
Queensland Health

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File Ref: QCHO/2531 part 1

28 April 2012

Standards Management Officer
Food Standards Australia New Zealand
PO Box 7186
Canberra BC ACT 2610

Dear Sir / Madam

Submission – Application A1045 – Bacteriophage preparation P100 as a processing aid

Thank you for the opportunity to provide a submission on the 2nd Call For Submissions for Application A1045.

This submission provides technical advice and comments related to this issue. It was prepared with advice from other relevant Queensland Government agencies, including Safe Food Production Queensland (SFPQ), Queensland Health Forensic and Scientific Services and the Queensland Government Department of Agriculture, Fisheries and Forestry. The submission does not represent a Queensland Government position, which will be a matter for the Queensland Government when notification is made by the FSANZ Board to the Legislative and Governance Forum on Food Regulation.

SFPQ has concerns regarding the use or potential misuse of Listex P100 and therefore would like the following matters addressed when progressing the Application.

- Both the Food Standards Code and State and Territory food legislation are based on the philosophy of good manufacturing practices (GMP) and sound hygienic practices to eliminate pathogens in processed or manufactured foods, such as cheeses and ready-to-eat meats. The use of P100 undermines this approach by using a 'quick fix' to endeavour to eliminate *Listeria monocytogenes* from products, which may provide a false sense of security. In addition, if the requirements of the Code and State legislation are complied with there should be no reason to use P100.
- As a surface treatment the use of P100 would not effectively treat the internal parts of products such as cheeses or smoked fish products and would not overcome contamination of products which undergo post-treatment or processing such as the slicing of primal meats such as leg ham. This once again raises the question of what value P100 would play in the food supply chain.

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- In relation to the analytical issues raised in the previous Queensland Government submission, input from the proposed new Expert Advisory Group for analytical methods is required prior to the finalisation of this application to ensure that the use of P100 does not create issues for regulators regarding the monitoring and enforcement of provisions of the Food Standards Code as they apply to *Listeria*. For example, if *Listeria innocua* is used in production of Listex P100 and present in the bacteriophage preparation and is then transferred to the treated food, *Listeria* spp. may be detected in the food when *Listeria monocytogenes* is not present. This would result in additional costs to both businesses and government due to the need to identify the strain of *Listeria* and potentially with-hold product from sale or recall product. Other analytical issues which may need to be considered by the Expert Advisory Group for analytical methods were outlined in our last submission, which is attached.
- It is noted that the NSW Food Authority have raised an issue regarding ready-to-eat (RTE) products where liquid may occur in the pack (e.g. deli meats with exudate/purge/cook-out liquid) and that the draft amendments to the Code would only permit the use of P100 "if foods are solid and not wholly or partly covered in liquid". Such a definition is open to interpretation as many RTE meats and other products exude liquid but may not be considered to be 'covered' or 'partly covered' with liquid. In such instances P100 could be viewed as an additive rather than a processing aid.

In regard to the proposed variations, consideration could be given to including an editorial note in Standard 3.2.2 that 'ready-to-eat food' is defined in Standard 1.1.1. The proposed editorial note in relation to what is solid, may need revising to clarify the application of the requirement to foods that are temperature sensitive in relation to how solid they are, such as soft cheeses and some frozen products.

In our previous submission, a comment was included that the use of bacteriophages in the production of food is a new technology in Australia and health professionals such as environmental health officers, food safety auditors and microbiologists may not be aware of important food safety and analytical issues related to the technology. We agree one solution would be to place relevant information on the FSANZ website. However, strategies to communicate and promote this to relevant professionals should also be considered.

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1 November 2011

Standards Management Officer
Food Standards Australia New Zealand
PO Box 7186
Canberra BC ACT 2610

Dear Sir / Madam

Submission – Application A1045 – Bacteriophage preparation P100 as a processing aid

Thank you for the opportunity to provide a submission on the 1st Assessment Report for Application A1045.

Queensland Health has consulted with other relevant Queensland Government agencies on this proposal, including Safe Food Production Queensland and the Agriculture, Food and Tourism Group of the Department of Employment, Economic Development and Innovation. As a consequence, Queensland Health as lead agency in Queensland for coordinating policy advice relative to the national policy on food regulation, submits the following comments.

Control of *Listeria monocytogenes* is an important public health issue that has proven to be difficult for the food industry to effectively control. The introduction of new hurdle technology such as bacteriophages could potentially be an important development that may help prevent cases of listeriosis. However, there are a number of concerns we wish to raise in relation to this Application.

The use of bacteriophages in production of food will be a new technology in Australia. Since there are potential public health issues associated with its use, public health professionals such as environmental health officers, food safety auditors, and microbiologists will need to be advised of any issues this new technology may present. These include:

- mechanisms for pathogens to develop resistance to the phages and how this may be reduced
- issues related to screening and monitoring of host susceptibility, particularly in relation to food safety programs and auditing
- new control points and related corrective actions
- factors that may affect the efficacy of the treatment
- whether samples of bacteriophage treated foods need to be handled differently, for example, retention time, holding temperature, sample packaging, exposure to light, etc
- any potential for contamination of bacteriophage solution during use, for example with other pathogens, thereby contaminating treated food

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- testing methodology
- whether there is a need for any additional precautions to minimise cross contamination in laboratories.

It is unclear in the 1st Assessment Report whether the bacteriophage could be incorporated within non-liquid ready-to-eat foods during their production, such as cheese, as opposed to a spray or dip immediately prior to packaging. If the proposed permitted use is to be limited to a surface treatment only, this will need to be clearly described in the draft variation to the *Australia New Zealand Food Standards Code*.

Given this Application is dealing with new technology for Australia, there are a number of analytical issues which may require expert advice from an enforcement perspective. This may include: analytical methodology in relation to treated food products including different food matrices, availability (for example publication) of appropriate analytical methods, determining resistance of *Listeria monocytogenes* to the bacteriophage, testing of environmental swabs for the bacteriophage and other related analytical and sampling issues. The proposed expert analysis advisory group on analytical issues will need to consider such issues.

Further to the recommended specifications for the P100 bacteriophage preparation as shown in Section 6.5 of the 1st Assessment Report, should the specification include:

- it is free of indicator organisms such as *Escherichia coli* and common food-borne pathogens such as *Salmonella spp.* and *Staphylococcus aureus* as well as *Listeria spp*
- list the number of viable bacteriophages per mL
- other physical properties?

Before Queensland Health is willing to accept that the proposed use meets the requirements for classification as a processing aid as opposed to a food additive, we would like the 2nd Assessment Report to provide more explicit evidence that there is no ongoing technological function of the P100 bacteriophage in non-liquid ready-to-eat foods.

Should you have any queries regarding this submission, I will be pleased to assist you and can be contacted on telephone (07) 3328 9310.

Yours sincerely

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