

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

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HEALTH
ORGANIZATION



JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

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**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION**

Twenty-fourth Session
Geneva, 2-7 July 2001

**REPORT OF THE FIRST SESSION OF THE
AD HOC CODEX INTERGOVERNMENTAL TASK FORCE ON
FRUIT AND VEGETABLE JUICES**

Brasilia, Brazil, 18-22 September 2000

codex alimentarius commission



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JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

CX 5/100

**CL 2000/36-FJ
October 2000**

TO : - Codex Contact Points
- Interested International Organizations

FROM : Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, FAO, 00100 Rome, Italy

SUBJECT : **Distribution of the Report of the 1st Session of the *Ad Hoc* Codex Intergovernmental Task Force on Fruit and Vegetable Juices**

REQUEST FOR COMMENTS AND INFORMATION

Proposed Draft Standards at Step 3 of the Procedure

1. *Proposed Draft Codex General Standard for Fruit Juices and Nectars* (para. 30 and Appendix II)
2. *Proposed Draft Revised Codex General Standard for Vegetable Juices* (para. 33 and Appendix III)

Governments wishing to submit comments on the above should do so in writing to the Secretary, Joint FAO/WHO Food Standards Programme, FAO, Via delle Terme di Caracalla, 00100 Rome, Italy, **before 1 February 2001.**

SUMMARY AND CONCLUSIONS

The 1st Session of the *Ad Hoc* Codex Intergovernmental Task Force on Fruit and Vegetable Juices reached the following conclusions:

MATTERS FOR CONSIDERATION BY THE 24th SESSION OF THE CODEX ALIMENTARIUS COMMISSION

The Task Force:

- Agreed to discontinue the consideration of the *Guidelines for the Labelling of Mixed Fruit Juices and Nectars* as a separate issue by incorporating it in the Labelling Section of the *Proposed Draft Codex General Standard for Fruit Juices and Nectars* and inform the Executive Committee accordingly (paras. 9, 28 and 35).

OTHER MATTERS OF INTEREST TO THE COMMISSION

The Task Force:

- Agreed to return the *Proposed Draft Codex General Standard for Fruit Juices and Nectars* and the *Proposed Draft Revised Codex General Standard for Vegetable Juices* to Step 3 for further comments (paras. 30 and 33).
- Decided to establish two drafting groups that will work by correspondence namely:
 - **Drafting Group on the Revision of the Standards** led by Brazil with the assistance of the United States as rapporteur and the participation of France, Spain, Thailand and the International Federation of Fruit Juice Producers (IFU), with a view to redrafting both Proposed Draft Standards under consideration by the Task Force, particularly those undecided provisions of the Standards, based on the written comments received at the first meeting and in response to CL 2000/36-FJ (paras. 31, 32 and 34).
 - **Drafting Group on Methods of Analysis and Sampling** led by Canada with the participation of Brazil, Spain and the IFU, aimed at revising and updating the methods of analysis and sampling for fruit and vegetable juices and nectars with a view to presenting a consolidate list at the next session of the Task Force (para. 29).

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INTRODUCTION

1. The 1st Session of the *Ad Hoc* Codex Intergovernmental Task Force on Fruit and Vegetable Juices was held in Brasilia from 18 – 22 September 2000 at the kind invitation of the Government of Brazil. The Session was chaired by Dr Luiz Carlos de Oliveira, Secretary of Animal and Plant Health Protection and Inspection, Ministry of Agriculture and Supply. It was attended by 106 delegates from 22 Member countries and 4 international organizations. The list of participants is attached to this report as Appendix I.

OPENING OF THE SESSION

2. Mr. Walter Franco, the FAO Representative in Brazil, addressed the Committee on behalf of the Food and Agriculture Organization of the United Nations (FAO). The speaker highlighted the international approach of Codex standards within the SPS and TBT Agreements of WTO as well as the establishment of the *Ad Hoc* Codex Intergovernmental Task Force on Fruit and Vegetable Juices to address issues relating the standardization of these products.

3. Remarks on behalf of WHO/PAHO were presented by Mr. Jacobo Finquelman, the WHO/PAHO Representative in Brazil. He emphasized the importance of having international standards to assure the safety of the food supply.

4. Mr Marcus Vinicius Pratini de Moraes, Minister of Agriculture and Supply, opened the Task Force on behalf of the Government of Brazil. He underlined the importance of fruit juice production in Brazil and the need to protect consumers' health while ensuring international fair trade in these products. The Minister wished the participants the utmost success in its deliberations as well as a most enjoyable stay in Brazil.

ADOPTION OF THE AGENDA (Agenda Item 1)¹

5. The Task Force adopted the Provisional Agenda as proposed.

MATTERS OF INTEREST TO THE TASK FORCE ARISING FROM THE CODEX ALIMENTARIUS COMMISSION AND OTHER CODEX COMMITTEES (Agenda Item 2)²

6. The Task Force noted matters arising from the 23rd Session of the Codex Alimentarius Commission (CAC) and other Codex Committees, including those matters arising from the most recent 47th Session of the Executive Committee of the Codex Alimentarius Commission (CCEXEC). The Task Force was informed that the document was presented for information only and that issues contained therein would be further considered when discussing the relevant agenda items.

PROPOSED DRAFT CODEX GENERAL STANDARD FOR FRUIT JUICES AND NECTARS (Agenda Item 3a)³

7. Following the decision of the Codex Alimentarius Commission that existing Codex commodity standards should be revised and simplified as much as possible, the proposed draft Codex General Standard for Fruit Juices and Nectars was prepared by the International Federation of Fruit Juice Producers (IFU) and circulated for comment at Step 3 by the Codex Secretariat.

GENERAL CONSIDERATIONS

8. The Task Force reached a general decision that in order to accurately reflect current marketing practices and similarities between the products being considered, the General Standard should include mixtures of fruit juices and mixtures of fruit nectars in addition to the proposed general provisions for fruit juices and fruit nectars.

9. In view of this decision, the Task Force agreed to include the proposed draft Guidelines for the Labelling of Mixed Fruit Juices and Nectars (agenda item 3c) as an integral part of the General Standard for Fruit Juices and Nectars under Section 7 - Labelling.

¹ CX/FJ 00/1

² CX/FJ 00/2

³ Proposed Draft Codex General Standard for Fruit Juices and Nectars (CL 2000/01-FJ) and comments submitted by Brazil, Canada, Israel, Japan, Malaysia, Poland, Singapore, South Africa, United Kingdom, USA, IFU, WPTC (CX/FJ 00/3); Argentina, Cuba, Dominican Republic, Egypt, New Zealand, Spain, Uruguay (CX/FJ 00/3-Add. 1); Italy (CX/FJ 00/3-Add.2); Switzerland (CRD 1); Korea (CRD 2); Thailand (CRD 3); France (CRD 5); and, EC (CRD 6 and complementary comments - Unnumbered Document).

Therefore, the Task Force discontinued the consideration of the proposed draft Guidelines for the Labelling of Mixed Fruit Juices and Nectars as a separate issue and decided to inform the Executive Committee accordingly (see paras. 28 and 35).

10. The Task Force further agreed that the proposed draft Revised Codex Standard for Vegetable Juices should be considered separately, with the understanding that it might be incorporated into the General Standard for Fruit Juices and Nectars at its next Session (see para. 34).

Section 1 – Scope

11. The Task Force noted that Section 2.1 – Product Definition, provided a clear indication as to which specific products the General Standard applied and therefore, decided to leave Section 1 – Scope, as drafted.

Section 2.1 – Product Definition

12. There was a lengthy discussion on product definition with opposing views presented. The Task Force however reached the following compromise solution, with the understanding that the issue would be subject to further debate. The Task Force agreed that Section 2.1.1 - Fruit Juice, included fruit juice as well as fruit juice prepared from concentrate and therefore, renumbered Section 2.1.1 to include new subsections 2.1.1.1 (Fruit Juice) and 2.1.1.2 (Fruit Juice from Concentrate) with the appropriate description of provisions applicable to Sections 2.1.1.1 and 2.1.1.2 under new Sections 2.1.1.3, paragraphs (a), (b) and (c).

13. Under the new Section 2.1.1.1 – Fruit Juice, the Task Force deleted the generic reference to the use of processing aids since all substances allowed in the production of fruit juices would be listed in the appropriate section of the Standard (see para. 26).

14. Under the new Section 2.1.1.3 (a) the Task Force clarified the text to indicate that fruit juice may be obtained from fresh fruit or fruit maintained in fresh condition by physical means and/or by treatments approved by the Codex Alimentarius Commission. However, the reference to post harvest treatments was deleted since this issue was already covered under Section 5.3 – Pesticide Residues.

15. The Task Force reworded the new Section 2.1.1.3 (c) to allow for the production of mixed fruit juices prepared from two or more kinds of fruit. It was also decided to consider the addition and/or restoration of aromatic substances, volatile flavour components, pulps and cells to all juices and puree with the understanding that the final wording of the text would be subject to further debate and therefore, the entire sub-section was placed in square brackets.

