GELX: COATING

EDIBLE BIOMATERIAL THAT PROLONGS FRESH FOOD'S SHELF LIFE (FRESH MEATS AND FRUITS).

UA M0016

MARKET

As an example, one of the target markets for this coating is the fresh salmon exportation market, due to the need to extend shelf-life because of the long transportation time. During 2016, Chile exported 32,384 tons of fresh salmon (29.4 million kg). If the use of the product is extended to the exportation of other types of fresh meat such as beef, pork, poultry and other fish, the market size would be of approximately 7.8 million tons annually (25.05% of total meat exportations, 2014). .

UNMET NEED

There is a need to prolong the optimal state of fresh meat (fish, bovine or porcine) for consumption due to the long transportation and distribution processes, and product display in the gondola. The travel time factor is critical and, to a large extent, conditions the quality of the final product, as small variations in travel time could mean great economic losses for the company. Also, in the specific case of salmon, the exportation of low quality products could cause significant damage to the country image. Similarly, there is a growing need to extend the shelf life of other meat products.

SOLUTION

Edible coating based on modified gelatin that extends the shelf-life of fresh fish fillets, and the design of an in-line spray application system for the administration of the coating under continuous process conditions. The coating is edible and imperceptible to the taste, vision or smell. In addition, it delays microbial growth and retains product moisture. The coating has potential use in other meat products.

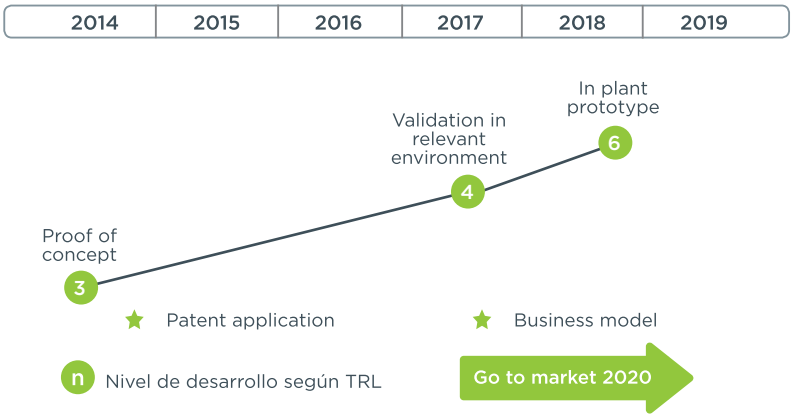
ADVANTAGES

> Low cost.
> Application may be in plant and / or by distributors.
> Extends shelf-life of salmon fillets.
> Anti-microbial activity.
> Preserves the products' wet weight.
> Edible.
> Does not affect the organoleptic properties of the fish.
> Does not contain raw materials of mammalian origin.

INTELLECTUAL PROPERTY

Provisional patent filed.

STATE OF DEVELOPMENT



BUSINESS SUMMARY DEPARTMENT OF INNOVATION

The Dirección de Innovación of the Universidad de los Andes seeks to support, canalize and efficiently manage the results from research conducted at the University to the public and private sector, both national and international. This is done in order to promote the transfer and application of the knowledge generated in the University so as to benefit the society and contribute to the economic development.

INNOVACION.UANDES.CL

PROJECT DIRECTOR

Javier Enrione Cáceres, food engineer, master and Ph.D. in food science and post doc in business administration.

> His research focuses on the characterization and design based on natural polymers, with applications in the food, pharmaceutical and biomedical industry.

RESEARCH TEAM

Paulo Díaz, Ph.D.

CONTACT

Anil Sadarangani, MBA, PhD
T: +56 2 2618 2102
E: anils@uandes.cl