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CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 2 **CRD 12**

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

28th Session
Washing, DC, United States of America,
12 – 16 September 2016

Comments on:

Matters referred to the Commttee by the Codex Alimentarius Commission and/or its subsidiary bodies

Comments Submitted by:

Thailand

47TH AND 48TH SESSION OF THE COMMITTEE ON FOOD ADDITIVES (CCFA) (para. 12)

Thailand would like to provide information on technological justification for the use of "stabilizer and thickener" as follows:

Use of "stabilizer and thickener" in general in fruit and vegetable juices (food category 14.1.2) and fruit and vegetable nectars (food category 14.1.3)

Stabilizers and thickeners have generally been used in fruit and vegetable juices (food category 14.1.2) and fruit and vegetable nectars (food category 14.1.3) production process, especially cloudy and pulpy juice and nectar. It can stabilize the suspension of solid particles or fruit pulp and prevent precipitation during long term storage. It can also increase viscosity of juice and improve mouth feel. However, some stabilizers and thickeners may not be justified to be used in some types of juice. Thailand is therefore of the view that it would be more appropriate to restrict the use of stabilizers and thickeners in specific sub-categories rather than to allow them to be used in parent categories and thus should be considered case by case.

In view of the above Thailand wishes to propose that the use of the following specific stabilizers and thickeners in specific sub-categories are technologically justified to include in the GSFA.

1. The use of sodium carboxymethyl cellulose (INS 466) in food category 14.1.2.1 “Fruit juice” and 14.1.3.1 “Fruit nectar”

Sodium carboxymethyl cellulose (CMC) is sodium salt of carboxymethyl ether of cellulose that has been used in wide range of food products. As the 35th meeting of JECFA (1989) established an ADI for CMC of “not specified”, it can be used in food products with no safety concern. The use of CMC as thickener and stabilizer in various types of fruit juices has been reported.

CMC is used as thickener and stabilizer in fruit juices and fruit nectars production process. In cloudy fruit juices (e.g., soursop juice, lychee juice), juices with pulp and fruit nectars which fall under food categories 14.1.2.1 “Fruit juice” and 14.1.3.1 “Fruit nectar” of the GSFA, CMC is added to aid the suspension of solid particles, fiber and fruit pulp and to avoid precipitation during storage period. It also helps to create satisfactory mouth feel and body. Distinctive properties of CMC is low pH stable and very effective in small amount. Moreover, CMC dissolves fast in cold and hot water whereas pectin is only soluble in hot water. CMC can not only improve the quality of products, but also can greatly reduce the cost of production.

2. The use of gellan gum (INS 418) in food category 14.1.2.1 “Fruit juice”, only in Chinese plum juice

Gellan gum is exopolysaccharide produced by microorganism. There is no doubt that gellan gum is safe as it has been evaluated by the 37th JECFA (1990) and the ADI “not specified” was assigned. Applications of gellan gum in several food and beverage products have been reported.

Chinese plum juice is made from hot water extraction of plum fruits with added Chinese plum pulp. The cloudy stability of Chinese plum juice is a significant concern during storage. In general, the loss of cloudiness of juice is resulted from the pulp sedimentation that is observed in juice during storage. However, the loss of cloudiness will be perceived by consumers that the juice is of poor quality

To improve the cloudy stability of Chinese plum juice for prolonged periods, gellan gum is used to suspend fruit pulp in juice. Gellan gum is an excellent gelling agent at low concentration and heat resistant. However, its efficiency is dependent on pH.

In Chinese plum juice, gellan gum provides good colloidal suspension of solid particles and fruit pulp during storage, great mouth feel and creates products with excellent appearance whereas pectin does not provide pulp dispersion appearance. Chinese plum juice with gellan gum has the uniform suspension. In contrast, Chinese plum juice with pectin shows sedimentation of Chinese plum pulp. Hence, gelllan gum is technological justified to be used in Chinese plum juice.