

CODEX ALIMENTARIUS COMMISSION

E



Food and Agriculture
Organization of the
United Nations



World Health
Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

REP20/NASWP

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

43rd Session

FAO Headquarters, Rome Italy

06 – 11 July 2020

**REPORT OF THE 15th SESSION OF THE FAO/WHO COORDINATING COMMITTEE FOR
NORTH AMERICA AND SOUTH WEST PACIFIC**

Port Vila, Vanuatu

16 - 20 September 2019

TABLE OF CONTENTS

Summary and Status of Work.....	page iii
List of Acronyms	page v
Report of the 15 th Session of the FAO/WHO Coordinating Committee for North America and South West Pacific.....	page 1
	<u>Paragraphs</u>
Introduction	1
Opening of the Session	2- 8
Adoption of the Agenda (Agenda Item 1)	9
Keynote Address – <i>Managing food safety in an era of accelerated climate change</i> (Agenda Item 2)	10 - 15
Food safety and quality situation in the countries of the region: current and emerging issues in the region (Agenda Item 3.1)	16 - 20
The future of food safety: outcome of the first FAO/WHO/AU International Food Safety Conference and the International Forum on Food Safety and Trade – What next? (Agenda Item 3.2)	21 - 28
Food safety and quality situation in the countries of the region: Use of the online platform for information sharing on food safety control systems; status of information and future plans/prospects (Agenda Item 3.3)	29 - 34
Use of Codex standards in the region (Agenda Item 4).....	35 - 42
Matters referred from the Codex Alimentarius Commission and other Codex Committees (Agenda Item 5)	43 - 48
Codex Work Relevant to the Region (Agenda Item 6)	49 - 51
Implementation of the Codex Strategic Plan 2014-2019 (Agenda Item 7.1)	52 - 58
Codex Strategic Plan 2020 - 2025 – Roadmap to implementation (Agenda Item 7.2)	59 - 67
Codex Communications work plan (Agenda Item 8)	68 - 71
Proposed draft regional standard for fermented noni fruit juice (Agenda Item 9)	72 - 83
Proposed draft regional standard for kava products for use as a beverage when mixed with water (Agenda Item 10)	84 - 96
Nomination of the Coordinator (Agenda Item 11)	97 - 99
Other business (Agenda Item 12)	100
Date and place of next session (Agenda Item 13)	101
Appendices	
Appendix I - List of Participants	page 12
Appendix II – Proposed draft regional standard for fermented noni fruit juice	page 16
Appendix III – Proposed draft regional standard for kava products for use as a beverage when mixed with water	page 20

SUMMARY AND STATUS OF WORK

Responsible Party	Purpose	Text/Topic	Step	Para.
Members ¹ , CCEXEC79 and CAC43	Adoption	Proposed draft regional standard for fermented noni fruit juice	5	83(i), App.II
		Proposed draft regional standard for kava products for use as a beverage when mixed with water	5 ¹	96(i) and (ii), App.II I
CCCF, JECFA	Safety evaluation	Request JECFA to retain scopoletin on the priority list and to call upon Member countries to generate and submit data to support the conduct of the safety evaluation		83 (iii)
CCFA, CCFL, CCMAS	Endorsement	Relevant sections of the: (i) Proposed draft regional standard for fermented noni fruit juice (ii) Proposed draft regional standard for kava products for use as a beverage when mixed with water		83 (ii), 96 (iii), App.II , App.II I
CAC43	Appointment	CCNASWP15, on the proposal of Vanuatu, unanimously agreed to recommend to CAC43 that Fiji be appointed for a first term as Regional Coordinator for North America and the South West Pacific.		98
FAO/WHO and Members	Information/ Action	<u>Keynote address</u> CCNASWP15 welcomed and noted the information contained in the keynote address; agreed to bring the issue to attention to other Codex committees by making the speech available via a CRD; and noted that food safety consequences of climate change should be considered when revising or developing Codex standards and other texts.		15
		<u>Food safety and quality situation in the countries of the region: emerging issues in the region</u> CCNASWP15 agreed that the outcome of the survey was relevant to the region and such studies would support or inform the implementation of the Codex Strategic Plan and the technical programmes of FAO and WHO; and reaffirmed the importance of developing a regional emerging issues framework.		20
		<u>The Future of Food Safety: Outcome of the First FAO/WHO/AU International Food Safety Conference and the International Forum on Food Safety and Trade - What next?</u> CCNASWP15 agreed that it was important to have food safety on the agenda of the upcoming sessions of the Executive Board of WHO and the World Health Assembly in 2020 as well as at FAO governing body meetings both at global and regional level and get commitment of Member States; encouraged Member countries to make available the summary and statement of the international food safety events available to high-level policy makers in their Governments and to encourage their representatives in WHO and FAO to prioritize food safety and support for Codex work; recommended that more funds should be made available for sustainable funding of scientific advice from the FAO/WHO expert bodies for use in the development of Codex standards. The Committee also stressed the importance of capacity building related to diagnostic testing and other food safety control activities, including scientific advice at the national level; and committed to use the occasion of the annual World Food Safety Day (WFSD) on June 7th to advocate for the food safety at the national level for consumer protection and public health, food security, economic development and trade and report on the activities through the WFSD webpage.		28