Section 2.1.2 – Concentrated Fruit Juice

16. The Task Force greatly expanded this Section to indicate that Concentrated Fruit Juice should comply with the provisions for Fruit Juice except that water should be removed in an amount sufficient to increase the Brix level by 50% or more (in square brackets). The Task Force also clarified the processes used in the production of concentrated fruit juice and agreed to include a similar text concerning the production of concentrated mixed fruit juices to this section as had been accomplished in Section 2.1.1.3 (c) (see para. 15).

Section 2.1.3 – Fruit Nectar

17. The Title of the Section was revised to read as “Fruit Nectar” for consistency with other provision titles. The Task Force clarified this Section to indicate that the addition of water to fruit juice or concentrated fruit juice was required in the production of fruit nectar, and that the addition of sugars, honey, and sweeteners, was optional.

Section 2.1.4 – Fruit Puree

18. The Task Force agreed not to restrict the processes used to produce fruit puree by referring to “appropriate processes (e.g., sieving, grinding, milling)”.

Water Extracted Concentrated Fruit Juice

19. The Task Force noted a proposal from Brazil to include a new section for Water Extracted Concentrated Fruit Juice.

Section 2.3 – Extraction Process

20. The Task Force deleted this Section in its entirety as it was adequately addressed in the new Section 2.1.2 – Concentrated Fruit Juice.

Section 3.1.1 (a) – Soluble Solids

21. The Task Force removed the term “condensed” from Section 3.1.1(a)(ii) as the word was not defined within the Standard.

22. As the Task Force noted that the *WHO Guidelines for Drinking Water Quality* contained maximum level provisions for many different contaminants, it was agreed that the specific maximum levels for nitrate and sodium in Section 3.1.1(a)(iii) should be removed. However, the reference to the WHO Guidelines was maintained so that potable water used in the production of reconstituted juice from concentrate would at a minimum meet the maximum level provisions for contaminants contained therein.

Section 3.1.1(b) – Table for Minimum Brix Levels

23. As it was noted that single strength juice consisted of simple juice extractions, it was suggested that the column for minimum Brix level for single strength juices as well as Section 3.1.1(a)(i) should be deleted. It was also suggested that an additional column was required to address fruit purees, and that the table should only include products traded in significant amounts. However, the Task Force agreed to leave the table unchanged pending further discussions (see para. 31).

Section 3.1.2 – Other Permitted Ingredients Subject to Ingredient Labelling Requirements

24. The Task Force agreed to add a new sub-section 3.1.2 (g) to allow for the addition of essential nutrients for fortification purposes in accordance with those texts established by the Codex Alimentarius Commission for this purpose. The Task Force was informed that this provision did not include dietary fibre as this subject was still under discussion by the Codex Committee on Nutrition and Foods for Special Dietary Purposes. The Task Force agreed to leave the remainder of Section 3.1.2 unchanged pending further discussions.

Section 4 – Food Additives

25. The Task Force was informed that all provisions in respect of food additives would require endorsement by the Codex Committee on Food Additives and Contaminants on the basis of technological justification provided by the Task Force and in conformance with the General Principles for the Use of Food Additives and the Preamble to the Codex General Standard for Food Additives, preferably after the standards have been advanced to Step 5. Therefore, the Task Force decided to maintain the maximum levels for food additives as proposed, pending further development of the Standard.

26. The Task Force was informed that processing aids were also subject to endorsement by the Codex Committee on Food Additives and Contaminants and that the addition of such substances to the Standard would be discussed at its next Session (see para. 13).

Section 5 – Contaminants

27. The Task Force deleted the maximum levels for contaminants as proposed, pending the further development of the Codex General Standard for Contaminants and Toxins in Foods by the Codex Committee on Food Additives and Contaminants. The general statement that “The products covered by the provisions of this Standard shall comply with those maximum levels established by the Codex Alimentarius Commission” was included in this Section as had been accomplished for other standards finalized by the Codex Alimentarius Commission.

Section 7 – Labelling

28. As the Task Force could not reach a consensus on modifications to this Section, it was decided to place the entire Section as drafted in square brackets pending further discussion at its next meeting. It was also decided that this Section should incorporate the proposed draft Codex Guidelines for the Labelling of Mixed Fruit Juices and Nectars (CL 2000/04-FJ) (see paras. 9 and 35) and should take account of the relevant provisions contained in the Codex General Standard for the Labelling of Prepackaged Foods and written comments submitted at the current meeting.

Section 8 – Methods of Analysis and Sampling

29. The Task Force decided to assign responsibility for the revision and updating of methods of analysis for both fruit (CL 2000/01-FJ, Tables I and II) and vegetable juices to a drafting group lead by Canada, with the participation of Brazil, Spain, USA and the IFU, with the understanding that a consolidated list would be presented for consideration by the Task Force at its next meeting. In taking this decision, the Task Force indicated that the methods of analysis were “under development” in Section 8.

STATUS OF THE PROPOSED DRAFT CODEX GENERAL STANDARD FOR FRUIT JUICES AND NECTARS

30. The Task Force agreed to return the proposed draft Codex General Standard for Fruit Juices and Nectars to Step 3 (see Appendix II) for circulation and comment by 1 February 2001.

31. It decided to assign the revision of the General Standard to a drafting group led by Brazil, with the assistance of the United States as rapporteur and the participation of France, Germany, Spain, Thailand and the IFU. It was agreed that the drafting group would work by correspondence and would primarily focus its efforts on those undecided provisions of the Standard.

32. It was stressed that the drafting group would consider written comments submitted at the current meeting as well as additional comments submitted at Step 3 (by 1 February 2001) to the Codex Secretariat. It was further decided that all comments submitted would be provided to members of the drafting group by the Codex Secretariat in a timely manner. The Task Force further agreed that the revised Standard to be considered at its next Session would include all comments submitted at Step 3 as well as a clear explanation and justification in regard to decisions taken by the drafting group.

PROPOSED DRAFT REVISED CODEX STANDARD FOR VEGETABLE JUICES (Agenda Item 3b)⁴

33. The Task Force agreed to return the proposed draft Revised Codex General Standard for Vegetable Juices to Step 3 (see Appendix III) for circulation and comment by 1 February 2001.

34. The Task Force decided that the proposed draft Revised General Standard for Vegetable Juices would be considered by the same drafting group established above and in accordance with the same working procedures (see paras. 31-32). It was further agreed that the proposed draft Revised Codex Standard for Vegetable Juices would be considered by the drafting group separately from the proposed draft Codex General Standard for Fruit Juices and Nectars with the understanding that the Standards might be combined at the next session of the Task Force on the basis of the drafting group discussions (see para. 10).

PROPOSED DRAFT CODEX GUIDELINES FOR THE LABELLING OF MIXED FRUIT JUICES AND NECTARS (Agenda Item 3c)⁵

35. In view of previous decisions (see paras. 9 and 28), the Task Force decided to inform the Executive Committee of its decision to discontinue the consideration of the proposed draft Codex Guidelines for the Labelling of Mixed Fruit Juices and Nectars.

OTHER BUSINESS AND FUTURE WORK (Agenda Item 4)

36. The Task Force had no further business or new work to discuss.

⁴ CL 2000/02-FJ and comments submitted by Argentina, Brazil, Canada, Cuba, Cyprus, Italy, Malaysia, New Zealand, Poland, Portugal, South Africa, Spain, United Kingdom, USA, Uruguay and IFU (CX/FJ 00/4); Switzerland (CRD 1); Korea (CRD 2); Thailand (CRD 3); Germany (CRD 4); and, France (CRD 5).

⁵ CL 2000/04-FJ and comments submitted by Argentina, Brazil, Canada, Cuba, Italy, Japan, New Zealand, Portugal, South Africa, Spain, USA, Uruguay (CX/FJ 00/5); Switzerland (CRD 1); Thailand (CRD 3); and, France (CRD 5).

DATE AND PLACE OF NEXT SESSION (Agenda Item 5)

37. The Task Force was informed that its 2nd Session was tentatively scheduled to be held in Rio de Janeiro in 12 – 18 months time, subject to further discussions between the Codex and Brazilian Secretariats.

