

23 May 2012

The Project Officer
Application A1068
Food Standards Australia New Zealand
P.O. Box 10559
The Terrace
Wellington 6036
New Zealand

Dear Sir / Madam

In answer to your query concerning the technological function of the mechanism by which hydrogen peroxide maintains a stable pH as proposed in application A1068:

It has been observed that addition of hydrogen peroxide, at the described concentration, reduces the viable starter population by approximately 2 log cycles. Due to the limitations of recovery methodology this reduction may be due to sub lethal damage, cell inactivation or more probably a combination of the two. The reduction in recoverable starter population results in a stabilisation of pH. However it should be noted that the starter population recovers after the addition of the hydrogen peroxide. For example, after approximately 12 hours, the viable cell numbers of starter bacteria have reached a point where the amount of lactic acid being produced will begin to reduce the pH again.

We accept that there may be inconsistency within our document in this area and in order to clarify the situation propose that the underlined phrases could be replaced with the text in red font as below:

The first paragraph under Section 2 "Purpose of the Application" on page 4 of the dossier contains the sentence:

"...We seek approval to use hydrogen peroxide as a processing aid to control and maintain, viable populations (control viable populations) of starter bacteria allowing the maintenance of a stable pH..."

In the second paragraph of the same section there is a sentence that reads "...Fonterra maintains that the use of hydrogen peroxide envisioned in this application is solely intended to control viable starter metabolism, (control viable starter populations) thereby holding the pH of a fermented dairy ingredient at a set, finished value..."

And on page 5 "...Treating the fermented dairy ingredient with sub-lethal concentrations of hydrogen peroxide effectively prohibits further acid production by the starter (controls viable starter populations and in so doing stabilises pH of the material) ..."

I trust this assists your query, but please let us know if further discussion would be helpful.

Regards



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