

Advisory Committee on Novel Foods and Processes ACNFP/78/2

ICE STRUCTURING PROTEIN PREPARATION – Additional information

Questions are raised about the design of tests on which the novel ice-structuring protein was judged to be safe for human consumption in ice cream. No specific toxicity information is presented.

The paper records the substantive points made in response to a consultation concerning ice structuring protein (type III). The protein is a fermentation product from GM yeast. In the wild, the protein is only found in one kind of arctic fish, where it acts as an anti freeze. In ice cream it helps reduce the size of ice crystals thereby improving the texture.

Respondents point out the required testing would not be sufficient to identify immunogenic toxicity and that given that millions of people would be exposed, testing should be of a higher standard. Results of tests on fish derived proteins are not relevant as there are substantial chemical differences between the fermentation product and the protein obtained directly from fish.

The protein is already in use in ice cream in Australia, New Zealand and the USA.

Comment

The manufacturer points out that exposure via the consumption of ice cream will be less than one thousandth of that required to produce any affect on animals. It would seem there have been no long term studies and that where the product is on the market there is no specific labelling hence no possibility of making a link with observed adverse health effects.

