

# POST EVENT REPORT



## 4<sup>th</sup> StarchWorld EUROPE

16 - 18 Oct 2019 / Copenhagen, Denmark

The **4th Starch World Europe**, held between October 16th to 18th in **Copenhagen, Denmark**, focused heavily on how emerging technology in the starch industry may solve future problems related to the environment and nutrition and how these themes are at the cutting edge of industry developments. Of particular interest was:

- *The regulatory environment affecting EU producers*
- *The emergence of clean label modified starch and protein by-products as the two main revenue streams driving profitability today, not to mention a shift towards plant protein*
- *The re-emergence of the paper industry as an important end use market for starch and the possibility that renewable plastics developed from starch will be increasingly viable*
- *The development of CRISPR-Cas9 technology as an effective way to develop new starch varieties in crops and the possibility that plant based proteins may be fermented from carbohydrates in the future*

The conference kicked off with a review from Starch Europe, the industry association, providing updates across the regulatory spectrum but with a focus on emerging legislation supporting production of bio-based products from starch and the development of plant based proteins. Against these positive developments, the regulators are also rolling back the use of certain pesticides and encouraging new breeding techniques, developments which concern the industry if they have any immediate impact on crop productivity.

This led into several presentations explaining the growing value of protein by-products to the starch industry and how in the future proteins may be extracted from starch crops not indirectly, as by-products, but directly through the fermentation of starch raw materials. This was one vision of how the industry might look in the future and it cemented the idea that plant based proteins is a growth sector that will likely become much more important.

The conference then turned to more starchy subjects reviewing industry developments that suggest clean label is both a leading source of profit for the industry and a tricky path to navigate as it calls into question some well-established chemical starches. The EU starch industry also faces a productivity problem in that grain yields seem to be underperforming key competitors, which is why the legislation surrounding pesticides and new breeding techniques is so critical.

A potential solution to these issues is emerging with CRISPR technology which holds out the potential of producers developing high value, clean label starches directly in crops through selective breeding. The regulatory environment for these products is being debated but the hope of the EU industry is that it will be allowed to compete on a level playing field with the latest technologies that can produce both safe and healthy products efficiently. On efficiency, we also learned how the industry increasingly processes every aspect of what was previously considered to be waste and how diverse flour based products extend the clean label spectrum of starch products. Flours can provide a cost effective solution for the food industry in applications that require a starchy ingredient. The final day closed with an interesting examination of how the starch industry can solve the drive for sugar reduction in food with its products and also how hard it is to achieve further reduction in sugar content without raising overall calories.

The second day began with an exploration of both the paper and plastics industries as outlets for starch. While the paper industry may currently be under pressure from digital technologies reducing demand for printing paper, there are emerging growth sectors for starch as the packaging industry picks up speed. Moreover, looking to the future, there is the possibility that a wide range of recyclable packaging made from paper could replace both tin and glass. This led into a very interesting discussion of how the plastics industry is finally developing bio-based products from starch that can compete with conventional plastics. These products are fully compostable and point to a much greener future. The conference concluded with some unusual scientific insights into the way people taste starchy products and how the industry that is emerging in Africa may offer up a whole new range of starches from African crops.

It seems that the starch industry is responding well and with great innovation to some of the major challenges of our times: to produce green and recyclable products that are at the same time healthy and efficient in their demands on the earth's resources.

*Simon has over 20 years of experience analysing and understanding commodity markets and in particular the starch industry. As a well-known industry consultant for much of his career he has advised multinational agribusinesses, energy and chemical companies on their raw material purchases, processing and operations as well as government bodies focused on reform of grain related markets.*



*As a Vice President of Olam International in Singapore, Mr Bentley led the research for a commodity fund and was actively involved in the day to day fundamentals of commodity trading. In 2015 he established Commodity in Singapore as a vehicle to provide advice to the international grain and starch industries.*

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