



CRA

2019

INDUSTRY OVERVIEW



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Administrative
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WELCOME LETTER

One year ago in these pages we described CRA's rebranding – our new look, new location and new Kernel of Innovation campaign.

This year that campaign was named a finalist for one of the most coveted awards in public relations and we won the most prestigious award given by the digital and social media community. More impressive still: CRA beat out billion-dollar businesses in both competitions.

Last year, we also detailed our continuing evolution into one of Washington's premier issue management organizations related to food and agriculture. This year, that trend not only continues: it is accelerating.

CRA drove the formation and launch of an entirely new organization, the Plant Based Products Council (PBPC). The group promotes the widespread adoption of renewable biobased products and materials, in addition to the programs and initiatives that support their production, use, and proper disposal.

To support open markets and the USMCA free trade agreement, CRA leveraged and led a number of coalitions, particularly in the food and agriculture sectors. For example, CRA spearheaded a grassroots food industry worker initiative that at this writing has delivered more than 14,000 letters to Members of Congress in support of the USMCA. As a result of our efforts and others, Congressional have officially ratified the agreement.

In the meantime, with our vociferous support, the administration signed the U.S.-Japan Trade Agreement. It is a major victory for our industry and ensures a level playing field for American agriculture in the largest market in Asia.

On biogenic CO2 issues, CRA and our coalition partners are engaging local governors, Members of Congress, the Environmental Protection Agency and other executive branch offices. We are making real progress toward clarifying that biogenic CO2 emissions from the processing and use of agricultural feedstocks are not pollutants subject to Clean Air Act regulation.

On the sustainability front, we joined the Keystone Policy Center's Monarch Collaborative, a group working to improve and increase habitat for the monarch butterfly.

CRA also testified before the Surface Transportation Board concerning the service disruptions and rail charges harming our members. In addition, we remain a leading voice on food and nutrition issues, including biotech and labeling.

Finally, for the second year in a row, CRA expanded its member footprint. Today, our organization features 100% representation of the businesses in the wet milling industry – a rare feat for any trade group. I hope you'll take a moment to read more about these achievements and review our annual compendium of industry statistics in the pages that follow.

Thank you.



Michael Wagner
CRA Chairman



Michael Wagner
Chairman



Rob Ritchie
Vice Chairman



John Bode
President & CEO

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CRA'S AWARD-WINNING YEAR



In 2018, CRA completed a major rebranding. This year, those efforts were nominated for multiple industry awards, winning one and earning a top spot as a finalist for two other awards.

Perhaps most impressive, in the categories in which we competed, CRA was the only trade association to make the final round, battling branding goliaths such as AT&T, BuzzFeed, Cisco, Microsoft, Paramount Pictures and Tysons Foods.

CRA won the most prestigious award given by the digital and social media community, taking home the trophy in the category of Best Brand Redesign at the 11th Annual Shorty Awards.



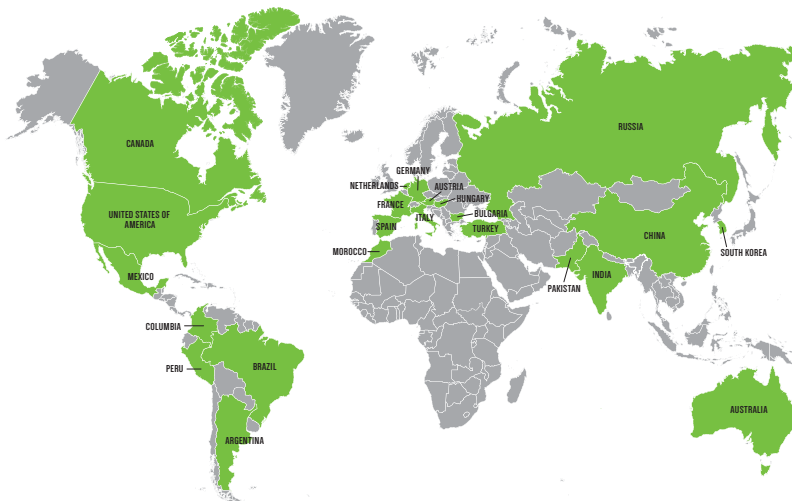
And, at the 2019 North American SABRE Awards, CRA was named a finalist in two categories -- Corporate Reputation and Institutional Image. Coordinated by the trade industry publication The Holmes Report, the SABRE Awards are perhaps the most highly-regarded honors in the public relations industry.

CRA ACHIEVES 100% REPRESENTATION

This year, CRA earned an exceedingly rare milestone for any trade association: we reached 100% industry representation.



Today, CRA truly speaks with a single, unified voice for the corn wet milling industry – representing every company that operates in the United States – spanning ten states, employing more than 8,000 workers directly and supporting an additional quarter-million jobs across the nation.



We are proud to represent our members, whose plants are not only found throughout America's heartland, but across six continents, as well.

DOMESTIC PLANT LOCATIONS 2019



Archer Daniels Midland Company

P.O. Box 1470, Decatur, Illinois 62525

www.adm.com

Domestic Plants:

- Decatur, Illinois 62525
- Peoria, Illinois 61602*
- Cedar Rapids, Iowa 52404
- Clinton, Iowa 52732
- Marshall, Minnesota 56258
- Columbus, Nebraska 68601
- Southport, North Carolina 28461*



Cargill

P.O. Box 5662/MS62, Minneapolis, Minnesota 55440

www.cargill.com

Domestic Plants:

- Hammond, Indiana 46320
- Cedar Rapids, Iowa 52406
- Eddyville, Iowa 52553
- Fort Dodge, Iowa 50501
- Blair, Nebraska 68008
- Wahpeton, North Dakota 58075
- Dayton, Ohio 45413



Grain Processing Corporation

1600 Oregon Street, Muscatine, Iowa 52761-149

www.grainprocessing.com

Domestic Plants:

- Muscatine, Iowa 52761
- Washington, Indiana 52353



Ingredion Incorporated

5 Westbrook Corporate Center, Westchester, Illinois 60154

www.ingredion.com

Domestic Plants:

- Bedford Park, Illinois 60502
- Indianapolis, Indiana 46221
- Cedar Rapids, Iowa 52404
- North Kansas City, Missouri 64116
- Winston-Salem, North Carolina 27107



Roquette America, Inc

1417 Exchange Street, Keokuk, Iowa 52632

www.roquette.com

Domestic Plants:

- Gurnee, Illinois 60031*
- Keokuk, Iowa 52632



Tate & Lyle Americas

(A subsidiary of Tate & Lyle, PLC)

