

Quality of edible insects seen by Belgian academics

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In Belgium, as everywhere in Europe, edible insects are not yet introduced in food habits. Edible insects must reach a certain level of quality to be accepted as food by European people. Quality is defined as ‘the requirements necessary to satisfy the needs and expectations of the consumer’. In the case of food, quality is divided into five dimensions: safety (i.e. hygienic quality), health (i.e. nutritional quality), satisfaction (i.e. organoleptic quality), service (i.e. functional quality) and society (i.e. symbolic quality). Each dimension has a variable importance depending on the consumer and the food. A study was conducted in Gembloux (Belgium) at Gembloux Agro-Bio Tech – University of Liège (GxABT). 475 respondents (mean age: 27.62±11.45 years old) took part in the online survey voluntarily. This survey aimed to collect general information about entomophagy (e.g. consumer acceptance, experience of eating insects, etc.) and to define the most important quality dimension relative to entomophagy. This study was also an opportunity to challenge the questionnaire which is the initial version of a questionnaire for further studies. More than 60% of academics from GxABT stated they would be willing to eat edible insects and they have already experimented insect eating. Most respondents knew where they could buy this food, mainly on the Internet or in store. Concerning the quality of food, health was considered as the most important dimension followed by society and satisfaction. In other words, respondents wanted to eat a healthy food with edible insects.

Insect-based feed for aquaculture products: an investigation of Italian consumers level of consciousness and acceptance

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Consumers' interest in sustainability and the environmental impact of food production is becoming increasingly important for their consumption choices. The combination of these two factors prompted the sector of aquaculture to find more sustainable alternative sources for animal feeding as a possible action to mitigate environmental impact of this sector. Insects have already proved to be a valuable alternative source to common feed in aquaculture. However, fish farmed with insects is still perceived as an unconventional product. In addition, the investigation on consumer behaviour on animal origin products fed with insect-based feed is still in its infancy. But is the Italian consumer truly ready for this innovation? This study aimed to understand Italian consumers' attitudes towards the new trends of fish fed with insect-based feed. An online survey was conducted between January and March 2021; it was web-programmed using Google Forms and developed in the Italian language. The survey was completed by 209 Italian consumers aged 18-75 (49% male). Data on consumers' diet, purchasing habits and awareness degree of topics regarding fish diet, feed quality, sustainability, and food neophobia were collected. The final dataset was analysed using descriptive statistics methods. The effect of diet, neophobia, attitude towards sustainability, purchasing behaviour, knowledge about aquaculture sector, age, and gender on the importance consumers give to the quality of feed, the climate change, buy more sustainably and to the sustainability of insect-based feed was estimated by ANOVA one-way models. The higher is level of consciousness concerning the variables analysed, the higher is the willingness to buy and eat innovative products. A higher knowledge degree can also be found in younger and female consumers who pay more attention to the quality of feed and the environmental impact of its diets. The test sample seems to be ready for this innovation but needs proper information.