

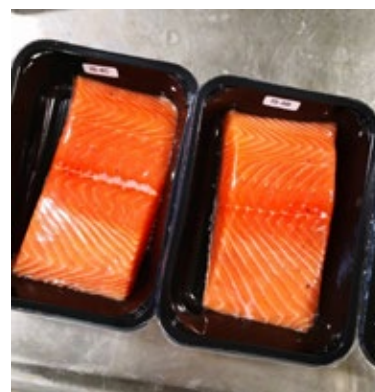
Quality and safety of aquaculture products – novel packaging solutions

Food packaging is a vital process that protects and preserves the food and at the same time reduces food waste. Proper packaging is a part of the widely used 'hurdle technology' which is a method of ensuring food safety by decreasing or controlling undesired bacteria. There is an increasing demand for seafood that is minimally processed. The need of mild processing technologies resulted a take-off of more innovative processing technologies. Some examples are high pressure, cold plasma, superchilling, pulsed electric field and ultraviolet light.

FutureEUAqua researchers has investigated several novel methods of seafood processing, packaging and quality control that contributes to more efficient and sustainable European aquaculture industry.

Challenges

Food waste and losses have a great impact on easily perishable products such as seafood. These types of food require more effective packaging to reduce food waste through extended shelf-life. Tailor-made methods for each food category are part of the solution. It is important to have the ability of monitoring the impacts of different production conditions, explore novel processing methods and to maintain the low levels of chemical preservatives in aquacultured seafood.



Photos: Sherry S. Chan, Nofima

Actions

- The industry needs quick and easy quality control using accessible methodologies. The FutureEUAqua project researchers have used isothermal calorimetry as a novel and valuable tool to accurately evaluate the effectiveness of the seafood preservation.
- FutureEUAqua has tested a new promising packaging method combining superchilling with modified atmosphere or vacuum skin. The tested method resulted the same salmon fillet quality as the conventional but with a considerably extended shelf-life using less plastic material.
- There is a possibility to use the valuable part of the by-products of fishery as natural preservative. This sustainable solution transforms waste into food products. FutureEUAqua proved that a component of shrimp shell used as an edible coating increased the shelf-life of fishballs made from trout rest raw material.



Read more on www.futureeuaqua.eu

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