¹ Task the Coordinator to work with the Member countries of the region to resolve the few outstanding issues prior to CCEXEC79, so that the Coordinator, should consensus be achieved among the Member countries, can recommend omission of Steps 6 and 7 and submission for adoption at Step 8 at CAC43.

Responsible Party	Purpose	Text/Topic	Step	Para.
		<p><u>Food safety and quality situation in the countries of the region – Use of the online platform for information sharing on food safety control systems; status of information and future plans/prospects</u></p> <p>CCNASWP15 confirmed the usefulness of exchanging information on national food control systems and that the online platform was generally fit for this purpose; requested usage statistics of the online platform, as well as guidance on the level of detail required in responding to the questions; noted the commitment of several Member countries to complete their entries and publish the required information; and reiterated the availability of FAO, WHO and Codex Secretariat to provide assistance as required.</p>		34
	Information	<p><u>Use of Codex Standards in the region</u></p> <p>CCNASWP15 took note of the outcome of the survey and recognized the value of this information; agreed to support future surveys that preferably should be conducted on a biennial basis; and recommended that the comments made at the present session should be taken into account in future surveys.</p>		42
CAC, CCEXEC and Members	Information	<p><u>Codex work relevant to the region</u></p> <p>CCNASWP15 agreed that the topics identified above were relevant to the region; agreed to request CCCF to prioritize work on ciguatera; encouraged eligible Member countries to take advantage of the support offered by CTF2 and submit applications for round 4; and encouraged Member countries to participate in the work of CCPFV.</p>		51
Coordinator, Members and Codex Secretariat	Information/ Action	<p><u>Implementation of Codex Strategic Plan 2014-2019</u></p> <p>CCNASWP15 noted the achievements of the Strategic Plan 2014-2019 and the importance of using the lessons learned from monitoring and implementation as they embarked on the implementation of the Strategic Plan 2020-2025; requested Member countries to proactively provide information through the Regional Coordinator to facilitate the preparation of the final report of the Strategic Plan 2014-2019; noted the need to increase the contribution of the region to scientific advice work that underpinned Codex standards through capacity development and improved regional coordination; and acknowledged the ongoing challenges with participation in Codex meetings and in EWGs and agreed to use the existing mechanisms within Codex, i.e., web tools; coordination meetings before and during meetings; as well as look for innovative solutions to meet the challenges in the region and enhance their participation in ongoing work of Codex.</p>		58
		<p><u>Roadmap to Implementation of Codex Strategic Plan 2020 - 2025</u></p> <p>CCNASWP15 welcomed the Codex Strategic Plan 2020-2025; agreed that CCNASWP would focus on the implementation of activities aimed towards achieving Goals 1, 2 and 3 of the Strategic Plan; and encouraged all Member countries to participate in the EWG to ensure that the work plan was realistic and achievable in the next two years while also reflecting on the priority needs of the region.</p>		67(i), (ii) and (iv)
Coordinator, Members and Codex Secretariat	Action	<p>CCNASWP15 agreed to adopt the draft <u>Regional Communications Work plan 2020-2025</u> (Appendix I of CX/NASWP 19/15/11) and work towards its implementation; and liaise with the Codex Secretariat primarily through the RC to execute the communications work plan between now (CCNASWP15) and CCNASWP16.</p>		71
EWG (Vanuatu, Fiji)	Finalizing/ Submitting	<p><u>Roadmap to Implementation of Codex Strategic Plan 2020 - 2025</u></p> <p>CCNASWP15 agreed to establish an EWG, chaired by Vanuatu and co-chaired by Fiji, working in English, with the following terms of reference:</p> <ol style="list-style-type: none"> Refine the activities to be undertaken in the region to support the implementation of the Strategic Plan over the next two years taking into consideration the discussions at CCNASWP15; include the additional information required in the work plan on responsibilities, targets and approach for monitoring; and submit the proposed work plan for CCNASWP to the Codex Secretariat through the Regional Coordinator by 31st December 2019, for incorporation into the overarching work plan for implementation of the Strategic Plan 2020-2025 by the Strategic Planning sub-committee of CCEXEC. 		67(iii)

