasonic meter provides realtime, inline concentration measurement of things like sugar content in fruit juices and distilled beverages, concentration of cleaning agents, and more.

“Vibration and temperature are among the most common, since they can be measured non-invasively and can point to a multitude of potential maintenance issues, such as bearing wear in rotating machinery,” he said in the article. “Motor current signature analysis is another common approach, since a motor being used to drive worn or failing equipment will often draw power differently.”

### Making monitoring easier

As if technology wasn't making the actual equipment more technically challenging to maintain, troubleshoot and repair for the average food & beverage maintenance worker, innovations in data and instrumentation have raised the complexity for many. Crowley points to product inspection as an example where the stakes continue to rise for processing plants.

“Inspection systems that are simple to use make training of new operators much faster,” she says. “Also, the need for human intervention has been reduced with automations including fast product setup, testing, validation and data collection capabilities.”

Speed is of the essence no matter the product, and monitors must keep up just as well as the equipment on the line, or else errors can occur — leading to more unplanned downtime.

“Inspection systems must be accurate at high speeds, and operators must have confidence that systems are functioning at their best,” Crowley says. “A new innovation in Mettler-Toledo gravity fall and throat metal detectors is the Automatic Test System which enables routine performance monitoring testing to be conducted in under 90 seconds, maximizing line uptime.”



Temperature measurement is a key indicator that a process is in control.

PHOTO: TEL-TRU

Stiegler says helping end users access data more easily has been the focus of innovation as well, and relays that Emerson has worked to help processors use density and temperature to assess the concentration of a solution.

“This makes sure that they are using the right amount of concentrates in their production — not too much, and not too little,” she explains. “It ensures that they maintain the quality of their process, and having a product to help them do that makes it much simpler.”

In addition, Stiegler says smart meter verification can provide in-process measurement of flow meter health, which allows for confidence in measurements obtained.

Making products more intuitive and easier for plant floor workers to use can help processors with the turnover problems plaguing them today. Instrumentation on the plant floor may be able to run and collect data, but someone needs to ensure that data is collected and analyzed properly — and actionable decisions are made if an issue arises. ■



Advanced data management software and instrumentation can help processors monitor their operations remotely.

PHOTO: METTLER-TOLEDO PRODUCT INSPECTION

# Cargill Upcycles Hershey's Chocolate Waste Into **Animal Feed**

In a win-win for both companies, Hershey reduces its landfill waste and Cargill gets a quality feed ingredient.

**T**hink of it as Kisses for cows.

Hershey Co.'s search for a use for chocolate manufacturing waste and Cargill Inc.'s ongoing pursuit of nutritious animal feed came together in a nice win-win for both companies, for both sustainability and economics.

Since the early 2000s, Hershey had been selling small quantities of the waste and byproduct from its plants on the open market after processing it themselves, mostly for animal feed. Cargill was one of those customers. But in 2011, Hershey told Cargill it wanted to exit that business; would the agribusiness giant like to take all of the chocolatier's waste and turn it into animal feed?

Coincidentally, Cargill was in the process of rebuilding an animal feed manufacturing facility not far away in Chambersburg, Pa., that had been destroyed by fire. That plant already had experience taking "candy meal," as it's called, and combining it with other ingredients to make feed.



"I was buying candy meal for some of our plants at the time and knew the value of it," says Darryl Reiner, senior merchant at Cargill. "So, when Hershey asked us to take over their candy meal production, we knew it was a safe bet. Once we got ahold of it, we could tweak and make it even better."

Cargill's Chambersburg plant receives pallets from various Hershey facilities. In those boxes are things like chocolate and licorice bits — as well as wrappers that Cargill employees need to separate. The edible portions are dried naturally, then shred and ground into smaller particles, which are mixed with the dry feed ingredients.

"Before we finish, we do all the things we would normally do to process a product: fine-tuning the nutritional value of the candy meal and quality control," says Reiner.

Sugar is an important energy source for cows because of how concentrated and rapidly digestible it is, compared to other calorie sources. But sugar is expensive. Prices in the U.S. recently reached a six-year

The finished product, called "candy meal," is made up of Hershey waste and dry feed ingredients.