SUMMARY STATUS OF WORK

Subject	Step	For Action by	Document Reference (ALINORM 01/39)
Proposed Draft Codex General Standard for Fruit Juices and Nectars	3	Governments	Appendix II and paras. 31 & 32
Proposed Draft Revised Codex General Standard for Vegetable Juices		Drafting Group on the revision of the General Proposed Draft Standards (Brazil assisted by USA, France, Germany, Spain, Thailand and the IFU) 2 nd TFFVJ	Appendix III and para. 34
Methods of Analysis and Sampling for Fruit and Vegetable Juices and Nectars	—	Drafting Group on the revision and updating of the Methods of Analysis and Sampling for Fruit and Vegetable Juices and Nectars (Canada assisted by Brazil, Spain, USA and the IFU) 2 nd TFFVJ	para. 29

**LIST OF PARTICIPANTS
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LISTA DE PARTICIPANTES**

CHAIRPERSON: Luiz Carlos de Oliveira
PRESIDENT: Secretário de Defesa Agropecuária
PRESIDENTE: Ministério da Agricultura e Abastecimento
Esplanada dos Ministérios, Bloco D
Anexo B - 4º Andar - Sala 406
70043-900 - Brasília - DF
tel. +55 61 2182314/15+55 61 2269771
Fax +55 61 2243995
e-mail luizcarlos@defesaagropecuaria.gov.br

**ARGENTINA
ARGENTINE**

Dr Jorge Krawiec
Assessor
CAJUN - COPAL
Argerich 3267 3. 1417
Buenos Aires
Tel: 541145309580
Fax: 541145021610

**BELGIUM
BELGIQUE
BÉLGICA**

Mr Theo Biebaut
Conseiller-Chef de Division
Ministere des Affaires Economiques
Rue General Leman 60 B-1040
Bruxelles
Tel: +3222065882
Fax: +3222309565
E-mail: theo.biebaut@mineco.fgov.be

Mr Jan Hermans
Expert of The Belgian Delegation
Avenue de Roodebeek 30 1030
Bruxelles
Tel: +32 27438743
Fax: +32 27368175
E-mail: aijn@sia.dvi.be

**BRAZIL
BRÉSIL
BRASIL**

Sra. Tania S. Mendes Dias
Diretora
DDIV - Departamento de Defesa e Inspeção
Vegetal
Ministério da Agricultura e Abastecimento
Brasília – DF
Tel: +55 61 3223250
Fax: +55 61 2243874
E-mail: tdias@agricultura.gov.br

Sra. Maria Teresa Rodrigues Rezende
Secretaria-Executiva do CCAB
INMETRO
SEPN 511, bloco B, Ed. Bittar III - 4º Andar
Brasília – DF
Tel: +55 61 3402211
Fax: +55 61 3473284
E-mail: seart@montreal.com.br

Sr. Ernani Espírito Santo
Gerente
MCT
Esplanada dos Ministérios - Bl. E – Sala 3
Brasília – DF
Tel: +55 61 3177888
E-mail: espirito@mct.gov.br

Sra. Antonia Maria Aquino
Gerente de Produtos Especiais
Agência Nacional de Vigilância Sanitária
SEPN 515, bloco B, Ed. Omega - 3º Andar
Brasília - DF
Tel: +55 61 4481083
Fax: +55 61 4481080
E-mail: alimentos@anvisa.gov.br

Sra. Maria do Céu Albuquerque
Bióloga/Assessora
Agência Nacional de Vigilância Sanitária
SEPN 515, Lote 2 - Bl. B, Ed. Omega - 4º Andar -
GGLSP
CEP: 70770-502
Brasília - DF
Tel: +55 61 4481389
E-mail: maria.ceu@uol.com.br

Sr. Daniel Egídio Basile
UVIBRA
Av. Osvaldo Aranha, 1075 - 5º Andar - Sala 502
Porto Alegre - RS
Tel: +55 54 4511062
Fax: +55 54 4532266
E-mail: uvibra@italnet.com.br

Sr. Léo Bick

Diretor Técnico
 ABIA
 Av. Brigadeiro Faria Lima, 1478 - 11
 São Paulo - SP
 Tel: +55 11 38165733
 Fax: +55 11 38146688
 E-mail: tecnico.abia@uol.com.br

Sra. Nanci Bitencourt

Técnica
 Agência Nacional de Vigilância Sanitária
 SEPN 515, Lote 2 - Bloco B, Ed. Omega - 3º
 Andar
 CEP: 70770-502
 Brasília - DF
 Tel: +55 61 4481085
 Fax: +55 61 4401080
 E-mail: nancilopes@anvisa.gov.br

Sr. Rudi Braatz

Consultor
 Instituto Brasileiro de Frutas - IBRAF
 Av. Ipiranga, 956
 São Paulo - SP
 Tel: +55 11 2238766
 Fax: +55 11 2238552
 E-mail: rudi@braatz.com

Sr. Hiroshi Arima

Chefe de Divisão
 CIV/DDIV
 SQN 405 - Bl. P - Apto. 201
 Brasília - DF
 Tel: +55 61 2182443
 Fax: +55 61 2248961
 E-mail: lferreirafilho@yahoo.com.br

Sra. Renata Carvalho

Coord. AAI/GM
 AAI/MA
 Esplanada dos Ministérios - Bl. D-Sede-7º And.-
 Sala 733
 Brasília - DF
 Tel: +55 61 2244579
 Fax: +55 61 2254738
 E-mail: limac@agricultura.gov.br

Sr. Luiz Ferreira Filho

Fiscal Federal Agropecuário
 CIV/DDIV
 Esplanada dos Ministérios
 Brasília - DF
 Tel: +55 61 2182443
 Fax: +55 61 2248961
 E-mail: lferreirafilho@yahoo.com.br

Sr. Carlos Alberto Teixeira

MA/DDIV/CIV
 Brasília - DF
 Tel: +55 61 2182443
 Fax: +55 61 2242961
 E-mail: teixeira@agricultura.gov.br

Sr. Luciano Macieira

Diplomata
 MRE/DPB
 Espl. dos Ministérios-Div. Agricultura e Produtos
 de Base
 Brasília - DF
 Tel: +55 61 4416369
 Fax: +55 61 2263255
 E-mail: macieira@mre.gov.br

Sr. Mário Sérgio Caetano

Visanco
 SCLN 212 Bloco D, Ent. 29 - Sala 204/205
 Brasília - DF
 Tel: +55 61 2748732
 Fax: +55 61 3497348
 E-mail: visanco@zaz.com.br

Sra. Janine Camargo

Chefe
 Secretaria de Agricultura do DF
 Anexo do Buriti, 14º Andar
 Brasília - DF
 Tel: +55 61 99634554
 E-mail: ninetc@terra.com.br

Sr. Danilo Costa

Fiscal Federal Agropecuário
 Delegacia Federal de Agricultura em Minas
 Gerais
 Ministério da Agricultura
 Av. Raja Gabaglia 245 - Cidade Jardim
 Belo Horizonte - MG
 Tel: +55 31 2500466
 Fax: +55 31 2500465
 E-mail: siv-mg@agricultura.gov.br

Sr. Cláudio Cunha

Assessor
 SDA/MA
 Condomínio Vivendas Colorado 1 - Mód. B -
 Casa 05
 Brasília - DF
 Tel: +55 61 9230799

Sra. Elisabeth Mary Cunha da Silva

Técnica de Nível Superior
 Agência Nacional de Vigilância Sanitária
 SEPN 515, bloco B, Ed. Omega - 3º Andar
 CEP: 70770-502
 Brasília - DF
 Tel: +55 61 4481083
 Fax: +55 61 4481080
 E-mail: elisabeth.mary@anvisa.gov.br

Sr. Nelson Custódio

Diretoria Técnica
 Amacoco - Água de Coco
 Amazônia
 Setor A - Qd 1 - Lote 6-A - Distrito Industrial
 CEP: 67033-310
 Ananindeua - PA
 Tel: +55 91 2503232
 Fax: +55 91 2503117
 E-mail: custodio@nautilus.com.br

Sr. Moacyr Fernandes

Vice Presidente
 Instituto Brasileiro das Frutas - IBRAF
 Rua Joaquim Pires de Oliveira, 534
 São Paulo - SP
 Tel: +55 11 73967594
 Fax: +55 11 2238766
 E-mail: ibraf@uol.com.br

Sra. Alba Lúcia Nisida

Pesquisador Científico
 ITAL/FRUTHOTEC
 Avenida Brasil, 2880
 Campinas - SP
 Tel: +55 19 2415222
 Fax: +55 19 2423104
 E-mail: anisida@ital.org.br

Sr. Eliseu Nonino

ABECITRUS
 São Paulo - SP
 Tel: +55 16 2011140
 Fax: +55 16 2011524
 E-mail: abecitrus@abecitrus.com.br

Sra. Júlia Oliveira

VISANCO
 SCLN 212 - Bloco D - Entrada 29 - Sala 204
 Brasília -DF
 Tel: +55 61 2748732
 Fax: +55 61 3497348
 E-mail: visanco@zaz.com.br

Sra. Vanuza Paiva

Fiscal Federal Agropecuário
 Ministério da Agricultura
 Al. Cabo Frio,551-Cond. Sol do Flamengo,184-
 Stella Maris
 Salvador - BA
 Tel: +55 71 3207428
 Fax: +55 71 3207428
 E-mail: vdpaiva@ig.com.br

Sr. Maurício Cortes Peralva

Especialista
 Associação Brasileira das Indústrias de
 Refrigerantes - ABIR
 Praia de Botafogo, 374
 Rio de Janeiro - RJ
 Tel: +55 21 5591165
 Fax: +55 21 5591594
 E-mail: mperalva@la.ko.com

