



Aquisost - Aquaculture sustainability and resilience through nutritional strategies

Objective

To evaluate the quality of the final product from trout fed insect meal and to assess its perception and acceptance by consumers.

Materials and Methods

Fillets from trout fed four experimental diets (control, 30%, 60%, 100% insect meal) were first evaluated by 7 experienced panellists using the QDA® method to assess whether there were sensory differences among products, and subsequently by 116 consumers and retailers to evaluate both consumer perception and acceptance of the diets developed with insect meal.

Conclusions

Although first blind and then informed tasting reported no differences, consumer quality expectation as to products from fish fed insect meal rather than usual meals (e.g., from crustaceans or eggs) was lower. Consumers confirmed that they were uninformed about the properties of these flours but, despite this, believed that they would not be as good in flavor and quality, as well as being unsafe for health and more expensive. In fact, the willingness to buy and pay for these products were lower for «insect-based» products than for control (fish meal).

Future Proposal

To implement studies on the profile of consumers who are most likely to buy «insect-based» products to understand their main drivers and barriers, such as neophobia, related to the Western consumers' acceptance of these foods, to be sure that all feed research, in the future developed with more sustainable alternative proteins, does not negatively affect product quality, which should be a prerequisite, and can be implemented without market repercussions.

Period Abroad/at Company

November 2022 / June 2023
at the Institute of Agrifood Research and Technology - IRTA Monells, Spain

