BRAZIL COMMENTS

Part I. Technological justifications (Items 1-6) to Matters referred from the Codex Committee on Food Additives (CCFA)

CCPFV - Electronic working group (eWG)

Brazil would like to congratulate the USA for the efforts to elaborate the recommendations on food additives applied to selected Standards on Processed Fruits and Vegetables, and to share some comments.

Item 1a. Request information on the technological justification for the use of "emulsifiers, stabilizers, thickeners" in FC 14.1.2 "Fruit and vegetable juices" and its sub-categories and FC 14.1.3 "Fruit and vegetable nectars" and its sub-categories.

Item 1a - Brazil Comment:

No comments.

Item 1b. Request information on the technological justification for the use of pectin in products under sub-categories 14.1.2.2 (vegetable juice) and 14.1.2.4 (concentrates for vegetable juice).

Item 1b - Brazil Comment/Justification:

Pectin is a natural polymer formed by linear chains of units of galacturonic acids. These molecules have the ability, when in solution and by suitable processing, to bind through hydrogen bonds, forming long and interlaced chains that confer shear strength and, in some situations, "imprison" water, helping to stabilize the solution.

Pectin has exceptional performance applied to fruit-based beverages, acting very similar to those provided by fruit solids because it is extracted from the fruit itself. Still, it maintains excellent stability when it is thermally processed by the traditional methods in the acid pH range (less than 4.5). In addition, it has unique compatibility in the sensorial aspects, without interference on the flavor or aroma of the products.

Position for 1b – pectin can be used as stabilizer and emulsifier in vegetable juices and their corresponding concentrates.

Item 1c. Request information on the technological justification for the use of xanthan gum as an "emulsifiers, stabilizers, thickeners" in FC 14.1.2 "Fruit and vegetable juices" and its sub-categories and FC 14.1.3 "Fruit and vegetable nectars" and its sub-categories.

Item 1c - Brazil Comment:

No comments.

Item 2a. Request information on the technological justification for the use of acidity regulators in FC 04.1.2.2 (Dried fruit) (not limited to standardized products)

Item 2a - Brazil Comment:

No comments.

Item 2b. Request information on the technological justification for the use of tartrates (INS 334, 335ii, 337) in FC 04.1.2.2 (Dried fruit) (not limited to standardized products)

Item 2a - Brazil Comment:

No comments.

Item 3. Request information on the technological justification for the use of tartrates (INS 334, 335ii, 337) in FC 04.1.2.6 (Fruit based spreads, excluding products in food category 04.1.2.5) (not limited to standardized products)

Item 3 - Brazil Comment:

No comments.

Item 4. Request information on the technological justification of the use of colors in French fried potatoes for the purpose of acrylamide reduction.

Item 4 - Brazil Comment:

No comments.

Item 5a. Request information on the technological justification for the use of acidity regulators in general in FC 14.1.2.1 (Fruit juice) (not limited to standardized food products).

Item 5a - Brazil Comment/Justification:

Acidity regulators at times are needed in fruit juices to standardize the acid level of the finished product due to batch and seasonality variability in the raw material (fruit juice concentrates). Also, the use of acidity regulators further lowers the pH to extend the shelf life in 100% fruit juice.

Malic acid contribute to the taste of the beverage, is considered GMP and is already allowed for fruit nectars in Brazilian legislation. In addition, malic acid is provided in CODEX with the same function for pineapple juice and also for fruit nectars. Those additives improve the

sensorial profile of acidity with characteristic notes, being important for product development applications where it is necessary to highlight the acidic notes.

Sodium Citrate and Potassium Citrate are needed to control acid perception in high acidic juices. The use of these citrates makes it possible to soften the acidic sensorial perception naturally occurring in the juices and nectars or added of acids to achieve a certain effect in the product (for example, reduction of pH with the use of acids for reasons of processing). These additives are intended as acidity regulators for non-alcoholic beverages under Mercosur.

In this way, the above justification complies with item C of section 3.2 of CODEX STAN 192-1995.

Position for 5a – malic acid, sodium citrate and Potassium citrate can be used as acidity regulators in fruit juices.

Item 5b. Request information on the technological justification for the use of calcium lactate in FC 14.1.2.1 (Fruit juice) and its use level (not limited to standardized for products).

Item 5b - Brazil Comment:

No comments.

Item 6a. Request information on the technological justification for the use of acidity regulators in general in FC 14.1.2.2 (Vegetable juice), FC 14.1.2.4 (Concentrates for vegetable juice), FC 14.1.3.2 (Vegetable nectar), and FC 14.1.3.4 (Concentrates for vegetable nectar).

