

DuPont's and Tate & Lyle at 10; a partnership "grown past what was previously imagined."

By Emily O'Dowd, [Bio-Based World News](#).

It is often the case that Bio-Based World News reports newly launched partnerships, but today we focus on one between DuPont and Tate & Lyle that is celebrating its tenth birthday. DuPont is a long established chemical company, whilst Tate & Lyle specialises in ingredients and solutions for the food and beverage industries; perhaps most famous for their



Fairtrade sugar. It was ten years ago this month that DuPont Tate & Lyle Bio Products announced the first commercial shipments of a breakthrough biomaterial, bio-based 1,3-propanediol. Four years later it announced an expansion increasing capacity by 35 percent at its facility in Loudon, Tennessee (pictured right). Today with thousands of customers around the globe and products in most major consumer and industrial market segments, DuPont Tate & Lyle celebrates a decade of offering higher-performing ingredients from a petroleum-free, sustainable and renewable source.

"This joint venture started as a revolutionary innovation project that applied the tools of modern biotechnology to make high-performance biomaterials in a much more sustainable way than traditional petro-chemistry," stated Michael Saltzberg, global business director of biomaterials for DuPont. "Its track record of success has inspired the academic and industrial science community around the world to invest in industrial biotech and is a case study of how to successfully innovate in this space."

Twenty years ago DuPont became one of the first companies to lead with their environmental incentives. Sustainability is a crucial factor for the company with their ambitions to build a secure energy source for the future in global markets. Tate & Lyle is a British brand, who were originally a sugar refining business but in the 1970s they began to diversify using new technology to convert raw materials into new ingredients for the food and beverage industry. They market a Fairtrade certified product in organic and natural sugars and now operate in over 30 countries across the world. Earlier this year it was reported that their sales reached £2.4 billion.

By bringing together the unrivalled track record of DuPont's research and development with Tate & Lyle's industry-leading fermentation expertise, scientists and engineers from this joint venture developed a proprietary process that uses plant-based feedstocks to produce bio-based 1,3-propanediol. Today the joint venture provides solutions for a wide variety of markets and applications through its bio-based performance brands **Susterra** and **Zemea** propanediol in addition to Bio-PDO, the key ingredient for DuPont Sorona high-performance polymers.

It all started in 2000 when DuPont ([@DuPont_News](#)) alongside Genencor developed a patent process to create 1-3 propanediol using plant-derived starch instead of petroleum. Then in 2004, it was announced that DuPont and Tate & Lyle ([@TateLyleSugars](#)) would be entering a joint venture which would see the investment of \$100 million to commercialise a new high-performance, renewably sourced biomaterial as an alternative to petroleum based products. The joint venture now serves thousands of customers around the world with products in most prominent consumer and industrial markets.

"Our partnership with DuPont is a great example of bringing the best of two organizations together to create a first to market product and process that continues to demonstrate versatility and functionality in the global marketplace," said Greg Wendt, vice president and general manager, industrial starch and bioventures, Tate & Lyle. "We are proud of the success we've built together and share our congratulations with our DuPont partners and the DuPont Tate & Lyle teams around the world for achieving a decade of great work and continued innovation."

Since 2006, DuPont Tate & Lyle offer high performing ingredients from a petroleum free, sustainable and renewable source. Whereas most everyday consumer and industrial products are still made using non-renewable resources, such as petrochemicals. But the overuse of these finite resources is highly unsustainable. This has inspired the joint venture to produce two main chemicals. [Susterra](#) propanediol is a pure, bio-based, petroleum-free diol. It is an effective polyol or chain extender that gives manufacturers flexibility when developing high-performing, bio-based solutions. The substance can be detected in polyurethanes, engine coolants, de-icing fluids as well as solar and geothermal systems. Secondly, [Zemea](#) propanediol is the multifunctional, preservative-boosting humectant and ingredient that delivers a high performance for a variety of consumer applications, from cosmetics and personal care to food, pharmaceuticals, laundry and household cleaning.