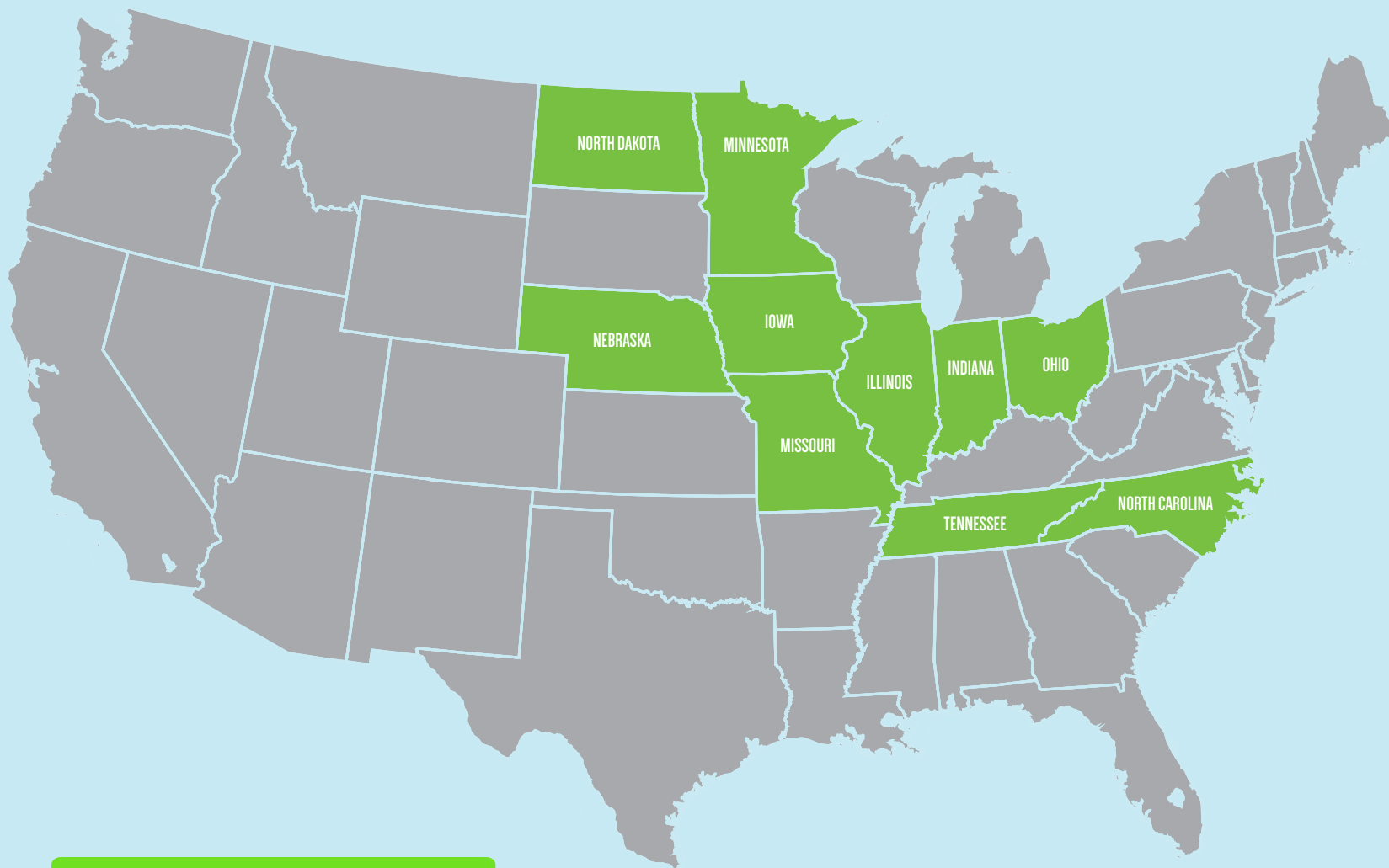
P.O. Box 151, Decatur, Illinois 62525

www.tateandlyle.com

Domestic Plants:

- Decatur, Illinois 62521
- Lafayette, Indiana 47902
- Lafayette, Indiana 47905
- Dayton, Ohio 45424*
- Loudon, Tennessee 37774

**Specialty corn-based refinement facilities.
Plants do not grind corn.*



International locations available at www.corn.org

CRA LAUNCHES NEW ADVOCACY GROUP PLANT BASED PRODUCTS COUNCIL (PBPC)

In January 2019, CRA helped create and launch the Plant Based Products Council (PBPC), a group of organizations working to guide the global economy toward more sustainable and responsible consumer products and packaging through greater use of renewable plant-based materials. We also advocate for programs supporting the circular bioeconomy – ensuring used materials find their highest economic value instead of becoming waste.



PBPC'S MISSION STATEMENT

The mission of the Plant-Based Products Council is to promote the adoption and use of products derived from renewable biomass.



PBPC'S OBJECTIVES



Enhance public awareness of the vast economic, environmental, and social benefits of plant-based products.



Encourage collaboration between business, government, and non-profits to incorporate principles of a circular bioeconomy into consumer products and industrials.



Advocate for policy that encourages the transition to renewable products.



Provide a platform for stakeholders throughout the plant-based product value chain to connect and collaborate.



MEET PBPC'S EXECUTIVE DIRECTOR

Jessica Bowman joins PBPC from the American Chemistry Council, where she served as Executive Director of the FluoroCouncil, and previously held the title of Senior Director of Environmental Affairs for the Airports Council International – North America. She brings seventeen years of combined trade association experience to PBPC. She holds a J.D. with a concentration in environmental law from University of Maryland School of Law and a B.S. in GeoEnvironmental Engineering from Penn State University.

Jessica said of the new organization,

"The vision of PBPC is simple: bio-based products and materials offer us the opportunity to harness American innovation to deliver a sustainable future for not only our environment, but our economy. I am excited to help bring together a growing number of companies and stakeholders aimed at moving the global economy toward more sustainable and responsible consumer products and packaging."













"We are excited to have Jessica leading the PBPC into 2020 and beyond. Her experience will ensure a member-driven advancement of the PBPC mission."

– Mike Wagner, PBPC Board Chair

PBPC ACHIEVEMENTS

In less than a year since its launch, PBPC has burst onto the scene to lead a number of major initiatives. These include, but are not limited to:

-  **Attended the White House Summit** on America's Bioeconomy.” The event brought together a cross-section of stakeholders to outline actions needed to advance the US bioeconomy
-  **Established the US Bioeconomy Coalition** to raise the profile of the bioeconomy among 2020 Presidential candidates
-  **Grew the organization, which already includes more than 60 members**
-  **Influenced federal infrastructure legislation** to support federal investment in composting infrastructure and the inclusion of bio-based recyclable materials in recycling infrastructure
-  **Created and mainted a public online database of plant-based products**
-  **Established a regular bi-weekly newsletter** to disseminate information to members, the public and the press – currently distributed to over 800 recipients.
-  **Combating misinformation about bioproducts** through a “myth-busting” campaign that corrects the record, focusing on solutions and balanced, science-driven discussion

-  **Presented at the Institute of Food Technologists conference**
-  **Launched a website, social media presence,** paid advertising campaign and created plant-based products fact sheets
-  **Hosted a composting webinar** as a part of International Composting Awareness Week



MEET PBPC'S MEMBERS

Less than a year old, the organization has already attracted more than 60 members and is planning to grow in 2020. These businesses, large and small, from across the United States, represent every link in the plant-based product supply chain from feedstock suppliers to polymer manufacturers to product manufacturers and consumer products companies. Our members include:



PBPC'S ADVISORY BOARD

The council also features an Advisory Board consisting of leading environmental organizations, academics and NGOs reflecting our organization's commitment to collaboration. The Advisory Board helps to guide our organization and assist in the formulation of PBPC policies. Their insights have been essential to PBPC's development and we are eager for their continued guidance as we build out PBPC's policy initiatives.



USMCA COALITION & FARMERS FOR FREE TRADE



To support USMCA, CRA has played an integral role in multiple leading advocacy groups including **Farmers for Free Trade (FFT)**, the **USMCA Coalition** and others.