PHOTO: CARGILL



high. Candy meal is a fine substitute for sugar in cow feed because it, too, is concentrated and highly digestible. So, creating a product that has high sugar content, as well as fat and protein, is a winning combination, according to Reiner.

"Candy is an ideal substitute for sugar," he explains. "Our software plugs in all the specs and it gives back a diet replacing sugar with this byproduct."

The result is a nutritious food for cows, swine and other types of livestock. About 95% of the Cargill plant's output ultimately goes to dairy cows in the Northeast.

"Our team turns tens of thousands of pounds of Hershey's chocolate waste per year into feed ingredients for cows, pigs and other species of livestock," Reiner says. "It's a win-win for everyone — Hershey, the environment, our customers and Cargill."

Livestock are nourished. Food waste is upcycled and diverted from a landfill. Reiner also notes the corrugated shipping containers are recycled, and the wrappers and excess are shipped to an incinerator to be turned into energy.

A win-win, yes, but creating such a process requires a commitment to sustainability and the assumption of certain costs. Cargill committed a plant to the effort. Hershey requires its employees to separate product, "instructing and giving knowledge to employees that there is value in waste," notes Reiner. But now it's created one more step in each company's sustainability journey. ■

## Take Our Annual Manufacturing Outlook Survey

### Food Processing could use your help.

Lend your insights to our very brief annual Manufacturing Outlook Survey so we can provide a comprehensive look at manufacturing-oriented sentiment for next year.

Do you anticipate your production to be up or down? Hiring or laying people off? And generally, how good do you feel going into 2024? Take 5 minutes to fill it out and we'll enter you in a drawing for one of four \$50 Amazon gift cards. The story will be in our January issue and online.

Take the survey at  
[www.research.net/r/Y77VFNH](http://www.research.net/r/Y77VFNH)

FOOD PROCESSING



# EQUIPMENT



## New optical sorters

Compass optical sorter achieves consistently accurate foreign material and product defect removal while simplifying system operation, sanitation and maintenance. Designed for ease of use, this sorter helps processors automate and improve quality management of their food products while maximizing yield and increasing profitability. Its highly intuitive user interface enables operators without any technical background to quickly become proficient in using the sorter with efficiency and consistency while the data analytics and reporting software give food processors valuable insights into operation of the line.

**Key Technologies; Walla Walla, Wash.**

509-540-7415; [www.key.net](http://www.key.net)

## Differential scanning calorimeter

The DSC 5 is the first differential scanning calorimeter (DSC) capable of allowing users to optimize measurement conditions by carrying out DSC measurements in either power compensation mode or heat flux mode. The three-axis sample robot enhances productivity, efficiency and reproducibility. Users can store up to 96 sample crucibles

and seven reference crucibles while protecting samples from any environmental influences, and two sample tray options make operation around the clock possible. This is a suitable choice for all laboratories, from industrial development and academic research to production and quality assurance.

**Mettler Toledo; Columbus, Ohio**

800-638-8537; [www.mt.com](http://www.mt.com)

## Compact transport solution

VarioFlow plus chain conveyor system, an integrated, compact transport solution for both vertical and horizontal product transport and buffer storage, can be adapted to a wide variety of applications and is adjustable during production. The system also transports different types of packaging in all stages, while navigating in tight spaces with minimal friction, safely, quickly and without disruption. The comprehensive product range includes versions made of aluminum and stainless steel, as well as FDA-compliant materials. Users can commission and maintain it efficiently and economically.

**Bosch Rexroth; Charlotte, N.C.**

800-739-7684; [www.boschrexroth-us.com](http://www.boschrexroth-us.com)

## Swing-away magnet grate

RapidClean swing-away style magnet grate improves access to magnet rods, minimizes spillage and offers dust tight protection of product. Designed for applications with low headroom, it features ultra high energy magnets that provide superior separation efficiency for ferrous and weakly charged metal fragments less than 3mm, hygienic ledge-free interior housing and quick-release magnet design for easy extraction. It complies with current HACCP and

food safety standards. Single and double row units are available.