Sra. Rosane Maria Pinto

Técnica da Gerência de Produtos Especiais
 Agência Nacional de Vigilância Sanitária
 SEPN Qd. 515 - Lote 2 - Bl. B - Ed. Omega - 3º
 Andar
 CEP: 70770-502
 Brasília - DF
 Tel: +55 61 4481083
 Fax: +55 61 4481080
 E-mail: gpe@anvisa.gov.br

Sr. Amauri Rosenthal

Scientific Researcher
 EMBRAPA - Food Technology Center
 Av. das Américas, 29501
 Rio de Janeiro - RJ
 Tel: +55 21 4107441
 Fax: +55 21 4101090
 E-mail: arosen@ctaa.embrapa.br

Sr. Antonio Carlos Gonçalves

Technical Committee Chairman
 ABECITRUS
 Rodovia Armando S. Oliveira Km 396
 CEP: 14700-000
 Bebedouro - SP
 Tel: +55 17 3446030
 Fax: +55 17 3446003
 E-mail: coinbra-frutesp.ct@mdbrasil.com.br

Sra. Terumi Kuroda

Gerente Técnico
 ABIA
 Av. Antonio Frederico Ozanan 4501
 Jundiaí - SP
 Tel: +55 11 73932073
 Fax: +55 11 3932126
 E-mail: terumi@nabisco.com.br

Sr. Cláudio Hermann Magalhães

Técnico da Gerência de Produtos Especiais
 Agência Nacional de Vigilância Sanitária
 Ministério da Saúde
 SEPN Qd 515, bloco B
 CEP: 70770-502
 Brasília - DF
 Tel: +55 61 4481083
 Fax: +55 61 4481080
 E-mail: alimentos@anvisa.gov.br

Sr. Geraldo Maia

Professor
 ASTN/UNIV.FC
 Rua Silva Jatahi, 400 - Apto. 901-A
 Fortaleza - CE
 Tel: +55 85 2889752
 Fax: +55 85 2889752
 E-mail: frutos@ufc.com.br

Sr. Armando Jorge Moreno

Diretor
 ASTN
 BR 34 Km 09
 Mossoró - CE
 Tel: +55 84 3231163
 Fax: +55 84 3231207
 E-mail: cci@maisa.com.br

Sr. Guaracy Mundim

Diretor Administrativo
 Kivita Alimentos
 Quadra 27 - Mód. 24 Dial
 Luziânia - GO
 Tel: +55 62 5020529

Sra. Adriana Silva

Técnica da Gerência de Produtos Especiais
 Agência Nacional de Vigilância Sanitária
 SEPN Qd. 515 - Lote 2 - Bl. B - Ed. Omega - 3º
 Andar
 CEP: 70770-502
 Brasília - DF
 Tel: +55 61 481084
 Fax: +55 61 481080

Sra. Lúcia Nanci

Diretora Administrativa
 AGROFEED
 BR 230 Km 16
 Souza Paraíba - PB
 Tel: +55 83 4216321

Sr. Maelcio Souza

Chefe da SIV/DFALPA
 Ministério da Agricultura
 Av. Almirante Barroso, 8354
 Belém - PA
 Tel: +55 91 2437033
 Fax: +55 91 2437033

Sr. Paulo Coimbra Storino

Vice-Presidente
 Assoc. Indústrias de Polpa e Suco de Frutas do
 Pará - ASSPOLPA
 Trav. Quintino Bocaiuva, 1588 - Bl. B - 6º Andar
 Belém - PA
 Tel: +55 91 2441666
 Fax: +55 91 2441666
 E-mail: asspolpa@bol.com.br

Sra. Déborah Evangelista Teixeira

Técnica da Gerência de Produtos Especiais
 Agência Nacional de Vigilância Sanitária
 SEPN Qd. 515 - Lote 2 - Bl. B - Ed. Omega - 3º
 Andar
 CEP: 70770-502
 Brasília - DF
 Tel: +55 61 481083
 Fax: +55 61 481080
 E-mail: gpe@anvisa.gov.br

Sr. Rogério Tocchini

Pesquisador Científico
 ITAL/FRUTHOTEC
 Avenida Brasil, 2880
 Campinas - SP
 Tel: +55 19 2415222
 Fax: +55 19 2423104
 E-mail: tocchini@ital.org.br

CANADA**CANADÁ****Mr Donald Bush**

Chief, Processed Foods
 Canadian Food Inspection Agency
 59 Camelot Drive
 Nepean, Ontario - K1 A 0 Y 9
 Brasília - DF
 Tel: +6132252342 EXT 4715
 Fax: +6132286632
 E-mail: dbush@em.agr.ca

Mrs Carla Barry

Associate Director
 Canadian Food Inspection Agency
 Laboratory Services Division
 C.E.F., Building #22, Carling Avenue
 Ottawa, Ontario - KIA OC6
 Tel: +6137591220 - Fax: +6137591260
 E-mail: cbarry@em.agr.ca

CUBA**Ing Agustina Guerras Artigas**

Ingeniera Especialista en Desarrollo

Tropical Island - Ministerio de la Industria
Alimenticia

Calle 216-a no 1506 entre 15 y 17, Siboney

Ciudad Habana

Tel: +537330586

Fax: +537336519

E-mail: trisland@ceniai.inf.cu**FRANCE****FRANCIA****Mrs Isabelle Foliard**Ministère de L'Economie, des Finances et de
Industrie59, Boulevard Vincent Auriol 75703 CEDEX 13
Paris

Tel: +33144972912

Fax: +33144973039

E-mail: isabelle.foliard@dgccf.finances.gouv.fr**Ms Carol Buy**Ministère de L'Agriculture et de la Pêche
351, Rue de Vaugirard 75732 CEDEX 15

Paris

Tel: +33149555863

Fax: +33149555948

E-mail: carol.buy@agriculture.gouv.fr**Catherine Hubert**

CSR Pampryl

160, Avenue Paul Vaillant-Couturier 93126 la
Courneuve CEDEX

Paris

Tel: +33148357904

Fax: +33148357910

E-mail: chubert@csrpampryl.com**Dr Laurent Lapierre**

Technical Manager

Bureau Couécou

Villa Aranoa - RN 10 64200 Biarritz la Negresse

Paris

Tel: +559438000

Fax: +559411282

E-mail: laurent.lapierre@couecou**Ms Roseline Lecourt**

Chargee de Mission

Ministère de L'Economie, des Finances et de
L'Industrie59, Boulevard Vincent Auriol CEDEX 13
75703Paris

Tel: +33144973470

Fax: +33144973037

E-mail: roseline.lecourt@dgccrf.finances.gouv.fr**GERMANY****ALLEMAGNE****ALEMANIA****Dr Karl W. Evers**

Ministerialrat

Bundesministerium Für Gesundheit

Am Propsthof 78 A

D-53121 Bonn

Tel: +492289414160

Fax: +492289414967

E-mail: evers@bmg.bund.de**Mr Klaus Sondhauss**

Managing Director

Verband der Deutschen Fruchtsaft - Industrie E.V.

Mainzer Strasse 253

D-53179 Bonn

Tel: +49228954600

Fax: +492289546030

HUNGARY**HONGRIE****HUNGRÍA****Mr Endre Racz**

Head of Unit

Ministry of Agriculture and Regional
Development

H-1860 Budapest Pf.1

Tel: +3613014383

Fax: +3613014808

E-mail: endre.raez@fum.hu**Mr Ákos Hágér - Heress**

Packaging Engineer

Aroma Ba'zis KFT

PF32 h-2143 Kistarcsa

Határ

Tel: +3628447358

Fax: +3628447358

E-mail: aromabazis@mail.digitel2002.hu

ISRAEL**Mr Lazar Volman**

Director General
Citrus Products Board of Israel
29 Karlibach St.
Tel-Aviv 67132
Tel: +97235612323
Fax: +97235612327

ITALY**ITALIE****ITALIA****Dr Giuseppe de Giovanni**

Ministero dell'Industria
Via Molise, 2
00187 Roma
Tel: +39 06 47887729
Fax: +39 06 47887797

Dr.sa Brunella Lo Turco

Ministero delle Politiche Agricole e Forestali
Via XX Settembre, 20
00187 Roma
Tel: +39 06 46656509
Fax: +39 06 4880273
E-mail: biturco@tiscalinet.it

JAPAN**JAPON****JAPÓN****Mr Yuji Kazuo**

Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigasaki Chiyoda-Ku
Tokyo
Tel: +81-3-35014094
Fax: +81-3-35024038
E-mail: kazuo_yuji@nm.maff.go.jp

Mr Shunji Hatakeyama

Kagome, CO., Ltd.
Nihonbashi-Hamacho F Tower, 3-21-1,
Nihonbashi-Hamacho - Chuo-Ku
Tokyo
Tel: +81-3-56238509
Fax: +81-3-56232338
E-mail: shunji_hatakayama@kagome.co.jp

