

NOVELQ project

Fresh taste, less waste

Developing new processing technologies to keep food fresh over a longer period and in doing so minimising waste. This is one of the major achievements of the European Research project NovelQ supported under the Sixth Research Framework Programme (FP6) by €11.3 million to be completed in February 2011.

In today's fast-paced world, we sometimes lack the time to shop for fresh food on a daily basis. This is one reason why people increasingly shop at irregular intervals. The result of this new habit is increased waste; each year, several million tons of food are discarded in Europe. Reducing food waste has thus become a major concern and not just about edible food thrown away: wasting food costs money and has serious environmental implications. While consumers can do much, the responsibility also lies with the food industry. Ways to reduce waste throughout the production and supply chain must be found.

In this perspective, NovelQ aims mainly to develop new processing technologies to keep food fresh over a longer period of time. Europe already has a competitive position based on expertise, patents and pilot-scale facilities in this area.

To this end, it applies existing — but not yet widely applied — methods such as high pressure, pulsed electrical fields, cold plasma, advanced heating technologies and new packaging concepts, which are sustainable and eco-friendly. Key emphasis is put on solid and liquid plant-based products, including carrot, tomato, strawberry, apple and broccoli. In addition, whole meals are taken into account in the applied research and demonstration activities.

The introduction onto the market of high pressure pasteurised juices, the development of a demonstrator for surface disinfection by cold plasma, an extended shelf-life for orange juice by pulsed electric fields, etc. are only a few of the concrete results achieved by the multi-disciplinary NovelQ project consortium after four years of research.

The project also aims at a comprehensive knowledge base by responding to consumer's demands for food with fresh characteristics that contribute to health, convenience and well-being, while trying to better understand bottlenecks and opportunities of the novel processing technologies as regards their application in the industry. In this perspective, 35 partners, amongst which food manufacturers, equipment suppliers and knowledge centres, have joined forces. Over 70 industries have become members of the Industry Advisory Platform set up within NovelQ project consortium to help exploit and promote results as well as to disseminate best practices in countries.

The expected impact of NovelQ is thus multiple as it addresses solutions to major challenges faced by our society: developing eco-friendly innovative processing technologies in the area of food preservation which represent a wealth of new scientific and business opportunities while being a stimulus to innovation at the cross-sector of food manufacturing and equipment suppliers, especially driven by SMEs.

Contact:

Ariette Matser, NovelQ Project Coordinator
Wageningen UR – Agrotechnology & Food Innovations
Email: ariette.matser@wur.nl