CRA served as a steering committee member of FFT, a group made up of farmers and ranchers and their trade organizations, who have worked tirelessly to drive the USMCA toward the finish line. The group highlights the importance of trade not just in rural areas, but for suburban and urban areas too – across the entire food and agricultural value chain.

As part of its efforts, FFT launched the Motorcade for Trade: a cross-country trip in a 25-foot recreational vehicle covered in imagery and messaging supporting the USMCA. The vehicle crisscrossed 20 states logging over 20,000 miles, while making 47 stops to gather farmers, policymakers and media to discuss the importance of free trade. CRA supported the tour as an FFT steering committee member, but also pitched-in on the ground, too. And at the final stop in Washington, DC, the motorcade team hosted a rally at the US Capitol with Members of Congress speaking in support of USMCA. A roundtable followed, where John Bode spoke about the importance of trade for the food and agriculture sectors.

CRA also led the coalition effort to send "thank you" letters to more than 200 Members of Congress who voiced their public support for USMCA passage and provided social media kits to help members promote their receipt of the USMCA Coalition "thank you" letter.

Working with the USMCA Coalition, CRA ensured the successful build-out of an online grassroots tool and worked with other members to develop subsequent grassroots efforts. CRA's work delivered more than 15,000 constituent letters about the importance of free trade to wavering Members of Congress in just a handful of months. CRA staff is also serving as the central hub for distributing social media and earned media among USMCA members to keep them apprised of developing events and involved in amplifying our message.



BIOGENIC CO2 COALITION

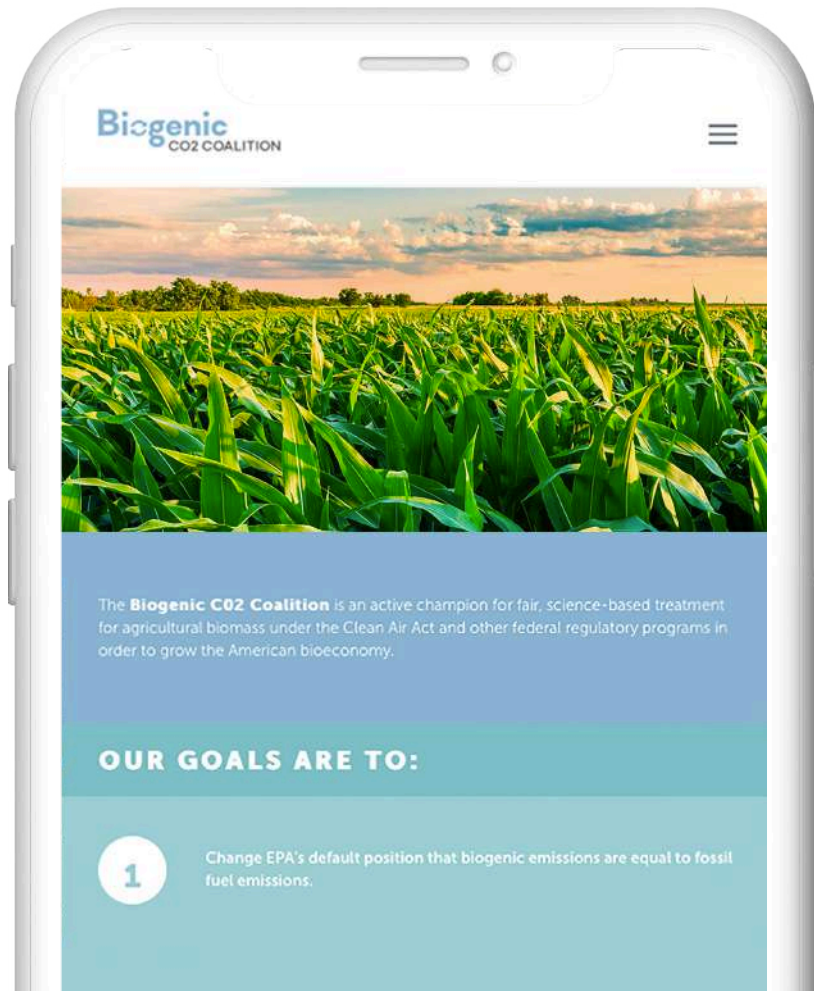


The Biogenic CO2 Coalition urged the EPA in a bipartisan letter to maintain its timeline for proposed rulemaking to further clarify that there currently is no basis for the agency to regulate biogenic emissions from processing or use of agricultural crops under the Clean Air Act.

Nearly ten years ago, the Environmental Protection Agency (EPA) began using the Clean Air Act to regulate biogenic emissions from stationary sources. Modification or construction of facilities ground to halt due to the new rules and resultant concerns over increasing cost and difficulty. Worse, the rules have created a bottleneck in the production of environmentally-friendly advanced bioproducts, including renewable, compostable or recyclable bioplastics. Yet, becoming a production center for such products could boost economic and manufacturing opportunities in America's heartland.

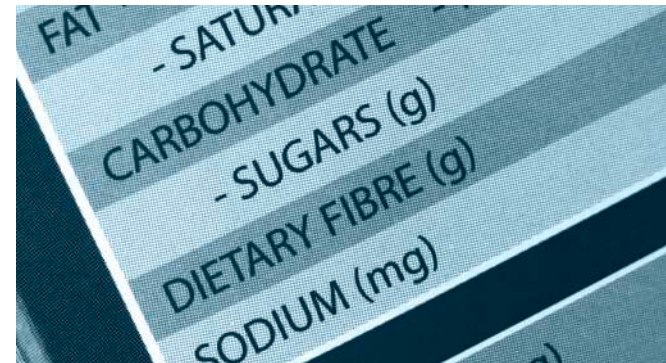
Because such emissions are part of the natural carbon cycle for short-cycle crops, CRA and its coalition have recommended that biogenic emissions should be counted as *de minimis* when determining if a facility is a major source of CO2. As a result of our efforts in 2019, five Midwestern governors sent a letter to the EPA echoing our concerns. Meanwhile, CRA has met with multiple policy making groups within the administration to drive the change in policy. And, new leadership at the EPA has shown its commitment to resolve the biogenic issue.

The coalition is composed of nine organizations, including the American Bakers Association, the American Farm Bureau Federation, the Corn Refiners Association, Enginuity Worldwide, the National Corn Growers Association, the National Cotton Council of America, the National Cottonseed Products Association, the National Oilseed Processors Association and the North American Millers' Association.



FOOD AND BEVERAGE ISSUE ALLIANCE

Following the publication of the proposed rule on revisions to the Nutrition Facts Label in 2014, the Food and Beverage Issue Alliance (FBIA) was established as a coalition of food associations representing US Food and Drug Administration (FDA) regulated products. Since its establishment, over 50 associations have joined. CRA plays a significant role within FBIA, serving as a lead voice on issues and in dialogue with FDA staff, including previous FDA Commissioners. Staff also has led or currently leads several working groups within FBIA on priority issues for CRA, including the Dietary Guidelines and ingredient simplification, which are objectives of the FDA's Nutrition Innovation Strategy. CRA also has initiated FBIA dialogue with key congressional staff regarding the nomination of the new FDA Commissioner Stephen Hahn. CRA staff also chairs multiple FBIA working groups, which helps us set priorities and objectives of the coalition.