**Powder Process-Solutions; Chanhassen, Minn.**

877-933-2556; [www.powder-solutions.com](http://www.powder-solutions.com)



## Solid or liquid level measures

The BMRX-100 rotary level indicator is an electromechanical device used in solids and powders to prevent bin overfills, dry runs or to shut off a process. Without a printed circuit board, it is impervious to moisture and vibration found in many tough processing environments. It prevents waste and saves time when handling bulk materials stored in bins and silos and is adaptable to light, medium or heavy materials.

**BinMaster; Lincoln, Neb.**

404-434-9102; [www.binmaster.com](http://www.binmaster.com)

## X-ray inspection system

Dypipe X-ray inspection system reliably detects foreign bodies and ejects defective or contaminated products, guaranteeing an extremely high level of safety for viscous and liquid products. Equipped with an innovative test piece insertion system that enables verification in live operation, users maintain efficiency when the line is in production.

**Minebea Intec; Hamburg, Germany**

+49-40-67960-158; [www.minebea-intec.com](http://www.minebea-intec.com)

# CLASSIFIEDS

## HEAT EXCHANGERS



◀ *Liquid Cooled*



*Air Cooled* ▶

**FOR GASES & LIQUIDS!**

*Talk Directly with Design Engineers!*  
Blower Cooling    Vent Condensing

### INDUSTRIAL HEAT EXCHANGERS

# XCHANGER

(952) 933-2559    [info@xchanger.com](mailto:info@xchanger.com)

## HIGH SHEAR MIXERS

**World's Widest Selection,  
Single Stage to Ultra-High Shear!**



Scan to learn more.  
Try our mobile app:  
[mixers.com/web-app](http://mixers.com/web-app)

**1-800-243-ROSS**  
[www.HighShearMixers.com](http://www.HighShearMixers.com)





**STAINLESS STEEL  
MIST ELIMINATORS**  
For Food Processing Lines  
[www.mistcollectors.com](http://www.mistcollectors.com)  
Tel: 1-800-645-4174

### Advertiser Index

COMPANY	PAGE
CINTAS	2
EXTRUTECH PLASTICS	13
HYDRO-THERMAL	34
LUBRIPLATE LUBRICANTS	3
NELSON-JAMESON	14
POWDER PROCESS SOLUTIONS/PPS	15
ULINE	25
US POULTRY AND EGG ASSOCIATION	6
VAN DER GRAAF	44
VEGA AMERICAS	4

#### U.S. SALES TEAM

GROUP PUBLISHER

**Keith Larson**

(630) 625-1129, [klarson@endeavorb2b.com](mailto:klarson@endeavorb2b.com)

REGIONAL SALES MANAGER

**Betsy Norberg**

(913) 956-1670, [bnorberg@endeavorb2b.com](mailto:bnorberg@endeavorb2b.com)

AL, AR, CA, CT, DC, DE, FL, GA, ID, IL IN, KS, MA, MD, MN, MO, MT, NC, ND, NE, NH, NJ, NY, OR, RI, SC, SD, VA, VT, WA, WI

REGIONAL SALES MANAGER

**Michael Connaughton**

(513) 543-6432,

[mconnaughton@endeavorb2b.com](mailto:mconnaughton@endeavorb2b.com)

AZ, CO, IA, ID, KY, LA, ME, MI, MS, MT, NM, NV, OH, OK, PA, TN, TX, UT, WV, WY, Canada & International

U.S. ADDRESS

1501 E. Woodfield Rd, Suite 400-N,  
Schaumburg, IL 60173

#### OVERSEAS SALES TEAM

TAIWAN

**Sydney Lai**

886-4-2329-7318, Fax: 886-4-2310-7167,

[sydneylai@ringier.com.hk](mailto:sydneylai@ringier.com.hk)

Ringier Trade Publishing Ltd.

9F-2, No.200

Zhongming Rd., North District, Taichung  
City 404, Taiwan

CHINA

**Craig Shibinsky**

86-21-6289-5533 x368, Fax: 86-21-6247-4855,

[craig@ringier.com.hk](mailto:craig@ringier.com.hk)

Ringier Trade Publishing Ltd.