Responsible Party	Purpose	Text/Topic	Step	Para.
EWG (Tonga, Samoa)	Further advance	CCNASWP15 agreed to convene an EWG, to be chaired by Tonga and co-chaired by Samoa and working in English only, to further advance the draft regional standard for fermented noni fruit juice taking into account the discussions at CCNASWP15 (Annex II) for consideration at CCNASWP16.	6	83(iv)

LIST OF ACRONYMS

AMR	Antimicrobial Resistance
CAC	Codex Alimentarius Commission
CCCF	Codex Committee on Contaminants in Foods
CCEURO	FAO /WHO Coordinating Committee for Europe
CCEXEC	Executive Committee of the Codex Alimentarius Commission
CCFA	Codex Committee on Food Labelling
CCFL	Codex Committee on Food Labelling
CCMAS	Codex Committee on Methods of Analysis and Sampling
CCNASWP	FAO/WHO Coordinating Committee for North America and the South West Pacific
CCP	Codex Contact Point
CCPFV	Codex Committee on Processed Fruits and Vegetables
CRD	Conference Room Document
CTF	Codex Trust Fund
EWG	Electronic Working Group
FAO	Food and Agriculture Organization of the United Nations
JECFA	Joint Expert Committee on Food Additives
MRL	Maximum Residue Limit
NCC	National Codex Committee
PWG	Physical Working Group
RCCs	Regional Coordinating Committees
SIDS	Small Island Developing States
WHO	World Health Organization
WG	Working Group

INTRODUCTION

1. The FAO/WHO Coordinating Committee for North America and the South West Pacific (CCNASWP) held its 15th Session in Port Vila, from 16-20 September 2019, at the kind invitation of the Government of Vanuatu. Mr. Timothy Tumukon, Regional Coordinator of CCNASWP chaired the session, which was attended by delegates from 10 Member countries from the NASWP region, one Member country from outside the Region and Representatives of the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) as well as the Codex Secretariat. A complete list of participants, including FAO, WHO and the Secretariats, is given in Appendix I.

