codex.contact@agriculture.gov.au **20/01/2017**

**Comment from Food Intolerance Network on CX/FA 17/49/12 Proposed Draft Revision to the International Numbering System (INS) for Food Additives (CAC/GL 36-1989)**

I wish to make comment on elements of the Proposed Draft Revision on behalf of the Food Intolerance Network (FIN), which has 12,378 current members and so is probably the largest consumer organisation focussed on food in Australia.

The comment is from the point of view of consumers on proposed deletion of:

- amylases (INS 1100 i, ii, iii, iv, v, vi) , proteases (INS 1101 i, ii, iii, iv, v, vi) and lipases (INS 1104)

and

- nisin (INS 234) and pimaricin, natamycin (INS 235) because they are antibiotics and could not be used as food additives.

**Comment on enzymes**

The Australian Food Standards Code currently lists these enzymes

- 1100 a-Amylase
- 1101 Proteases (papain, bromelain, ficin)
- 1102 Glucose oxidase
- 1104 Lipases
- 1105 Lysozyme

There is a world-wide trend by the food industry to reduce additives shown on the Ingredients Panel because up to 80% of consumers are concerned about what is in their food (Ref 1). One strategy is to have current additives reclassified as 'processing aids' so that they do not appear on the panel. However as consumers we want to know if these additives have been used in the food because they alter the composition of the food in ways that may affect certain people.

A practical example of the problem is that some existing permitted proteases increase the levels of free glutamates to levels that affect sensitive individuals. At present the use of these proteases must be declared because they are additives, so consumers can make an educated guess about free glutamates and avoid foods containing them if necessary. If they are deleted as permitted additives but are still used in foods, consumers are denied this information and choice.

Therefore, in addition to supporting the scientific evidence of harm given in CX/FA 17/49/12 so that these enzymes are NOT used in food, we ask that if they are used as processing aids their use is listed on the Ingredients Panel. In other words, if they are deleted from the list of additives but their use continues 'in accordance with GMP' or in any other way, we

consumers want to know about this use.

**Comment on antibiotics**

The Australian Food Standards Code currently lists these antibiotics

- 234 Nisin (type of antibiotic)
- 235 Natamycin or pimaricin (type of antibiotic)

As consumers we support the removal of these antibiotics and have in fact urged their removal and caution in their use for the last 18 years.

Ref 1: http://www.fedup.com.au/images/stories/TheRealFoodtrend.pdf

Regards

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EXCERPT FROM:

**JOINT FAO/WHO FOOD STANDARDS PROGRAMME**
**CODEX COMMITTEE ON FOOD ADDITIVES**
**Forty-Ninth Session**
**Macao SAR, China, 20-24 March 2017**
**PROPOSED DRAFT REVISION TO THE INTERNATIONAL NUMBERING SYSTEM (INS) FOR FOOD ADDITIVES (CAC/GL 36-1989)**

**Deletion of amylases(INS 1100 i, ii, iii, iv, v, vi), proteases(INS 1101 i, ii, iii, iv, v, vi)and lipases(INS 1104)**

10. Amylases (INS 1100 i, ii, iii, iv, v, vi), proteases (INS 1101 i, ii, iii, iv, v, vi), lipases (INS 1104) are not justified for use as food additives since they fall outside the scope of the definition for food additives. These substances have no activity in final food (flour and bakery products) because the production process typically includes heat inactivation of the enzyme in order to terminate the process when the desired effect is obtained.

11. In compliance with table 3 of GSFA, amylases (INS 1100 i, ii, iii, iv, v, vi), proteases (INS 1101 i, ii, iii, iv, v, vi) and lipases (INS 1104) could be used in broad food categories in accordance with GMP. In some of these FC activity enzymes could be manifested.

12. Amylases (INS 1100 i, ii, iii, iv, v, vi), proteases (INS 1101 i, ii, iii, iv, v, vi) and lipases (INS 1104) are digestive enzymes. They have been broadly used in therapy of digestive tract diseases. However in case of systematic use of digestive enzymes with food there could be imbalance in digestive process:

- Decrease production of endogenic digestive enzyme
- Change of Michaelis constant, from which depend of enzymatic reaction rate in the digestion of food
- Violation allostiric control of enzyme activity
- Hormone imbalance which are for supervising production of digestive enzyme responsible in the human organism.

13. For example, changing quantity of lipase and amylase could lead to imbalance of endocrine function of pancreas and lowering organism tolerance into glucose. It should be noted that:

- As producers of these food additives permitted microorganisms with modified DNA
- Volumes of enzymes production and food produced with help of enzymes are constantly increased.

14. Produced by GM microorganisms enzymes could have different characteristics from enzymes elaborated in digestive tract:

- Another optimum of temperature and pH for enzyme activity
- Different enantiomeres could have different type of enzyme activity.

15. For example, the possibility of negative influence of food additive lipase (in case its use in a higher concentration) showed in:

- WHO Food Additives Series: 71, World Health Organization, Geneva, 2015, p.27-37;
- Safety evaluation of certain food additives World Health Organization, Geneva, 2012.-p.39-51;
- Safety evaluation of certain food additives World Health Organization, Geneva, 2012.-p. 51-63;
- Sixty-firstreportoftheJointFAO/WHO Expert Committee on Food Additives, WHO 2004, 15-20.

**Deletion of nisin (INS 234) and pimaricin(INS 235)**

16. Nisin (INS 234) and pimaricin (natamycin) (INS 235) are antibiotics so antibiotics could not be used as food additives. World leaders recognized the need for stronger systems to monitor drug-resistant infections and the volume of antimicrobials used in humans, animals, and crops, as well as increased international cooperation and funding. Countries reaffirmed their commitment to develop national action plans on anti-microbial resistance (AMR), based on the "Global Action Plan on Antimicrobial Resistance" — the blueprint for tackling.

17. AMR developed in 2015 by WHO in coordination with the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE)

18. Excluding nisin (INS 234), pimaricin (natamycin) (INS 235) from INS list is one of decisions which could help solve the problem of AMR.