The Arctic Apple

An Interesting Case for the Global Fruit Sector

While the US media have been solidly focused on politics, the developments around the market trials of the Arctic Apple have gone largely unnoticed. This genetically modified (GM) apple will hit the shelves of ten selected stores in the US Midwest in early February. If successful, it could trigger a new wave of innovation in the fruit sector.

Pictured above: a conventional apple (left) compared to the Arctic Apple (right)—photo supplied by Okanagan Specialty Fruits.

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The Arctic Apple is one of the first GM products with clear consumer benefits instead of grower benefits. The apple is non-browning and therefore will be sold pre-sliced, without any added non-browning solution. On top of that, its appealing look should reduce waste and tempt consumers to eat more, according to Okanagan Specialty Fruits, the company that developed the apple.

Are these benefits sufficient to make the Arctic Apple a commercial success? Organic, ‘clean label’ and natural foods—regardless of what those terms actually mean—are thriving, while GM foods are under fire. Consumers are sceptical when it comes to GM food, despite the fact that it already constitutes part of their daily diets in the form of GM food ingredients and animal feed.

Institutions like the World Health Organisation have stressed that there are no health risks related to human consumption of GM food. Nevertheless, various leading US food brands have announced they will ban GM ingredients from their products following pressure from GM opponents. Will the Arctic Apple meet the same fate? When the Innate Potato, developed by JR Simplot, was approved for the US market, McDonald’s announced that it would not sell fries made from this potato. But the spud has consumer benefits too—it reduces the potential for the formation of acrylamide (a probable human carcinogen), according to Simplot.
To win over consumers, Okanagan is putting a lot of effort into marketing the apple. If the apple doesn’t turn out to be a success, it is not for a lack of openness. The Arctic Apple packs have QR codes which lead consumers to information regarding the development of the apple, and the websites of the Arctic Apple and Okanagan also contain plenty of information, mentioning, for example, that the technique of ‘gene silencing’ is used to reduce the expression of the enzyme responsible for browning.

Whichever way you look at it, the introduction of the Arctic Apple is a fascinating case for biotechnology companies and breeders, as well as the complete fruit sector. At its core, it’s about whether US consumers will accept the apple or not, which should become clear soon. If the Arctic Apple opportunity proves fruitful, it could open doors for many other innovations. Product innovation is, and will continue to be, a key success factor in the competitive fruit market, especially in high-cost production countries.