NATIONAL AGRICULTURE DAY – CAPITOL RECEPTION

This year, CRA organized the National Agriculture Day reception on Capitol Hill at the Capitol Visitor Center. The reception was attended by approximately 200 Members of Congress, congressional staff members and industry representatives. Featured speakers at the event were Senator Pat Roberts, Congressman Doug LaMalfa and United States Department of Agriculture Deputy Secretary Stephen Censky, all of whom saluted farmers and the men and women who work throughout the food and agriculture supply chain. While this was CRA's first time co-sponsoring the event, we are already volunteering to return and help organize next year's National Agriculture Day on the Hill.



FEEDING THE ECONOMY

Two years ago, CRA helped launch this first-of-its-kind economic study that quantified the combined economic contributions of the food and agriculture value chains. In conjunction, CRA coordinated development of the public website – feedingtheeconomy.com – showcasing the economic impact data.

This year, we updated the economic data and revamped the website, adding a new tool that reveals statistics by congressional district to the previously provided state-level data. This data has been a lynchpin in our advocacy efforts, including on international trade and the USMCA. The information has been utilized for letters to policymakers and is often taken to meetings on the Hill, impressing upon legislators the economic impact of the entire supply chain and the importance of supporting our issues.

THE NUMBERS BELOW INCLUDE SUPPLIERS THAT SUPPORT THE FOOD AND AGRICULTURE INDUSTRIES, AS WELL OTHER SECTORS THAT DEPEND ON OUR ECONOMIC CONTRIBUTIONS.



Jobs:
45,582,086



Output:
\$7.06 Trillion



Wages:
\$2.07 Trillion



Exports:
\$152.85 Billion



Taxes:
\$913.13 Billion

The Corn Refiners Association is active on a number of critical issues essential to the well-being of the corn wet milling industry. These key issues, addressed through member-driven committees, span international trade, food policy, the environment, advanced bioproducts, transportation, and sustainability, each described in the following pages.

TRADE POLICY

Reducing and eliminating barriers to trade in refined corn products remains one of CRA's highest priorities, with a leading focus this year on agreements among the US, Mexico and Canada (through the USMCA) and between the US and Japan.

In 2019, the US and Japan successfully concluded a trade agreement that lowered tariffs on agriculture products, including several CRA products. Japan is the largest export market for CRA products in Asia. That agreement, which was approved by the Japanese Diet in December, is essential to regaining a level playing field with our international competitors.

Meanwhile, CRA is pleased to be working with the Administration and Congress towards ratification of the USMCA, as Canada and Mexico are the two largest export markets for refined corn products, with over \$900 million in shipments a year. The agreement expands and improves upon the prior agreement on sanitary and phytosanitary measures, good regulatory practices, customs procedures, and cooperation on biotechnology. Importantly, dispute settlement provisions covering antidumping and countervailing duty reviews were wholly maintained.

The Trade Committee is responsible for providing to the Board recommendations regarding international trade matters that could affect the corn refining industry.

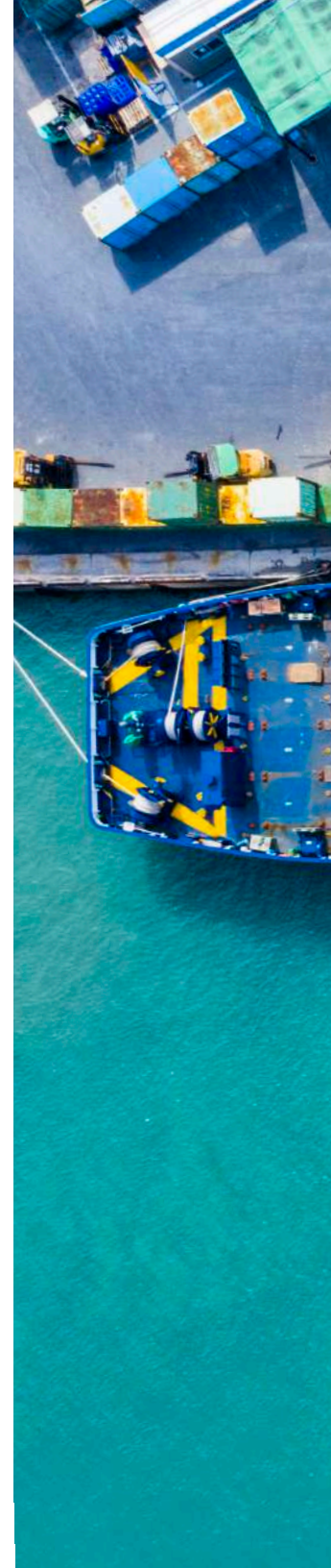
ISSUES

- USMCA (formerly NAFTA)
- U.S. – Japan Trade Agreement on Agriculture
- Improving Market Access for Products of Modern Biotechnology
- Supporting New Trade Agreements
- WTO Reform



Michael Anderson

*Vice President,
Trade & Industry Affairs*





FOOD POLICY

Refined corn products have been part of the American diet for well over a century and represent one important option for providing the nutritional fiber, protein and carbohydrates required in a healthy diet. To promote consumers' healthy purchasing decisions, CRA strongly supports food and nutrition policies which are backed by sound scientific evidence. Refined corn products are also considered to be some of the safest human food ingredient products available today, with a long history of safe use.

That's why CRA has been active on nutrition policy and biotech issues over the last year, serving as a leading voice for the food and ingredient industry. In December 2018, the U.S. Department of Agriculture's (USDA) Agricultural Marketing Service published their final rule on the National Bioengineered Food Disclosure Standard (NBFDS), which closely tracked with CRA's recommendations. Meanwhile, CRA remains engaged on specific aspects for compliance, particularly related to validation testing of refined products and disclosure requirements for labeling purposes.

Two key committees drive CRA policies regarding consumer health and safety: the Health & Wellness and Product Safety & Quality committees. The Health & Wellness Committee provides recommendations to the Board regarding the public health role of refined corn products, including research that supports the nutrition education mission of CRA. The Product Safety & Quality

Committee is responsible for providing recommendations to the Board regarding a range of product safety and quality matters generally regulated by the U.S. Food and Drug Administration (FDA) and USDA.

ISSUES

- Biotech (GMO) Labeling Law and USDA Rulemaking
- Dietary Guidelines for Americans
- U.S. FDA Nutrition Innovation Strategy
- International Labeling Initiatives
- International Organization Activities (e.g., Codex Alimentarius, JECFA)
- Mycotoxin Reviews



Allison Cooke

Director, Food Policy



ENVIRONMENTAL POLICY

In 2010, the Environmental Protection Agency (EPA) began using the Clean Air Act to regulate greenhouse gases, including biogenic emissions, from stationary sources. As a result, the ability to modify or reconstruct a facility to expand bioproduct production has become more difficult and costly, despite the fact that many of these new technologies would create environmentally-friendly advanced bioproducts, and renewable, compostable or recyclable bioplastics.

CRA and its coalition partners have advocated that biogenic emissions should be counted as *de minimis* by EPA when determining if a facility is a major source of CO₂ because such emissions are negated when growers plant and grow more short-cycle crops. In 2019, CRA engaged Congress, Midwestern governors, and multiple policymaking groups with the Administration to drive a proposed change in policy. New leadership at the EPA has shown its commitment to resolve the biogenic issue. CRA believes this is an important step in boosting economic and manufacturing opportunities in America's heartland.