Mr Hiroshi Yokochi

Secretario
Embaixada do Japão
Setor de Embaixadas Sul, Av. das Nações, Lote
39
Brasília - DF
Tel: +55 61 2426866

Mr Isao Yoshimura

Japan Food Industry Center
1-10-1 Shiba-Daimon, Minato-Ku
Tokyo
Tel: +81-3-3435-0732
Fax: +81-3-3435-0737
E-mail: i_yoshi@cello.ocn.ne.jp

MALAYSIA**MALAISIE****MALASIA****Mr Sahdan Salim**

Director Inspectorate
The Malaysian Pineapple Industry Board Wisma
Nanas
5. Wisma Nanas, Jalan Padi Mahsuri, Bandar
Baru Uda - P.O.Box 35, 80700
81200 - Johor Bahru
Tel: (607)2361211
Fax: (607)2365694
E-mail: mpib@tm.met.my

MOZAMBIQUE**Sra Marta Ricardo Gove**

Técnica de Química
Ministério da Saúde L.N.H.A.A.
Av. Eduardo Mondlane 4º Andar Direito /
Salvador Allende
Tel: +25801425178
Fax: +25801307419
E-mail: angela@lnhaa.uem.mz

Sra Maria Nivalda Lazaro

Bióloga
Ministério da Saúde L.N.H.A.A.
Av. Eduardo Mondlane 4º Andar Direito /
Salvador Allende
Tel: +25801425178
Fax: +25801307419
E-mail: angela@lnhaa.uem.mz

NETHERLANDS**PAYS-BAS****PAÍSES BAJOS****Mr Frederic Westerling**

Quality Policy Officer
Ministry of Agriculture
P.O.Box 20401, 2500 Ek The Hague
Tel: +31703784398
Fax: +31703786123
E-mail: f.j.westerling@ih.agro.nl

Mr Martin Greeve

Manager

IQM and EU Affairs of Doehler Euro Citrus B.V.
P.O.Box 227

Oosterhout

Tel: +31162479500

Fax: +31162479583

E-mail: martin.greeve@doehler.com**NEW ZEALAND****NOUVELLE-ZÉLANDE****NUEVA ZELANDIA****Mr Tony Beattie**

NZJA/AFJA

9 Earle St. Parnell

Auckland

Tel: +6493097783

Fax: +6493073728

E-mail: tony@directus.co.nz**NIGERIA**

Prof. Tseha Shambe

Standard Organisation of Nigeria

Plot 1687, Lome Street, WUSE Zone 7

Abuja

Tel: +09 523918

Fax: +01 2696178

E-mail: son@linkserve.com.ng**SOUTH AFRICA****AFRIQUE DU SUD****SUDÁFRICA****Mr Michiel Daniel Erasmus**

Quality Control Officer

National Department of Agriculture

Private BAG X-258

Pretoria 0001

Tel: +27123196027

Fax: +27123196055

E-mail: niele@nda.agric.za**Mr Daniel Matlala**

Quality Control Officer

National Department of Agriculture

Private BAG X-258

Pretoria 0001

Tel: +273196386

Fax: +273196055

E-mail: danielma@nda.agric.za**SPAIN****ESPAGNE****ESPAÑA****Sra Elisa Revilla**Jefe de Area Sub.Gral. Planificación Alimentaria
Ministerio de Agricultura, Pesca y Alimentación

P. Infanta Isabel, nº 1

Madrid 28071

Tel: +34913474596

Fax: +34913475728

E-mail: erevilla@mapya.es**Sr. Jose Lorente Fernandez**

Assessor

Asozumos

C. Princesa, 24

Madrid

Tel: +55 91 5592452

E-mail: jose_lozente@fmc.com**SWEDEN****SUÈDE****SUECIA****Mrs Kerstin Jansson**

Senior Administrative Officer

Ministry of Agriculture, Food and Fisheries

SE - 10333

Stockholm

Tel: +4684051168

Fax: +468206496

E-mail: kerstin.jansson@agriculture.ministry.se**SWITZERLAND****SUISSE****SUIZA****M. Pierre Schauenberg**

Chef de section

Office Fédéral de L'Agriculture

Mattenhofstrasse 5

CH-3003 Berne

Tel: +41313248421

Fax: +41313230555

E-mail: pierre.schauenberg@blw.admin.ch**Mr Bruno Jud**

Director

Unipektin AG

Bahnhofstrasse 9

CH 8264 Eschenez

Tel: +41527423131

Fax: +41527423132

E-mail: bjud@unipektin.ch

THAILAND
THAÏLANDE
TAILANDIA

Dr. Saipin Maneepun

Director
 Institute of Food Research and Product
 Development, Kasetsart University
 50 Phaholyotn Road
 Bangkok 10900
 Tel: +6625795551
 Fax: +6625611970
 E-mail: usmp@ku.ac.th

Mr Nipont Dilokkunanant

Senior Economist
 Office of the Permanent Secretary, Ministry of
 Agriculture and Cooperatives
 3 Rajdamnern Nok Road, Phra Nakorn Zone
 Bangkok 10200
 Tel: +6622810542
 Fax: +6626298978

Mr Rangsana Maneeroj

First Secretary
 Embassy of Thailand
 Sen. Av. das Nações Lote 10 - CEP 70.433-900
 Brasília - DF
 Tel: +55 61 2246943
 Fax: +55 61 2237502
 E-mail: rangsana@brnet.com.br

Mrs Oratai Silapanaporn

Chief of Food Standards Group 1
 Office of the National Codex Alimentarius
 Committee, Thai Industrial Standards Institute
 Rama VI Street, Ratchathewi
 Bangkok 10400
 Tel: +6622023444
 Fax: +6622487987
 E-mail: oratais@tisi.go.th

Mrs Anurat Tiamtan

Vice President
 Thai Food Processors Association
 170/22 9 th Floor Ocean Tower I Building New
 Ratchadapisek Road, Klong Toey
 Bangkok 10110
 Tel: +6622612684-6
 Fax: +6622612996-7
 E-mail: thaifood@thaifood.org

Mrs Linda Pleanprasert

Assistant Technical Manager
 Thai Food Processors Association
 170/22 9 th Floor Ocean Tower I Building New
 Ratchadapisek Road, Klong Toey
 Bangkok 10110
 Tel: +662 26126846
 Fax: +662 26129967
 E-mail: thaifood@thaifood.org

UNITED KINGDOM

ROYAUME-UNI

REINO UNIDO

Dr Gerald Goldwin

Food Standards Agency
 Room 323, Ergon House P.O.Box 31037
 Horseferry Road SWIP 3WG
 London
 Tel: +442072385989
 Fax: +442072385782
 E-mail: gerald.goldwin@foodstandards.gsi.gov.uk

UNITED STATES OF AMERICA

ÉTATS-UNIS D'AMÉRIQUE

ESTADOS UNIDOS DE AMÉRICA

Dr Martin Stutsman

U.S. Food and Drug Administration
 200 C Street, S W, (HSF-306)
 Washington, DC 20204
 Tel: +2022601949
 Fax: +2022054422
 E-mail: mstutsma@cfsan.fda.gov

Mr Carl Castleton

Director
 Embaixada Americana
 Brasília - DF
 Tel: +55 61 3217272
 Fax: +55 61 2268764
 E-mail: carl.w.castleton@ujda.gov

Ms Edith Kennard

Staff Officer, U.S. Codex Office
 U.S. Department of Agriculture FSIS
 1400 Independence Avenue, SW Room 4861,
 South Building
 Washington, DC 20250
 Tel: +2027205261
 Fax: +2027203157
 E-mail: edith.kennard@usda.gov

Dr John Lyon

Director of Technical Services
Dole Food Co., INC
One Dole Drive
Westlake Village, CA 91362-7300
Tel: +8188744648
Fax: +8188744804
E-mail: john_lyon@na.dole.com

Ms Dianne Nury

President
Vie-Del Company
P.O.Box 2896
Fresno, C.A. 93745
Tel: +5598342525
Fax: +5598341348
E-mail: dnury@vie-del.com

Ms Felicia Satchell

U.S. Food and Drug Administration
200 C Street, S W, (HSF-820)
Washington, DC 20204
Tel: +2022054168
Fax: +2022055295
E-mail: fsatchel@cfsan.fda.gov

Ms Chere Shorter

Agricultural Marketing Specialist
USDA, AMS, FV, Processed Products Branch
1400 Independence Ave., Room 0709 South
Building SW
Washington, DC 20250
Tel: +2027205021
Fax: +2026901527
E-mail: chere.shorter@usda.gov

Dr. Michael Wehr

Program Manager
U.S. Food and Drug Administration
200 C Street, SW (HSF - 550)
Washington, DC 20204
Tel: +2022602786
Fax: +2022050165
E-mail: mwehr@cfsan.fda.gov

Mr. Kevin Gaffney

Senior Research Manager
Florida's Natural Growers
P.O.Box 1111
Lake Wales, FL 33859
Tel: +8636761411
Fax: +8636789588
E-mail: kgaffney@citrusworld.com