OPENING¹

2. The Director General of the Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity of Vanuatu, Mr. Moses Amos, welcomed delegates and opened the session on behalf of the Minister of Agriculture, Livestock, Forestry, Fisheries and Biosecurity, Mr. Matai Seremaiah Nawalu. Tribute was paid to late Honorable Prime Minister of Tonga, Akilisi Pohiva, and recently demised colleagues who were champions and pioneers of the Codex work in the South West Pacific sub-region.
3. The Director General highlighted the occurrence of food-borne illnesses and contaminants as key challenges in the Pacific islands and thanked the Codex Alimentarius Commission for developing standards, which are important for safeguarding public health and improving trade, in a fair, neutral and transparent manner. The Director General underscored that participation of the Pacific island countries in Codex work was low and needed to be improved so that their contribution in Codex standards formulation would be strengthened. The Director General expressed the hope that under the Codex Strategic Plan 2020-2025, activities would be implemented that would increase the rate of participation in Codex Electronic Working Groups (EWGs).
4. The Director General also urged the eligible Member countries of the region to submit strong individual and/or group applications for the current round of support from the Codex Trust Fund, noting that so far no country had managed a successful application since the launch of the Codex Trust Fund 2 (CTF2).
5. The Director General further emphasized the importance of the two proposed draft standards on the agenda of CCNASWP15, those of kava and noni juice, which when adopted, would be the first NASWP regional standards.
6. The Representative of FAO addressed the delegates and emphasized that food safety and standards will need to be improved in a complex environment that includes fast-paced drivers such as globalized trade, technology, urbanization and climate change. The Representative of FAO underscored that that sectoral approaches alone will not be sufficient and that food safety needs to be well integrated with national and regional agriculture and rural development programmes so as to have maximum positive impact on public health and trade.
7. The Representative of WHO addressed the delegates and highlighted the importance of Codex standards and the role the FAO/WHO Regional Coordinating Committees (RCCs) and their Members had to play in relation to food standards and food controls at both regional and global level. The Representative of WHO referred to the WHO estimates of the global burden of foodborne diseases, which showed that every year approximately 125 million people became ill and about 50,000 people died from contaminated food in the Western Pacific region, a significant proportion of which were children under the age of five.
8. Finally, a video message from the Chairperson of the Codex Alimentarius Commission, Mr. Guilherme da Costa, was presented to the Committee.

ADOPTION OF THE AGENDA (Agenda Item 1)²

9. CCNASWP15 adopted the Provisional Agenda as contained in CX/NASWP 19/15/1 as the Agenda for the Session.

KEYNOTE ADDRESS – “MANAGING FOOD SAFETY IN AN ERA OF ACCELERATED CLIMATE CHANGE” (Agenda Item 2)³

10. The Representative of FAO, speaking on behalf of FAO and WHO, introduced this item recalling the ongoing process of revitalization of the RCCs and the inclusion of a keynote address to stimulate discussion and information sharing on a topical issue of interest to the region.
11. The Honourable Minister of Foreign Affairs of Vanuatu, Mr. Ralph Regenvanu, delivered the keynote address highlighting the impact of climate change on global agricultural production and complex supply chains and the

¹ CRD2 (Opening speech, Government of Vanuatu); CRD5 (Opening remarks from FAO and WHO Representatives)

² CX/NASWP 19/15/1

³ CX/NASWP 19/15/2; CRD1 (Keynote address); CRD3 (Comments of Papua New Guinea)

need for dynamic and proactive processes at regional level to tackle the challenge that climate change poses to food safety. The Honourable Minister underlined that even as data and evidence on the effects of climate change on food safety was being collected, trade rejections could multiply because of insufficient controls from exporting countries as well as the lack of cause-effect evidence related to climate change. This could result in the Codex Committees having to rethink and redesign some Codex standards and other texts.

12. The keynote address was very much welcomed by the Committee as being timely and addressing the challenges that the Small Island Developing States (SIDS) are grappling with. The Committee reaffirmed that information on the effect of climate change on food safety and quality and food security needs to be generated and awareness raised at national and regional fora to attract more attention and resources.
13. The Committee noted that food safety consequences of climate change should be considered when developing or revising Codex standards and other texts.
14. One Observer informed the Committee that FAO/WHO Coordinating Committee for Europe (CCEURO) would be held in a few weeks and that the messages in the keynote address at CCNASWP15 would be brought to the attention of delegates.