CRA's Environmental Affairs Committee is responsible for providing the Board recommendations regarding environmental matters, particularly matters generally regulated by the EPA, including air quality, water quality, and pollution mitigation. CRA's Workplace Safety Committee is responsible for providing the Board recommendations and promoting workplace matters generally regulated by the Occupational Safety and Health Administration.

ISSUES

- Biogenic CO₂ Emissions
- NSR/PSD Reform
- Waters of the United States (WOTUS) / Clean Water Rule
- EPA's RMP Program
- Process Safety Management of Highly Hazardous Chemicals
- Renewable Fuels Standards 2 (concerning corn oil as feedstock)



Eamon Monahan

*Director, Environmental Affairs
& Workplace Safety*





ADVANCED BIOPRODUCTS

Today, renewable, sustainable corn products are a commercially-viable alternative to many traditional chemicals and materials, from hard plastics to cosmetics to carpets. And with technological improvements in fermentation techniques, they are moving into the next generation of technology: utilized in 3-D printing inks and studied by nanotechnology scientists as a method for delivering cancer treatments. These and other advanced biobased products made from a wide variety of feedstocks represent an estimated global market value of more than \$440 billion by 2020.

To promote biobased materials, CRA helped launch PBPC and the U.S. Bioeconomy Coalition. The first group, detailed at the front of this book, will help drive policies and education that support the consumer and commercial adoption of plant-based products, and their proper disposal. Meanwhile, the Bioeconomy Coalition is designed to raise awareness of the bioeconomy during the 2020 election.

The Advanced Bioproducts Committee is responsible for providing the Board recommendations regarding policies that may facilitate development of a dynamic bioproducts market for the corn refining industry. The Committee also works with USDA agency staff, as well as allies in Congress, to help raise awareness of barriers to a vigorous bioeconomy.

ISSUES

- Advanced Bioproducts
- The Plant Based Products Council (PBPC)
- U.S. Bioeconomy Coalition
- Municipal Waste/ Product End of Life



Jessica Bowman

*Vice President,
Advanced Bioproducts*



TRANSPORTATION POLICY

For years, elected officials from both parties have raised concerns about America's aging infrastructure and strained transportation systems, recognizing the need to refurbish our nation's rail systems, roads, airports, and ocean ports. This is a key issue for our members and that's why CRA continues to work with more than 200 other rural and agricultural groups on critical infrastructure issues.

Among the most important transportation issues CRA engaged in this year, CRA's John Bode testified before the Surface Transportation Board (STB), raising concerns about harm to our members, including serious service disruptions and excessive rail fees related to demurrage, storage and accessorial tariffs. CRA noted the overall lack of reciprocity and commercial fairness in rail practices and asked the board to invoke its recently restored authority to investigate them.

CRA has also actively commented on recent policy statements and rule proposals at the STB to ensure CRA members are heard and to provide a rail customer's perspective.

CRA's Transportation Committee provides advice and guidance on legislative and regulatory policy issues related to transportation and infrastructure, and currently is focusing on advancing CRA member priorities for a future infrastructure package. CRA acts as an informal steering committee member for the

Agriculture Transportation Working Group and is active in both the Rebuild Rural Coalition and Rail Customer Coalition, all of which of which focus on infrastructure initiatives.

ISSUES

- Infrastructure Funding
- Rail Competition Issues
- Waterways Funding
- Highway Trust Fund
- Surface Transportation Board Issues and Nominations



Michael Anderson

*Vice President,
Trade & Industry Affairs*



SUSTAINABILITY POLICY

CRA is committed to serving member companies as they strive for sustainability in all aspects of their operations, balancing economic viability, environmental impact, and societal benefits. That is why CRA serves as a leading voice in a broad range of industry and environmental coalitions focused on sustainability across the corn and agriculture value chain.

This year, CRA teamed with the Colorado-based Keystone Monarch Collaborative for a new initiative to help restore and protect monarch butterflies. Monarch butterfly populations have been dwindling for the last two decades and through this program, agriculture organizations, farmers, and public agencies are joining forces to help their conservation and recovery.

CRA also helped launch a fellow forward-leaning association to promote environmental sustainability, the Plant Based Products Council, which promotes products and packaging made from sustainable, renewable plant feedstocks, replacing unsustainable, and fossil fuels.

Meanwhile, CRA continues its involvement with Field to Market, an alliance of organizations dedicated to sustainable agriculture. Field to Market advances continuous, science-based environmental improvements across the U.S. agriculture value chain.

CRA's Sustainability Committee offers guidance to CRA's Board concerning a broad range of sustainability issues and initiatives, whether related to government policy at the state or federal level or driven by partners and stakeholders from the business community or not-for-profit organizations. Working with these and other appropriate partners, CRA stands with its member companies to solve some of the most complex challenges of the 21st century.

ISSUES

- Plant Based Products Council (PBPC)
- Keystone Monarch Collaborative
- Field to Market
- Highway Trust Fund
- Industry Image Enhancement



Justin Maroccia
Manager, Sustainability



ADDITIONAL CRA COMMITTEES

STATISTICAL REPORTING COMMITTEE

The Statistical Reporting Committee is responsible for ensuring the accuracy and usefulness of the Association's shipments and grind reports via oversight of the Statistical Reporting Program.

CO-PRODUCTS SUBCOMMITTEE

The Co-Products Subcommittee is responsible for overseeing and providing recommendations to the Product Safety & Quality Committee on industry issues that concern corn oil, corn gluten feed, and corn gluten meal.

GOVERNMENT RELATIONS COMMITTEE

The Government Relations Committee is responsible for providing guidance, oversight, and support to CRA's government relations function, and recommendations to the Board regarding advocacy of CRA policy objectives.

COMMUNICATIONS COMMITTEE

The Communications Committee is responsible for providing the Board recommendations regarding CRA education and marketing activities, the public image of CRA and the corn wet milling industry, and other communication matters.



STRATEGIC PARTNERS

To accomplish our goals in Washington, CRA works hand in hand with a wide range of other trade associations, ad hoc coalitions, and aligned businesses. These strong, strategic relationships ensure our voice is amplified on the most pressing policy issues of the day and enables CRA to consistently punch above its weight class. Examples include:



AWARD WINNERS

15 Corn Refining Facilities Win Industry Safety Awards from Corn Refiners Association

Every year, CRA honors corn refining facilities for their outstanding safety records and their unyielding commitment to ensuring an accident-free workplace. With 27 plants among CRA members nationwide, 15 facilities, or more than half, were **recognized for achievements in workplace safety this year.**

“The men and women on the refinery floor are the beating heart of this industry, and it is absolutely imperative we provide them the safest possible working environment. I’m exceptionally proud to see so many of our members’ facilities achieving excellence in workplace safety.”

President & CEO of CRA, John Bode

CRA Incident Rate Excellence Award

This award recognizes those plants that have achieved a superior level of safety performance, as demonstrated by all of the following:

- an employee total recordable incident rate of 1.0 or less;
- no employee lost workday cases involving days away from work for the calendar year; and
- no employee or non-employee workplace fatalities for the calendar year.

