



DuPont Industrial Biosciences



Contacts: **DuPont Industrial Biosciences**  
Wendy Rosen  
650-284-6429  
[wendy.rosen@dupont.com](mailto:wendy.rosen@dupont.com)

**ADM**  
Jackie Anderson  
312-634-8484  
[media@adm.com](mailto:media@adm.com)

**DuPont Industrial Biosciences and ADM Announce Breakthrough Platform Technology for  
Long Sought-After Molecule  
*Opens Up Vast Landscape of Bio-based Materials Offerings***

WILMINGTON, Del., Jan. 19, 2016 — Today, science and agricultural leaders [DuPont Industrial Biosciences](#) (DuPont) and [Archer Daniels Midland Company](#) (ADM) announced a new breakthrough process with the potential to expand the materials landscape in the 21<sup>st</sup> century with exciting and truly novel, high-performance renewable materials. The technology has applications in packaging, textiles, engineering plastics and many other industries.

The companies have developed a method for producing *furan dicarboxylic methyl ester* (FDME) from fructose. FDME is a high-purity derivative of *furandicarboxylic acid* (FDCA), one of the 12 building blocks identified by the U.S. Department of Energy that can be converted into a number of high-value, bio-based chemicals or materials that can deliver high performance in a number of applications. It has long been sought-after and researched, but has not yet been available at commercial scale and at reasonable cost. The new FDME technology is a more efficient and simple process than traditional conversion approaches and results in higher yields, lower energy usage and lower capital expenditures.

This partnership brings together ADM's world-leading expertise in fructose production, and carbohydrate chemistry with DuPont's biotechnology, chemistry, materials and applications expertise, all backed by a strong joint intellectual-property portfolio.

"This molecule is a game-changing platform technology. It will enable cost-efficient production of a variety of 100 percent renewable, high-performance chemicals and polymers with applications across a broad range of industries," said Simon Herriot, global business director for biomaterials at DuPont. "ADM is an agribusiness powerhouse with strong technology development capabilities. They are the ideal partner with which to develop this new, renewable supply chain for FDME."

One of the first polymers under development utilizing FDME is *polytrimethylene furandicarboxylate* (PTF), a novel polyester also made from [DuPont's proprietary Bio-PDO™ \(1,3-propanediol\)](#). PTF is a 100-percent renewable and recyclable polymer that, when used to make bottles and other beverage packages, substantially improves gas-barrier properties compared to other polyesters. This makes PTF a great choice for customers in the beverage packaging industry looking to improve the shelf life of their products.

“We are excited about the potential FDME has to help our customers reach new markets and develop better-performing products, all made from sustainable, bio-based starting materials,” said Kevin Moore, president, renewable chemicals at ADM. “With their strong leadership in the biomaterials industry, DuPont is a great partner that can help us bring this product to market for our customers.”

ADM and DuPont are taking the initial step in the process of bringing FDME to market by moving forward on the scale-up phase of the project. The two companies are planning to build an integrated 60 ton-per-year demonstration plant in Decatur, Ill., which will provide potential customers with sufficient product quantities for testing and research.

For more information about this project, please visit: [click here](#).

For more than a century, the people of Archer Daniels Midland Company (NYSE: ADM) have transformed crops into products that serve the vital needs of a growing world. Today, we’re one of the world’s largest agricultural processors and food ingredient providers, with more than 33,000 employees serving customers in more than 140 countries. With a global value chain that includes more than 460 crop procurement locations, 300 ingredient manufacturing facilities, 40 innovation centers and the world’s premier crop transportation network, we connect the harvest to the home, making products for food, animal feed, industrial and energy uses. Learn more at [www.adm.com](http://www.adm.com).

DuPont Industrial Biosciences works with customers across a wide range of industries to improve products and make processes more sustainable. Through a unique combination of biotechnology, chemical and material science capabilities, we’re focused on providing market-driven, biobased solutions to meet the needs of a growing population, while protecting our environment for future generations.

**DuPont** (NYSE: DD) has been bringing world-class science and engineering to the global marketplace in the form of innovative products, materials, and services since 1802. The company believes that by collaborating with customers, governments, NGOs, and thought leaders we can help find solutions to such global challenges as providing enough healthy food for people everywhere, decreasing dependence on fossil fuels, and protecting life and the environment. For additional information about DuPont and its commitment to inclusive innovation, please visit [dupont.com](http://dupont.com).

**Forward-Looking Statements:** This document contains forward-looking statements which may be identified by their use of words like “plans,” “expects,” “will,” “believes,” “intends,” “estimates,” “anticipates” or other words of similar meaning. All statements that address expectations or projections about the future, including statements about the company’s strategy for growth, product development, regulatory approval, market position, anticipated benefits of recent acquisitions, timing of anticipated benefits from restructuring actions, outcome of contingencies, such as litigation and environmental matters, expenditures and financial results, are forward looking statements. Forward-looking statements are not guarantees of future performance and are based on certain assumptions and expectations of future events which may not be realized. Forward-looking statements also involve risks and uncertainties, many of which are beyond the company’s control. Some of the important factors that could cause the company’s actual results to differ materially from those projected in any such forward-looking statements are: fluctuations in energy and raw material prices; failure to develop and market new products and optimally manage product life cycles; ability to respond to market acceptance, rules, regulations and policies affecting products based on biotechnology and, in general, for products for the agriculture industry; outcome of significant litigation and environmental matters, including realization of associated indemnification assets, if any; failure to appropriately manage process safety and product stewardship issues; changes in laws and regulations or political conditions; global economic and capital markets conditions, such as inflation, interest and currency exchange rates; business or supply disruptions; security threats, such as acts of sabotage, terrorism or war, natural disasters and weather events and patterns which could affect demand as well as availability of products for the agriculture industry; ability to protect and enforce the company’s intellectual property rights; successful integration of acquired businesses and separation of underperforming or non-strategic assets or businesses; and risks related to the agreement entered on December 11, 2015, with The Dow Chemical Company pursuant to which the companies have agreed to effect an all-stock merger of equals, including the completion of the proposed transaction on anticipated terms and timing, the ability to fully and timely realize the expected benefits of the proposed transaction and risks related to the intended business separations contemplated to occur after the completion of the proposed transaction. The company undertakes no duty to update any forward-looking statements as a result of future developments or new information.

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