Mr. Richard Kellor

Cargill Citro-America, inc.
Mailstop 92 15407 Mc Ginty Road, West - 55391-
2399 - P.O.Box 5642
MS 92 MPLO, MUR
Wayzata - MN
Tel: 9527426456
Fax: 9527426233
E-mail: richard_kellor@cargill.com

Dr Allen Matthys

National Food Processors Association
1350 I Street, NW
Washington, DC - 20005
Tel: +2026395960
Fax: +2026395943
E-mail: amatthy@nfpa-food.org

Mrs Lisa Rath

Executive Vice President
Florida Citrus Processors Association
P.O.Box 780
Winter Haven, FL 33882-0780
Tel: +8632934171
Fax: +8632934746
E-mail: irath@fcplanet.org

Ms. Lucy Reid

Director of Scientific and Regulatory Affairs
The Minute Maid Company
P.O.Box 2079 - 77252-2079
Houston, Tx
Tel: +7138885757
Fax: +7138885792
E-mail: alreid@minutemaids.com

Mr. William Rottman

Tropicana Products
P.O.Box 338
Bradenton, FL - 34206
Tel: +9417423268
Fax: +9417493968
E-mail: bill.rottman@tropicana.com

Dr William Stinson

Scientific Research Director
Florida Department of Citrus
700 Experiment Station Road
Lake Alfred FL 33850
Tel: +8632955935
Fax: +8632955935
E-mail: stinson@citrus.state.fl.us

**INTERNATIONAL ORGANIZATIONS
ORGANISATIONS INTERNATIONALES
ORGANIZACIONES INTERNACIONALES**

EUROPEAN COMMISSION

Sr Stefano Gatto

Conselheiro Econômico
Delegação da Comissão Europeia no Brasil
SHIS QI 07 Bloco A
Brasília - DF
Tel: +55 61 2483122
Fax: +55 61 2480700
E-mail: stefano.gatto@comdelbra.org.br

EUROPEAN UNION

Mr Paul Culley

Council of the European Union
175, Rue de La Loi 1048
Bruxelles - Belgium
Tel: +3222856197
Fax: +3222857928
E-mail: paul.culley@consilium.eu.int

**INTERNATIONAL FEDERATION OF FRUIT JUICE
PRODUCERS - IFU**

Mr Paul Zwiker

President IFU
Posfach 45 CH-9220
Bischofszell - Switzerland
Tel: +41714200644
Fax: +41714200643
E-mail: zwiker@bluewin.ch

Ms Nathalie Beriot

Secrétaire General de IFU
23 Bd des Capucines
Paris 75002
Tel: +33147428280
Fax: +33147428281
E-mail: ifu.int.fed.fruit.juicer@wanadoo.fr

Mrs Kristen Gunter

IFU
500 s. Florida Ave. Suite 200
Lakeland, FL 33803
Tel: +8636809928
Fax: +8636822849
E-mail: gunchad@aol.com

Dr. Hans - Jürgen Hofsummer

General Manager IFU
Landgrafestrasse 16 10787
Berlin
Tel: +490302639200
Fax: +490302619076
E-mail: gfl.berlin@t-online.de

Mr. Roderick A. Ryan

Director IFU
P.O.Box 88 Cabra
Dublin 7 - Ireland

**COMITÉ DE LIAISON DE L'AGRUMICULTURE
MEDITERRANEEENNE - CLAM**

Dr Octavio Ramón Sales

President CLAM
San Francisco de Sales 41 Escal. 1-2 oC 28003
Madrid
Tel: +34915532642
Fax: +34915360682
E-mail: secretariatgeneral@clamcitrus.org

CODEX SECRETARIAT

**SECRETARIAT DU CODEX
SECRETARIA DEL CODEX**

Ms Gracia Brisco

Food Standards Officer
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla, FAO
00100 Rome - Italy
Tel: +390657052700
Fax: +390657054593
E-mail: gracia.brisco@fao.org

Mr David Byron

Food Standards Officer
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla, FAO
00100 Rome - Italy
Tel: +390657054419
Fax: +390657054593
E-mail: david.byron@fao.org

**FOOD AND AGRICULTURE ORGANIZATION -
FAO**

Ms Eliana Ferreira

Oficial Encarregada
FAO
Eixo Monumental, Via S1 Campus do INMET
Brasília - DF
Tel: +55 61 3432299
Fax: +55 61 3432550
E-mail: fao-bra@field.fao.org

BRAZILIAN SECRETARIAT

Sra Maria Aparecida Martinelli

Coordinator of Brazilian Codex Committee
INMETRO
SEPN 511, Bloco B, 4º Andar
Brasília - DF
Tel: +55 61 3402211
Fax: +55 61 3473284
E-mail: mamartinelli@montreal.com.br

**PROPOSED DRAFT CODEX GENERAL STANDARD FOR FRUIT JUICES AND NECTARS
(At Step 3)**

1. SCOPE

This standard applies to all fruit juice and fruit nectars as defined in Section 2.1 below.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

2.1.1 Fruit Juice

Fruit juice is the unfermented but fermentable liquid obtained as follows:

2.1.1.1 **Fruit juice** directly expressed by mechanical extraction processes.

2.1.1.2 **Fruit juice from concentrate** by reconstituting concentrated fruit juice defined in Section 2.1.2 with potable water that meets the criteria described in Section 3.1.1(a)(iii).

2.1.1.3

- a) The juice is obtained from the edible part of sound, appropriately mature and fresh fruit or fruit maintained in fresh condition by physical means and/or by treatments applied in accordance with the provisions of the Codex Alimentarius Commission.
- b) The juice may be cloudy or clear and must have the essential characteristics typical of the juice of the fruit from which it comes..
- c) A single juice is obtained from one kind of fruit. Two or more kinds of juices may be mixed together. Juice may have added or restored aromatic substances, volatile flavour components, pulp and cells, all of which must be recovered from the same kinds of fruits and be obtained by physical means.]

2.1.2 Concentrated Fruit Juice

Concentrated fruit juice is the product that complies with the definition given in Section 2.1.1 above, except water has been physically removed (from such juice) in a given amount [sufficient to increase the Brix level by 50% or more]. In the production of juice that is to be concentrated [adequate technological]⁶ [physical]⁷ processes are used and may [include]¹ [be combined with]² simultaneous diffusion of the pulp cells or fruit pulp by water, provided that the water extracted juice is added in-line to the primary juice, before the concentration procedure

Two or more kinds of fruit juice concentrates may be mixed together. Fruit juice concentrates may have added or restored aromatic substances, volatile flavour components, pulp and cells, all of which must be recovered from the same kinds of fruits and be obtained by physical means.

2.1.3 Fruit Nectar

Nectar is the unfermented but fermentable product, obtained by adding water with or without the addition of sugars as defined in the Codex Standard for Sugars (CX-STAN 212-1999), other carbohydrate sweeteners such as honey and/or other sweeteners as described in Section 4.5, to products defined in Sections 2.1.1 and 2.1.2, or to fruit purée or concentrated fruit purée or to a mixture of those products.

That product moreover must meet the requirements defined in Section 3.1.1(c).

2.1.4 Fruit Purée

Fruit purée is the unfermented but fermentable product obtained by appropriate processes (eg sieving, grinding, milling) the edible part of the whole or peeled fruit without removing the juice. The fruit must be sound, appropriately mature and fresh fruit or preserved by physical means or by treatment applied in accordance with the provisions of the Codex Alimentarius Commission. Concentrated fruit purée may be obtained by the physical removal of water of the fruit purée.

⁶ First option

⁷ Second Option

2.2 SPECIES

The species indicated as the botanical name in Section 3.1.1(b) shall be used in the preparation of juices and nectars bearing the food name for the applicable fruit. For fruits not included in Section 3.1.1(b), the correct botanical or common name shall apply.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

(a) Soluble Solids as follows:

- i. For fruit juices not from concentrate offered for consumption as such, the soluble solids content of the single strength juice shall not be modified and must be in accordance with the minimum Brix level established in Section 3.1.1(b).
- ii. The preparation of fruit juice offered for direct consumption that requires reconstitution of concentrated juices must be in accordance with the minimum Brix level established in Section 3.1.1 (b), exclusive of the solids of any added optional ingredients and additives. If there is no Brix level specified, in the table, minimum Brix shall be calculated on the basis of the soluble solids content of the single strength, unconcentrated juice used to produce such concentrated juice.
- iii. For reconstituted juice from concentrate, potable water used in reconstitution shall, at a minimum, meet *Guidelines for Drinking Water Quality of the World Health Organization* (Volumes 1 and 2, 2nd Edition)

(b) Minimum Brix level for reconstituted juice from concentrate and single strength juice not from concentrate.