1001 Tower 3, Donghai Plaza

1486 Nanjing Rd. West, Shanghai

200040 China

Food Processing © (USPS 203-820, ISSN 0015-6523), is a registered trademark. Food Processing is published 10x annually with a combined Jun/Jul and Nov/Dec issue by Endeavor Business Media, 123 Janesville Ave., Fort Atkinson, WI 53538. Periodical postage paid at Fort Atkinson, WI and additional mailing offices. Subscription rates per year: U.S. \$100.00; Canada and other international: \$290.00 (payable in USA funds). Single copies are \$15.00. All rights reserved. Reproduction in whole or in part without permission is prohibited. We make portions of our subscriber list available to carefully screened companies that offer products and services that may be important to your work. If you do not want to receive those offers and/or information via direct mail, please let us know by contacting us at List Services Food Processing, Endeavor Business Media, 123 Janesville Ave., Fort Atkinson, WI 53538. Printed in the USA.

POSTMASTER: send address changes to Food Processing, PO Box 3257, Northbrook, IL 60065-3257.

**SUBSCRIPTIONS:** Qualified reader subscriptions are accepted from key people with managerial responsibilities for processing activities in the food industries at no charge. **To change or cancel a subscription, email [foodprocessing@omeda.com](mailto:foodprocessing@omeda.com).** Subscription rate for non-qualified U.S. subscribers is \$100/yr. Single copy rate is \$15.00. International rate is \$290/year Airmail only. Copyright ©2014 by Endeavor Business Media. All rights reserved. The contents of this publication not be reproduced in whole or in part without consent of the copyright owner.

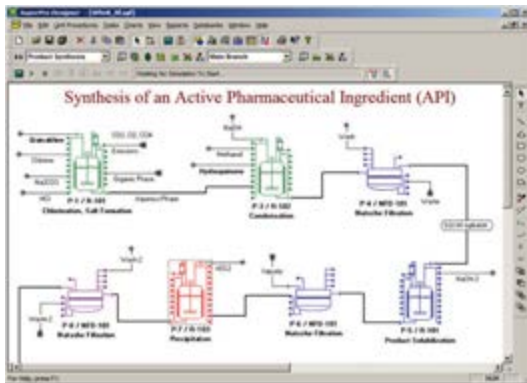
Reprints are available on a custom basis from Mossberg & Co. Reprints; 800-428-3340; [reprints@mossbergco.com](mailto:reprints@mossbergco.com).



# Intelligen Suite®

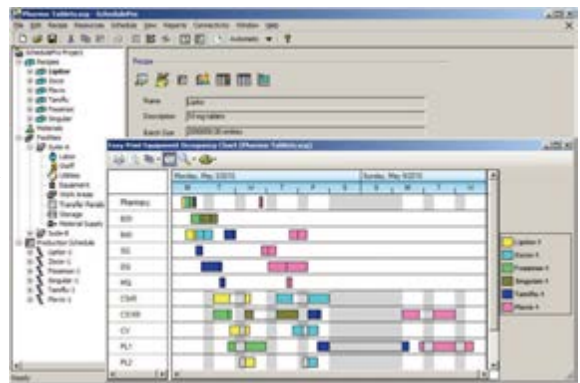
The Market-Leading Engineering Suite for Modeling, Evaluation, Scheduling, and Debottlenecking of Multi-Product Facilities

## SuperPro®

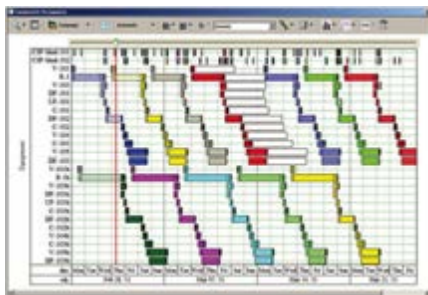
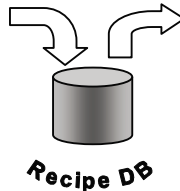


Use SuperPro Designer to model, evaluate, and optimize batch and continuous processes

## SchedulePro®



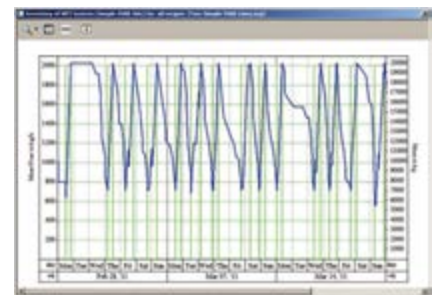
Migrate to SchedulePro to model, schedule, and debottleneck multi-product facilities



Easy production tracking, conflict resolution and rescheduling



Tracking demand for resources (e.g., labor, materials, utilities, etc.)