Archer Daniels Midland Company

Clinton, IA; Peoria, IL; Southport, NC

Cargill, Incorporated

Blair, IA; Eddyville, IA; Hammond, IN; Indianapolis, IN;
Paris, IL; Whapeton, ND

Ingredion Incorporated

Argo (Bedford Park), IL; Indianapolis, IN; North Kansas City, MO;
Cedar Rapids, IA

Tate & Lyle Americas

Dayton, OH; Lafayette, IN; Loudon, TN

Roquette

Gurnee, IL

CRA One Million Hour Award

This award acknowledges facilities that operate for 1 million consecutive employee hours without an employee lost workday and without a workplace-related fatality of an employee or non-employee during that period.

Archer Daniels Midland Company

Clinton, IA

Cargill, Incorporated

Blair, NE; Cedar Rapids, IA; Eddyville, IA

Ingredion Incorporated

Argo (Bedford Park), IL

CRA Zero Lost Workdays Award

The award acknowledges facilities for operating a full calendar year without an employee lost workday case and without a workplace-related fatality of an employee or non-employee during the calendar year. The awardees listed above are for CY2017.

Archer Daniels Midland Company

Clinton, IA; Peoria, IL; Southport, NC

Cargill, Incorporated

Blair, IN; Eddyville, IA; Hammond, IN; Indianapolis, IN; Paris, IL; Whapeton, ND

Ingredion Incorporated

Argo (Bedford Park), IL; Indianapolis, IN; North Kansas City, MO; Winston-Salem, NC

Tate & Lyle Americas

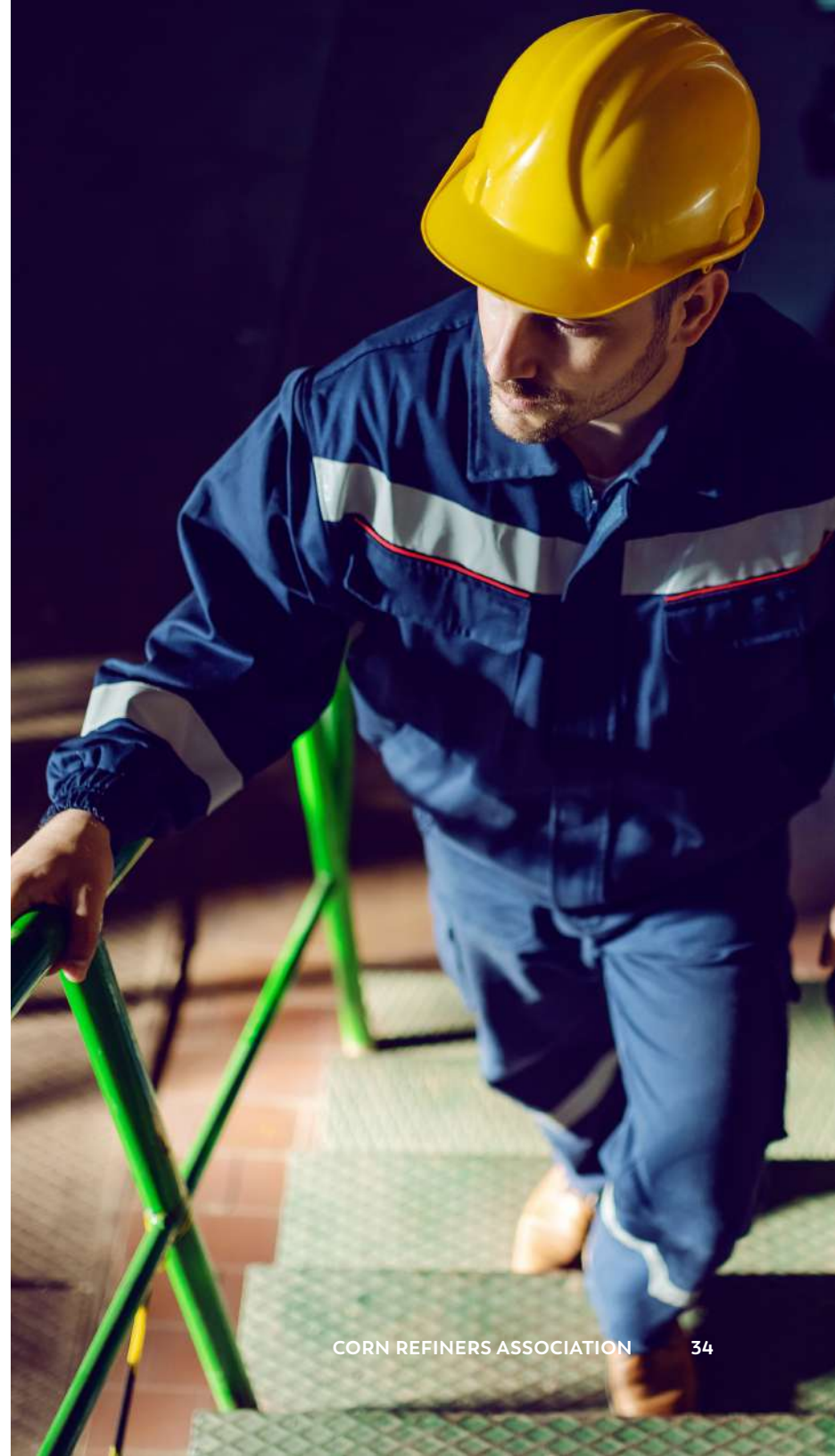
Dayton, OH; Lafayette, IN; Loudon, TN

Roquette

Gurnee, IL

About The Safety Program

CRA has always recognized the vital importance of safety in its plants, products, and manufacturing processes. An awards program was implemented in 2009 to further underscore the industry's commitment to safety. In 2013, the program expanded to include bioprocessing and specialty product refinement facilities.