Fruit	Botanical Name	Brix Level Reconstituted juice from concentrate	Brix Level Single strength juice not from concentrate
Apple	<i>Pyrus Malus</i>	11.2	10.2
Apricot	<i>Prunus armeniaca L.</i>	11.2	10.2
Aronia / Chokeberry	<i>Aronia melanocarpa (Michx.) Ell.</i>	No data currently available	No data currently available
Azerole	<i>Malpighia punicifolia L.</i>	6.5	6.0
Banana	<i>Musca species</i> (plantians excluded)	21	20.0
Bilberry/Blueberry	<i>Vaccinium myrtillus L.</i> <i>Vaccinium corymbosum L.</i> <i>Vaccinium angustifolium</i>	10.0	8.5
Blackberry	<i>Rubus Fruitcosus L.</i>	8.8	8.0
Blackcurrant	<i>Ribes nigrum L.</i>	11.0	10.5
Boysenberry	<i>Rubus loganobaccus L.H. Bailey</i>	8.0	7.0
Buckthornberry = Sallow thorn		5.8	No data currently available
Carambola	<i>Averrhoa carambola</i>	7.8	No data currently available
Casaba melon	<i>Cucumis melo var. Inodorus</i>	7.5	No data currently available
Cashew Fruit	<i>Anacardium occidentale L.</i>	11.5	10.5
Cloudberry	<i>Rubus chamaemorus L.</i>	9.0	8.0
Coconut	<i>Cocos nucifera L.</i>	No data currently available	No data currently available
Cranberry	<i>Vaccinium macrocarpon Ait.;</i> <i>Vaccinium oxycoccos L.</i>	7.5	7.0

Fruit	Botanical Name	Brix Level Reconstituted juice from concentrate	Brix Level Single strength juice not from concentrate
Crowberry	<i>Empetrum nigrum</i> L.	6.0	5.5
Date	<i>Phoenix dactylifera</i> L.	18.5	No data currently available
Dew berry	<i>Rubus hispidus</i> of North America & <i>R. caesius</i> of Europe	10.0	No data currently available
Elderberry	<i>Sambucus nigra</i> L. <i>Sambucus canadensis</i>	10.0	9.0
Fig	<i>Ficus carica</i>	18.2	No data currently available
Gooseberry	<i>Ribes uva-crispi</i> L.	7.0	6.0
Grape	<i>Vitis Vinifera</i> or hybrids thereof; <i>Vitis</i> <i>Labrusca</i> or hybrids thereof	15.9	13.5
Grapefruit	<i>Citrus Paradisi</i> Macfayden	10.0	9.5
Guava	<i>Psidium guajava</i>	9.5	8.5
Honey dew melon	(<i>Cucumis melo</i>)	9.6	No data currently available
Kiwi	<i>Actinidia chinensis</i> J.E. Planch	11.5	10.5
Kumquat	<i>Fortunella</i> sp.	No data currently available	No data currently available
Lemon	<i>Citrus limon</i> (L.) Burm.f.)	8.0	7.0
Lime	<i>Citrus aurantifolia</i> Swingle	8.0	7.0
Lingonberry	<i>Vaccinium vitis-idaea</i> L.	10.0	9.0
Loganberry	<i>Rubus ursinus</i> var. <i>loganobaccus</i>	10.0	No data currently available
Lulo	<i>Solanum quitoenes</i> L.	No data currently available	No data currently available
Litchi	<i>Litchi chinensis</i> Sonn.	12.0	11.2
Mandarin/Tangerine	<i>Citrus reticulata</i>	11.2	10.5
Mango	<i>Mangifera indica</i>	13.0	14.0
Melon	<i>Cucumis melo</i> L.	8.0	7.5
Mulberry	<i>Morus spec.</i>	No data currently available	No data currently available
Nectarine	<i>Prunus persica</i>	10.0	No data currently available
Orange	<i>Citrus sinensis</i>	11.2	10.0
Papaya	<i>Carica papaya</i> L.	9.5	9.0
Passion fruit	<i>Passiflora edulis</i> and <i>Passiflora edulis</i> forma <i>flavicarpa</i>	13.5	12.4
Peach	<i>Prunus persica</i>	10.0	9.0
Pear	<i>Pyrus communis</i> L. ;	11.9	11.0
Persimmon	<i>Diospyros kaki</i> L.	No data currently available	No data currently available
Pineapple	<i>Ananas comosus</i> L. Merrill = <i>Ananas sativus</i> L. Lindl.	12.8	11.2
Plum	<i>Prunus domestica</i> L.	11.2	10.0
Pomegranate	<i>Punica granatum</i>	12.0	11.2

Fruit	Botanical Name	Brix Level Reconstituted juice from concentrate	Brix Level Single strength juice not from concentrate
Prune	<i>Prunus domestica</i>	18.5	No data currently available
Quetsche	<i>Prunus domestica L.</i>	11.2	10.0
Quince	<i>Cydonia oblonga</i>	11.2	10.0
Raspberry	<i>Rubus idaeus</i>	7.0	6.3
Red currant	<i>Ribes rubrum L.</i>	10.0	9.0
Rhubarb	Rheum, <i>R. rhubarbarum</i>	5.7	No data currently available
Rose hip	<i>Rosa sp.</i>	9.0	8.0
Rowanberry	<i>Sorbus aucuparia L.</i>	11.2	10.0
Sallow-thron berry	<i>Hippphae rhamnoides L.</i>	5.8	5.0
Sloe	<i>Prunus spinosa L.</i>	5.8	5.0
Sour cherry	<i>Prunus cerasus</i>	13.5	12.4
Soursop	<i>Annona muricata L.</i>	14.5	13.5
Stonesbaer	<i>Prunus cerasus cv. Stevnsbaer</i>	17.3	14.7
Strawberry	<i>Fragaria ananassa</i>	7.0	6.3
Sugar apple	<i>Annona squamosa L.</i>	14.5	13.5
Sweet cherry	<i>Prunus avium</i>	20.0	No data currently available
Tomato	<i>Lycopersicum esculentum L.</i>	5.0	4.2
Umbu	<i>Spondias tuberosa anuda</i>	9.0	8.0
Water melon	<i>Citrullus lanatus L.</i>	7.8	7.5
White currant	<i>Ribes rubrum L.</i>	10.0	9.0

(c) Special Provisions relating to Fruit Nectars

Fruit nectars made from	Minimum juice and/or purée content (% m/m)
Apricot	35
Bilberry	40
Blackberry	30
Blackcurrant	30
Blackcurrant (non pulpy)	30
Cloudberry	30
Cranberry	30
Elderberry	50
Goosberry	30
Grapefruit	50
Guava	25
Mandarine	50
Mango (pulpy)	30
Orange	50
Peach	40
Peer	40
Raspberry	40
Redcurrant	30
Rose hip	40
Rowanberry	30
Sea Buckthorn	25
Strawberry	40
Tangerine	50

Fruit nectars made from	Minimum juice and/or purée content (% m/m)
Whitecurrant	30
Whortleberry	30
Other : high acidity, high pulp content, or strong flavour	25
Other : low acidity, low pulp content, or low/medium flavour	50

3.1.2 Other permitted ingredients subject to ingredient labelling requirements

- (a) Sugars with less than 2% moisture (as defined in the Codex Standard for Sugars CX-STAN 212-1999): sucrose, dextrose monohydrate, dextrose anhydrous, glucose, fructose may be added to all juice products defined in Section 2.1.
- (b) Syrups (as defined by Codex Standard for Sugars CX-STAN 212-1999): glucose syrup, liquid sucrose, invert sugar solution, invert sugar syrup, fructose syrup, isoglucose, high fructose syrup, sugar derived from fruits and honey may be added only to nectars as defined in Section 2.1.3, concentrated juices as defined and juice from concentrate.
- (c) Lemon juice or lime juice, or both, may be added: up to 3-g/l anhydrous citric acid (50 meq) for acidification purposes to unsweetened juices as defined in Sections 2.1.1 and 2.1.2. Lemon juice or lime juice, or both, may be added : up to 5 -g/l anhydrous citric acid to nectars as defined in Section 2.1.3
- (d) The addition of both sugars and acidifying agents (defined in subparagraph (b) and Section 4 respectively) to the same fruit juice is prohibited.
- (e) The juice from reticulata and citrus hybrids with reticulata may be added to orange juice in an amount not to exceed 10% by weight of total soluble solids.
- (f) Salt and spices may be added to tomato juice.
- (g) The addition of essential nutrients (eg vitamins, minerals) shall comply with the texts of the Codex Alimentarius Commission established for this purpose.

3.2 QUALITY CRITERIA

The juices and nectars shall have the characteristic colour, aroma and flavour of juice from the variety of fruit from which it is made. Natural fruit juice components may be restored to juice of the same type of fruit from which such natural volatile fruit juice components have been removed.