Managing inventories for input, intermediate, and output materials

**SuperPro Designer** is a comprehensive process simulator that facilitates modeling, cost analysis, debottlenecking, cycle time reduction, and environmental impact assessment of integrated biochemical, bio-fuel, fine chemical, pharmaceutical (bulk & fine), food, consumer product, mineral processing, water purification, wastewater treatment, and related processes. Its development was initiated at the Massachusetts Institute of Technology (MIT). SuperPro is already in use at more than 500 companies and 900 universities around the globe (including 18 of the top 20 pharmaceutical companies and 9 of the top 10 biopharmaceutical companies).

**SchedulePro** is a versatile production planning, scheduling, and resource management tool. It generates feasible production schedules for multi-product facilities that do not violate constraints related to the limited availability of equipment, labor, utilities, and inventories of materials. It can be used in conjunction with SuperPro (by importing its recipes) or independently (by creating recipes directly in SchedulePro). Any industry that manufactures multiple products by sharing production lines and resources can benefit from the use of SchedulePro. Engineering companies use it as a modeling tool to size shared utilities, determine equipment requirements, reduce cycle times, and debottleneck facilities.

*Visit our website to download detailed product literature and functional evaluation versions of our tools*

**INTELLIGEN, INC. • 2326 Morse Avenue • Scotch Plains, NJ 07076 • USA**

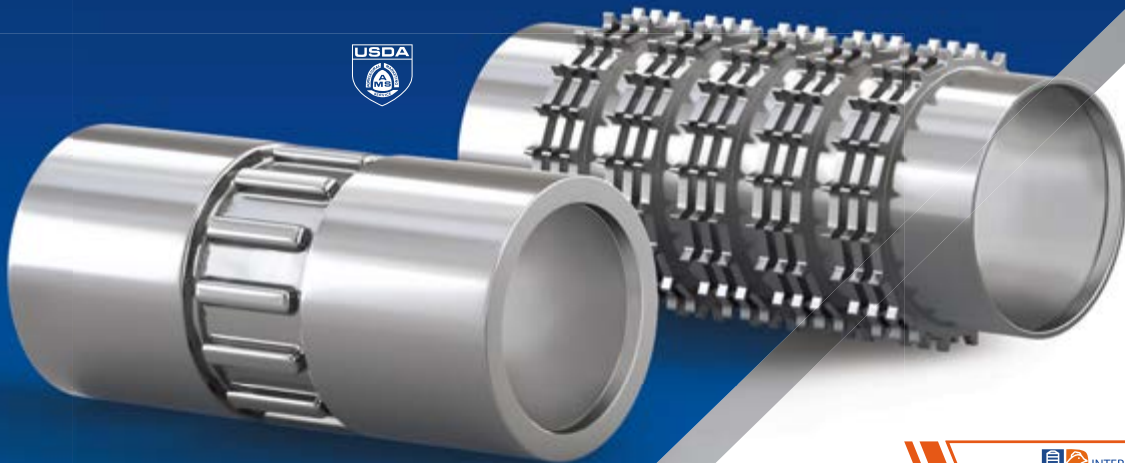
**Tel: (908) 654-0088 • Fax: (908) 654-3866**

**Email: [info@intelligen.com](mailto:info@intelligen.com) • Website: [www.intelligen.com](http://www.intelligen.com)**

**Intelligen also has offices in Europe and representatives in countries around the world**

# New // SSV-XP Drum Motor

## Exchangeable Profiled Sleeve



View Demo



Visit us at Booth **B40033**

The new patented **SSV-XP** Drum Motor features an interchangeable profiled sleeve that can be removed and exchanged for another profiled sleeve to match the belt required on the conveyor without changing the drum motor.

- ▶ Eliminate drive sprockets
- ▶ IP69K-rated sealing system
- ▶ Washdown up to 3,000 psi



Learn more:  
[vandergraaf.com/FP](http://vandergraaf.com/FP)  
(888) 326-1476