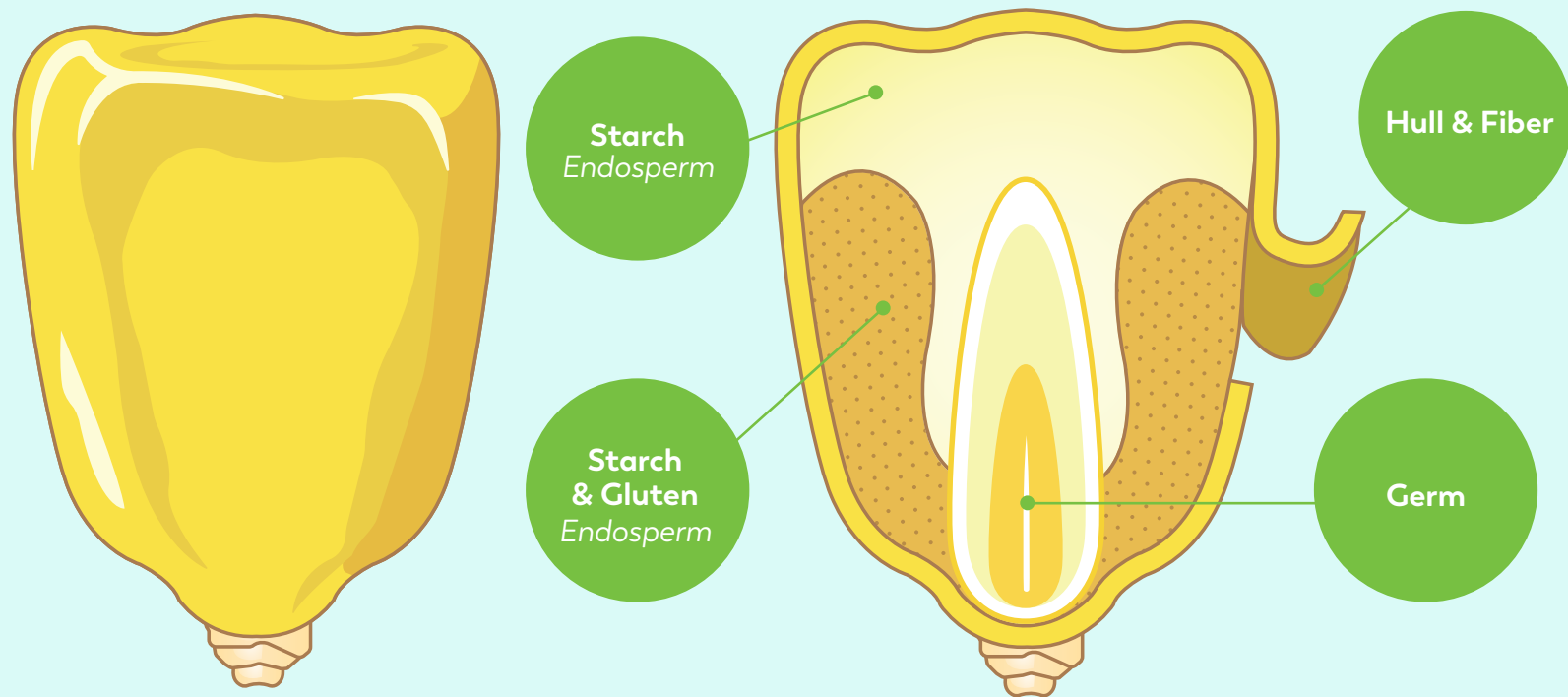


CORN REFINING – THE FOUR COMPONENTS OF THE KERNEL

It is incredible to think all of these products — from bioplastics to those found in our Kernel of Innovation campaign (pages 13-16) — all incorporate corn products.

Yet, it all starts with corn refining. **For more than 150 years, the corn refining industry has been perfecting the process of separating corn kernels into their component parts.** Through corn wet milling, a kernel is divided into starch, germ, fiber and protein.

The award-winning wet mills on the prior pages, and others as well, are the heart of the corn refining process. While these plants utilize the latest in technology, the core of the business has remained the same for a century-and-a-half. Since its beginning, mills have taken dent corn kernels and separated them into their component parts — starch, germ, fiber, and protein — and **today those ingredients are an essential part of thousands of consumer and industrial products.**



U.S. CORN REFINING INDUSTRY AT A GLANCE - 2018

Corn Refining Plants	25
Additional Processing Plants	4
Location	10 states
Annual Corn Grind	1.67 billion bushels (42.33 MMT)
Value of Corn Purchased	\$5.55 billion
Number of Corn Suppliers	41,000
Employment by CRA Member Companies	7,948
Capital Investment (Replacement Value)	\$20.62 billion
Value Added by Manufacture	\$11.92 billion

MAJOR PRODUCTS

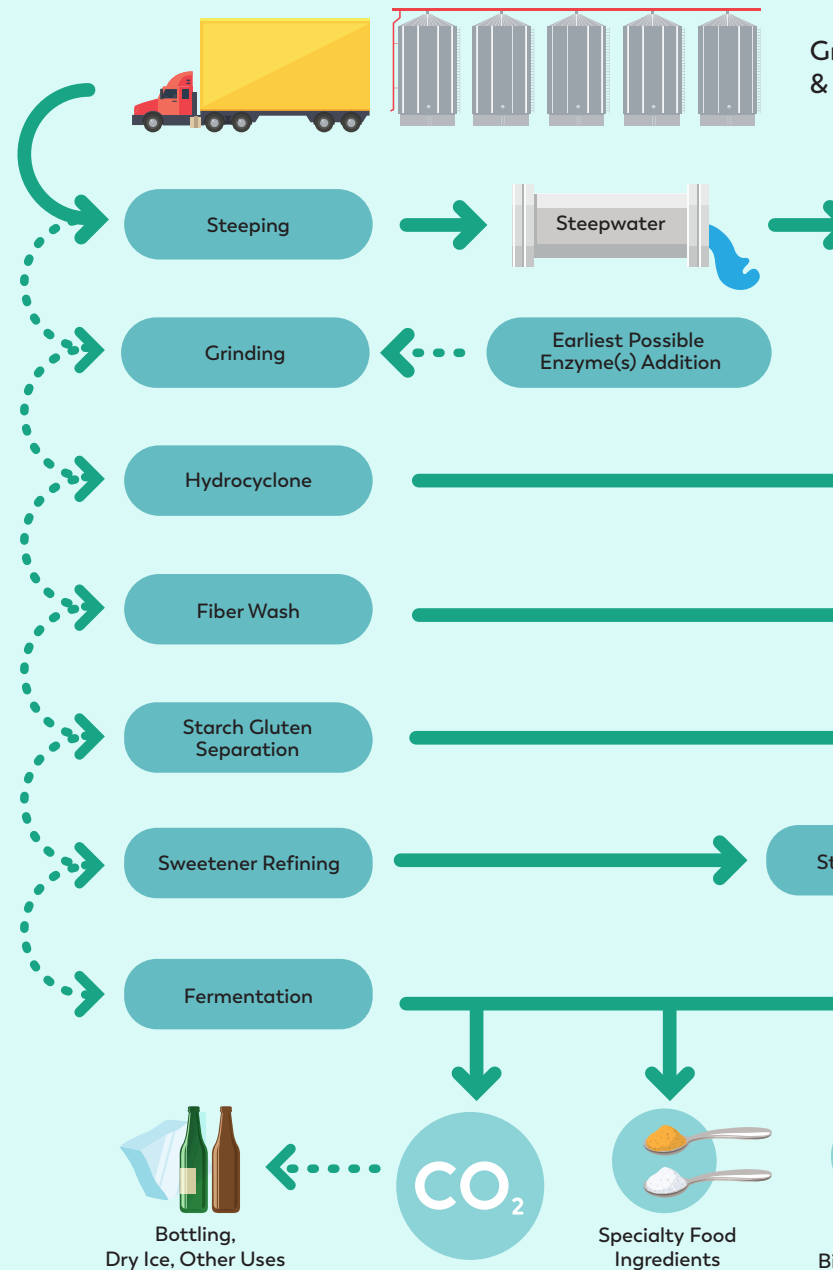
Sweeteners (dry weight)	27.40 billion pounds (12.43 MMT)
Starches	7.43 billion pounds (3.37 MMT)
Ethanol	1.62 billion gallons
Co-products	29.16 billion pounds (13.23 MMT)