Item 6a - Brazil Comment/Justification:

In general, vegetable juices have a lower sugar content than fruit juices resulting in a lower density for vegetable juices. Vegetable juices have less acid and, consequently, a higher pH than fruit juices. Therefore, the processing temperatures for vegetable juice products will be higher than fruit juice products. Moreover, acidity regulators would be justified to ensure shelf-stability of vegetable juice products. Interestingly, the proposed draft revised Codex Standard for Vegetable Juices while not endorsed for adoption by the 2003 Codex Intergovernmental Task Force on Fruit and Vegetable Juices due to limited international trade at the time, the following acidity regulators were identified: Malic acid (INS 296), Citric acid (INS 330), Tartaric acid (INS 334).

Malic acid contribute to the taste of the beverage, is considered GMP and is already allowed for fruit nectars in Brazilian legislation. In addition, malic acid is provided in CODEX with the same function for pineapple juice and also for fruit nectars. These additives improve a sensorial profile of acidity with characteristic notes, being important for product development applications where it is necessary to highlight these acidic notes.

Sodium Citrate and Potassium Citrate are needed to control acid perception in high acidic juices. The use of these citrates makes it possible to soften the acidic sensorial perception naturally occurring in the juices and nectars or added of acids to achieve a certain effect in the product (for example, reduction of pH with the use of acids for reasons of processing). These additives are intended as acidity regulators for non-alcoholic beverages under Mercosur.

In this way, the above justification complies with item C of section 3.2 of CODEX STAN 192-1995.

Position for 6a – malic acid, sodium citrate and Potassium citrate can be used as acidity regulators in Vegetable juice, concentrates for vegetable juice, vegetable nectar and concentrates for vegetable nectar.

Item 6b. Request information on the technological justification for the use of phosphates (INS 338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i)-(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii), (ix); 451(i),(ii); 452(i)-(v);542) in FC 14.1.2.2 (Vegetable juice), FC 14.1.2.4 (Concentrates for vegetable juice), FC 14.1.3.2 (Vegetable nectar), and FC 14.1.3.4 (Concentrates for vegetable nectar) and the maximum use levels needed to achieve the intended technological effect.

Item 6b - Brazil Comment/Justification:

In general, vegetable juices have a lower sugar content than fruit juices resulting in a lower density for vegetable juices. Vegetable juices have less acid and, consequently, a higher pH than fruit juices. Therefore, the processing temperatures for vegetable juice products will be higher than fruit juice products. Moreover, acidity regulators would be justified to ensure shelf-stability of vegetable juice products. In fact, phosphates may be used as acidity regulators in vegetable juices and nectars.

Phosphate ingredients can assist in improving the shelf life of beverages via a sequestration action. Additionally, the acid regulatory function of a number of phosphate ingredients can help provide a crisp sharp taste and assist in retention of intrinsic ascorbic acid. Having multiple options for phosphate ingredients for use in vegetable juices allows for greater flexibility and innovation to meet consumer demands and expectations.

Position for 6b – phosphates can be used as acidity regulators in Vegetable juice, concentrates for vegetable juice, vegetable nectar and concentrates for vegetable nectar.

Item 6c. Request information on the technological justification for the use of tartrates (INS 334, 335(ii), 337) in FC 14.1.2.2 (Vegetable juice), FC 14.1.2.4 (Concentrates for vegetable

juice), FC 14.1.3.2 (Vegetable nectar), and FC 14.1.3.4 (Concentrates for vegetable nectar) and the maximum use levels needed to achieve the intended technological effect.

Item 6c - Brazil Comment/Justification:

As indicated in Item 6a, tartaric acid (INS 334) was identified as one of several appropriate acidity regulators for vegetable juices by the Codex Intergovernmental Task Force on Fruit and Vegetable Juices. As such, this would extend to both vegetable juices and nectars and their concentrates. In general, vegetable juices have a lower sugar content than fruit juices resulting in a lower density for vegetable juices. Vegetable juices have less acid and, consequently, a higher pH than fruit juices. Therefore, the processing temperatures for vegetable juice products will be higher than fruit juice products. Moreover, acidity regulators would be justified to ensure shelf-stability of vegetable juice products.

Position for 6c – tartrates can be used as acidity regulators in Vegetable juice, concentrates for vegetable juice, vegetable nectar and concentrates for vegetable nectar.

Item 7. The eWG Chair proposes to revoke monosodium tartrate (INS 335(i)), monopotassium tartrate (INS 336(i)) and dipotassium tartrate (INS 336(ii)) from the Standard for Canned Bamboo Shoots (CXS 241-2003) since these additives have already been removed from GSFA due to lack of JECFA specification.

Item 7 - Brazil Comment:

No comments.

Item 8. The eWG Chair proposes to revoke monosodium tartrate (INS 335(i)), monopotassium tartrate (INS 336(i)) and dipotassium tartrate (INS 336(ii)) from the Standard for Jams, Jellies and Marmalades (CXS 296-2009) since these additives have already been removed from GSFA due to lack of JECFA specification.

Item 8 - Brazil Comment:

No comments.

Item 9. The eWG Chair proposes to revoke sodium sorbate (INS 201) from the Standard for Jams, Jellies and Marmalades (CXS 296-2009).

Item 9 - Brazil Comment:

No comments.