4 FOOD ADDITIVES

Function	Maximum Level
4.1 Antioxidants	
300 Ascorbic acid	Limited by GMP
220 Sulphur dioxide (lemon, lime and grape must only)	350 mg/l
4.2 Acidity Regulators	
300 Citric acid	2 g/l
330 Citric acid (for nectars)	5 g/l
296 Malic acid (for nectars)	Limited by GMP
336 Tartaric acid (for nectars)	Limited by GMP
4.3 Carbonating Agents	
290 Carbon dioxide	Limited by GMP
4.4 Stabilizers	
440 Pectins	< 3g/l
4.5 Sweeteners (for Nectars)	
950 Acesulfame K	< 350 mg
951 Aspartame	< 600 mg
952 Cyclamic acid and salts	<400 mg/l
954 Saccharine and salts	< 80 mg/l
955 Sucralose	< 250 mg/l

Function	Maximum Level
954 Neohesperidine	< 30 mg/l
4.6 Preservatives can be added only in accordance with national legislation.	

5. CONTAMINANTS

The products covered by the provisions of this standard shall comply with those maximum levels established by the Codex Alimentarius Commission.

5.1 HEAVY METALS

The products covered by the provisions of this standard shall comply with those maximum levels established by the Codex Alimentarius Commission.

5.2 PESTICIDE RESIDUES

The products covered by the provisions of this standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission.

6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2 The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

[7. LABELLING

In addition to the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 2-1999) the following specific provisions apply:

7.1 CONTAINERS DESTINED FOR THE FINAL CONSUMER

7.1.1 The Name of the Food

7.1.1.1 Fruit Juice

The name of the product shall be the name of the fruit juice used as defined in Section 2.2. Such food name may only be used for juices conforming to the definition in Section 2.1.1 of this standard and which otherwise conform to this standard.

7.1.1.2 Concentrated Fruit Juice

The name of the product is “concentrated ____ juice or ____ juice concentrate”, the blank being filled with the species for the applicable name of the fruit juice used as defined in Section 2.2. Such food name may only be used for juices conforming to the definition in Section 2.1.2 of this standard and which otherwise conform to this standard.

7.1.1.3 Nectar

The name of this product shall be “__ Nectar” or “Nectar of ____” the blank being filled with the species of the applicable fruit juice or fruit purée ingredients in Section 2.2.

7.1.2 Additional Requirements

The following additional specific provisions shall apply:

7.1.2.1 For fruit juices, if the product contains or is prepared from concentrated juice and water or the product is prepared from juice from concentrate and juice, the words “from concentrate” must be entered close to the product name, standing out well from any background, in clearly visible characters.

7.1.2.2 For fruit juices, if the product is prepared by physically removing at least 50% of the water from the fruit juice, it must be labeled “concentrated” juice.

7.1.2.3 For fruit juice products defined in Section 2.1, where one or more of the optional sugars as defined by the Codex General Standards for sugar are added or permitted sweeteners are added, the juice name shall include the statement called "sugars added " or "sweetened" in conjunction with the food name.

7.1.2.4 Where concentrated fruit juice or concentrated nectar is to be reconstituted before consumption as fruit juice or nectar, the label shall bear appropriate directions for reconstitution on a volume/volume basis with water at a minimum in accordance with the applicable single strength Brix value in Section 3.1.1(b).

7.1.2.5 Distinct varietal denominations may be used in conjunction with the common fruit names on the label.

7.1.2.6 Fruit juice and nectar that have been preserved using physical processes may include a description of such process as part of the food name (i.e. "pasteurised," "frozen," etc.)

7.1.2.7 Fruit nectars shall be conspicuously labelled with a declaration of "fruit content __%" with the blank being filled with the percentage of puree and/ or fruit juice computed on a volume/volume basis. The words "fruit content __%" shall appear in close proximity to the name of the food.

7.2 Non-Retail Containers

Information for non-retail containers not destined to final consumers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturers packers or distributors, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer or distributor may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.]

8. METHODS OF ANALYSIS AND SAMPLING

[under development]

**PROPOSED DRAFT REVISED CODEX GENERAL STANDARD FOR VEGETABLE JUICES
CODEX STAN 179-1991
(At Step 3)**

1. SCOPE

This standard applies to all vegetable juices as defined below.

2. DESCRIPTION

2.1 “Vegetable juice” is the liquid unfermented but fermentable product or lactic acid fermented product intended for direct consumption obtained from the edible part of one or more sound vegetables and preserved exclusively by physical means⁸. The juice shall be free from skins, seeds and other coarse parts of the vegetables. It may be clear, turbid or pulpy. It may have been concentrated and reconstituted with water suitable for the purpose of maintaining the essential composition and quality factors of the juice.

2.2 Vegetables for the purpose of the standard are: the parts of edible plants including roots, corms and tubers (e.g. carrots, garlic and potatoes), stems and shoots (e.g. asparagus), leaves and flowers (e.g. spinach, cauliflower) and legumes (e.g. peas). Pumpkins and rhubarb are also considered as being vegetables for the purpose of this standard.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1 ORGANOLEPTIC PROPERTIES**

The product shall have the characteristic colour, aroma and flavour of the vegetables from which it has been prepared taking into consideration the addition of ingredients and possible lactic acid fermentation. Natural volatile constituents may be restored to the juice. They shall be derived from the same types of vegetables used in the manufacture of the product.

3.2 USE OF CONCENTRATE

The addition of concentrated vegetable juice is permitted.

3.3 BLANCHING AND WASHING

The vegetables shall retain no more water from these operations than technologically unavoidable.

3.4 INGREDIENTS

The following ingredients may be used:

- a) food grade salt, as defined in the Codex Standard for Food Grade Salt (CX-STAN 150-1985, Rev.1-1997);
- b) vinegar, except in vegetable juices treated by lactic acid fermentation;
- c) sugars in dry form and honey as defined in the Codex Standard for Sugars (CX-STAN 212-1999);
- d) seasoning, spices and herbs;
- e) fruit or fruit based products from which the essential elements of the fruit have not been extracted;
- f) whey or lactoserum having undergone lactic fermentation, not more than 100 g/kg.

4. FOOD ADDITIVES

	Function	Maximum level
300	L-ascorbic acid	400 mg/kg in the final product
330	Citric acid	Limited by GMP
270	Lactic acid (not in products having undergone lactic acid fermentation)	Limited by GMP
620	Glutamic acid and its sodium or potassium salt	Limited by GMP
296	Malic acid	Limited by GMP

⁸ For the purpose of this standard and at this time preservation by physical means does not include ionizing radiation.

Function	Maximum level
290 Carbon dioxide	Limited by GMP
Natural flavour obtained from seasonings, spices, herbs and fruit juices	Limited by GMP

5. CONTAMINANTS

5.1 HEAVY METALS

The products covered by the provisions of this standard shall comply with those maximum levels established by the Codex Alimentarius Commission.

5.2 PESTICIDE RESIDUES

The products covered by the provisions of this standard shall comply with those maximum residue limits established by the Codex Alimentarius Commission for the respective vegetables.

6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2 The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

7. LABELLING

7.1 CONTAINERS DESTINED FOR THE FINAL CONSUMER

In addition to the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 2-1999) the following specific provisions apply:

7.1.1 The Name of the Food

The name of the food shall be "x juice" or "juice from x" in which "x" is the name(s) of the vegetable(s) used. In the case of juices made from two or more types of vegetables the product may be called "vegetable juice cocktail". If ingredients are used in quantities which characterize the product a declaration in the name of the food shall be made, e.g. "sweetened x juice" or "spiced x juice". If a juice has been obtained by lactic acid fermentation this fact shall be declared by naming the juice "lactic acid fermented" or by putting the words "obtained by lactic acid fermentation" in close proximity to the name of the food.

7.1.2 List of Ingredients

7.1.2.1 A complete list of ingredients shall be declared on the label in accordance with Section 4.2 of the General Standard, except that water added for reconstitution of concentrates need not be declared.

7.1.2.2 If juices have been made from concentrates, this shall be declared in the list of ingredients as follows: "x juice made from concentrate" or "reconstituted x juice" or "x juice made from concentrated x juice".

7.1.3 Additional Requirements

7.1.3.1 No vegetables or vegetable products may be represented pictorially on the label except those present in the product.

7.1.3.2 Where the product contains more than 2 g/kg of carbon dioxide the term "carbonated" shall appear on the label.

7.1.3.3 No claims shall be made in respect of "Vitamin C" nor shall the term "Vitamin C" appear on the label unless the product contains such quantity of "Vitamin C" as would be accepted by national authorities in the country in which the product is sold as warranting such claim or the use of such term. If this is the case, nutrient declaration shall be in accordance with the *Codex Guidelines on Nutrition Labelling* (CAC/GL 2-1985 (rev. 1-1993) and the *Codex Guidelines for the Use of Nutrition Claims* (CAC/GL 23-1997).

7.1.3.4 Where the vegetable juice has been prepared from raw material treated with ionizing radiation, it shall be labelled in accordance with Section 5.2.2 of the General Standard.

7.2 NON-RETAIL CONTAINERS

Information for non-retail containers shall either be given on the container or in accompanying documents, except that the name of the product, lot identification and name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8. METHODS OF ANALYSIS AND SAMPLING

[under development]