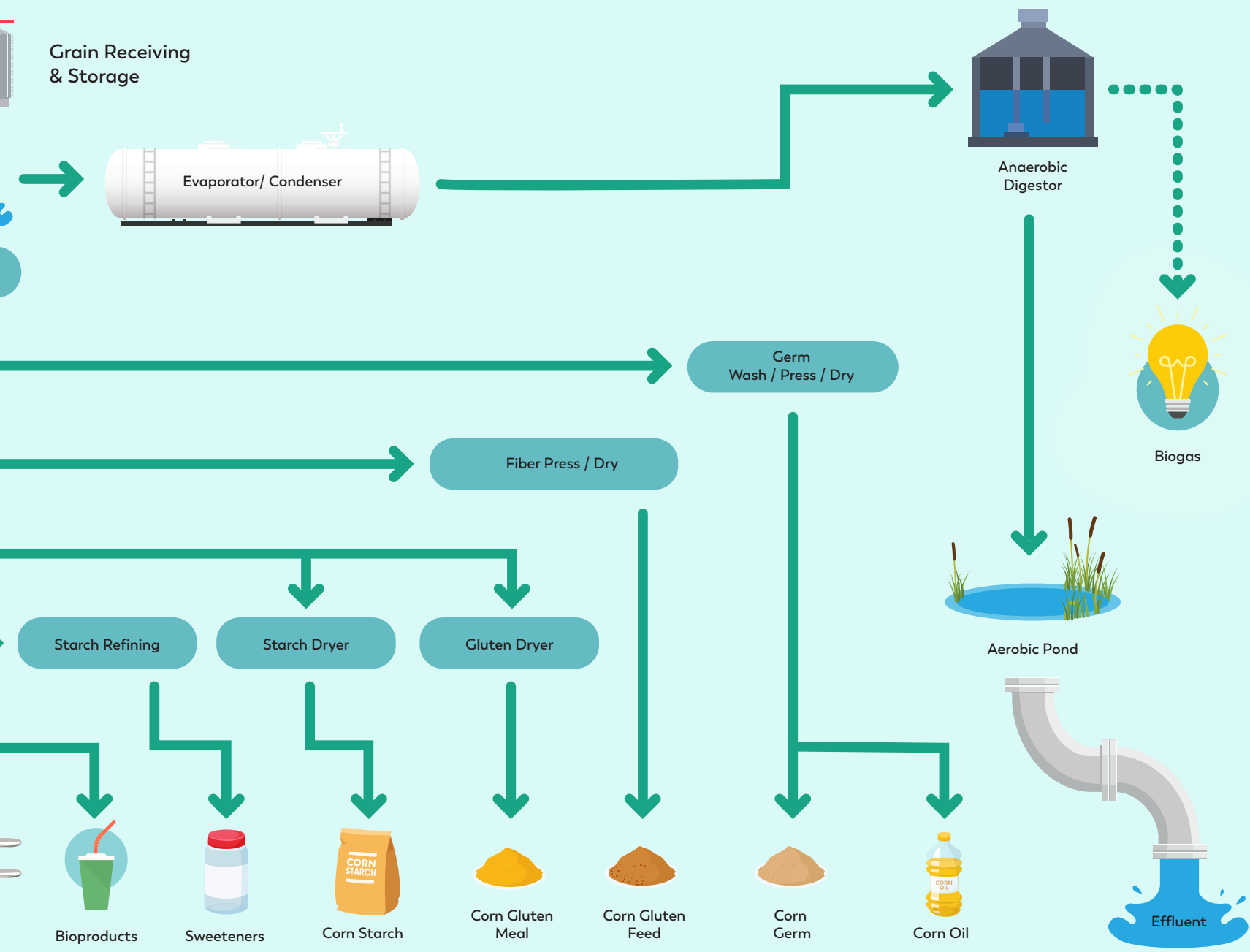
***MMT = million metric tons**

Compiled by the Corn Refiners Association based on data from the U.S. Department of Agriculture, Bureau of Labor Statistics, LMC Commodity Studies, Renewable Fuels Association, Energy Information Administration, and industry data compiled for CRA by Vault Consulting, LLC. Figures are representative of entire U.S. industry.

THE CORN REFINING PROCESS SIMPLIFIED

When corn wet milling began in the 1840s, the process utilized gravity, flat-bottom wooden tanks, and wooden shakers, and some of the kernel's separated components were discarded as waste. Today, corn wet millers utilize central process control computer systems and stainless steel membranes. In addition, what was once considered waste energy is today being recirculated throughout the system. And of course, **we utilize every component of the kernel.**





CORN REFINERS ASSOCIATION MEMBER COMPANIES' PRODUCTS 2019

	Archer Daniels Midland Company	Cargill	Grain Processing Corporation	Ingredion Incorporated	Roquette America, Inc.	Tate & Lyle Americas
STARCH						
Unmodified, food	•	•	•	•	•	•
Unmodified, industrial	•	•	•	•	•	•
Modified, food	•	•	•	•	•	•
Modified, industrial	•	•	•	•	•	•
Dextrins	•	•		•	•	•
SWEETENERS						
Glucose syrups	•	•		•	•	•
Maltodextrins	•	•	•	•	•	•
Dextrose monohydrate	•	•		•	•	•
Dextrose anhydrous		•		•	•	
High Fructose Corn Syrup-42	•	•		•	•	•
High Fructose Corn Syrup-55	•	•		•	•	•
Crystalline fructose	•					•
REDUCED-CALORIE SWEETENERS						
Allulose	•			•		•
Erythritol		•				
Glucose hydrolysates		•		•	•	
Hydrogenated starch hydrolysates				•	•	
Maltitol	•	•		•	•	
Mannitol	•	•		•	•	
Sorbitol	•	•		•	•	
Xylitol		•			•	

	Archer Daniels Midland Company	Cargill	Grain Processing Corporation	Ingredion Incorporated	Roquette America, Inc.	Tate & Lyle Americas
CO-PRODUCTS						
Crude oil	•	•	•	•	•	
Refined oil	•	•		•		
Corn gluten feed	•	•	•	•	•	•
Corn gluten meal	•	•	•	•	•	•
Corn germ or corn germ meal	•	•	•	•	•	•
Steepwater (CFCE)	•	•		•	•	•
Carbon dioxide	•		•			•
Corn fiber food/industrial ingredients	•	•		•	•	•
FERMENTATION AND OTHER PRODUCTS						
Citric acid	•	•				•
Lactic acid		•				
Lysine	•					
Threonine	•					
Xanthan gum	•	•		•		
Ethanol, fuel/industrial	•	•	•	•	•	•
Ethanol, beverage	•	•	•			

*Product lists are accurate as of publication date, but may change with time.
(as of November 15, 2019)*

SHIPMENTS OF PRODUCTS

Shipments of Products of the Corn Refining Industry – 2018	Pounds, commercial weight		Converted
Starch Products <i>(includes corn starch, modified starch and dextrins)</i>	5.58	billion	2.53 MMT
Refinery Products <i>(includes glucose syrup, high fructose corn syrup, dextrose, corn syrup solids, maltodextrins)</i>	31.85	billion	14.45 MMT
High Fructose Corn Syrup 42%	6.10	billion	2.77 MMT
High Fructose Corn Syrup 55% and Above	11.10	billion	5.03 MMT
Total High Fructose Corn Syrup	17.19	billion	7.80 MMT
Total — Domestic Basic Products	37.43	billion	16.98 MMT
Total — Export Basic Products	4.30	billion	1.95 MMT
Corn Oil — Crude and Refined	1.32	billion	0.60 MMT
Corn Gluten Feed and Corn Oil Meal	11.86	billion	5.38 MMT
Corn Gluten Meal	1.98	billion	0.90 MMT
Steepwater	2.86	billion	1.30 MMT
<i>Compiled for the Corn Refiners Association by Vault Consulting, LLC. Statistics represent shipments by members of the Association. Shipments are in pounds, commercial weights, and do not include co-products derived from ethanol production.</i>			

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