Conclusions

15. CCNASWP15:
 - i. Welcomed and noted the information contained in the keynote address;
 - ii. Agreed to bring the issue to attention to other Codex committees by making the speech available via a CRD; and
 - iii. Noted that food safety consequences of climate change should be considered when revising or developing Codex standards and other texts.

FOOD SAFETY AND QUALITY SITUATION IN THE COUNTRIES OF THE REGION: CURRENT AND EMERGING ISSUES IN THE REGION (Agenda Item 3.1)⁴

16. The Representative of WHO, speaking on behalf of FAO and WHO, informed the Committee that this agenda item was a new way to facilitate a targeted discussion on critical and emerging food safety issues and priorities in the region. Its purpose was to draw the attention of CCNASWP to emerging issues of concern as well as the general food safety and quality situation in the region and confirmed that the information provided supported FAO and WHO's efforts to enhance food safety capacities and implement the Codex Strategic Plan, with specific linkage to Goal 1.
17. The Representative presented the current and emerging issues identified by the survey, which were: limited support to manage food regulatory systems; climate change; innovative food technologies; non-communicable diseases; limited National Codex Committee (NCC) support mechanisms; risk communication; increased foodborne disease transmission; pesticides residues on food crops (MRLs); AMR; veterinary drug residues; and other human and environmental health risks.
18. Members were encouraged to provide their feedback on: (i) actions already underway in countries and the region as the result of the identification of the emerging issues; (ii) challenges in identifying and reporting emerging issues; and (iii) perspectives on the way forward.
19. The proposed recommendations as given in the document were also highlighted, in particular the developing of a regional emerging issues framework and strategies to address them. It was noted that, while the survey technology was useful, it had drawbacks compared to the process used to compile comments in the past, such as the inability to attribute comments to specific countries. Member countries also highlighted a concern whether certain responses to the survey were questioning scientific work undertaken by Codex advisory and standard setting bodies. It was pointed out that Codex sets food safety standards based on scientific evidence and risk assessments that take into account both long term and short term exposure, in order to protect consumer health. Member countries also requested the highlighting of certain issues that needed to be reflected more strongly such as the safety and quality of food supplied as aid during emergencies, adulteration, food fraud and microbiological hazards.

Conclusions

20. CCNASWP15:
 - i. Agreed that the outcome of the survey was relevant to the region and such studies would support or inform the implementation of the Codex Strategic Plan and the technical programmes of FAO and WHO; and

⁴ CX/NASWP 19/15/3

- ii. Reaffirmed the importance of developing a regional emerging issues framework.

THE FUTURE OF FOOD SAFETY: OUTCOME OF THE FIRST FAO/WHO/AU INTERNATIONAL FOOD SAFETY CONFERENCE AND THE INTERNATIONAL FORUM ON FOOD SAFETY AND TRADE – WHAT NEXT? (Agenda Item 3.2)⁵

21. The Representative of FAO, speaking on behalf of FAO and WHO, introduced this item by calling the Committee's attention to the Chairperson's summary and the Joint Statement that was issued after the FAO/WHO/AU 'First International Food Safety Conference' in Addis Ababa, Ethiopia and the FAO/WHO/WTO 'International Forum on Food Safety and Trade' in Geneva, Switzerland. The events focused on national food control systems, the economic and health burden of food-borne illness especially on middle and low income countries, safe and sustainable food systems in an era of accelerated climate change, food standards and trade, the importance of new technologies and the role of consumers and how they could make safe and healthy choices. The presence of high-level leadership from several countries as well as FAO, WHO and WTO ensured that food safety was seen as an important priority without which SDG2 could not be achieved.
22. The Representative of WHO further mentioned that, to raise the profile and promote political engagement to address food safety concerns at the country level, it was important to have food safety on the agenda of WHO and FAO governing body meetings both at global and regional level and get commitment of Member States to this effect. The Representative informed the Committee that the next Executive Board of the WHO and the World Health Assembly Sessions are scheduled for February and May 2020, respectively.
23. CCNASWP members were invited to express their reaffirmation of the importance and relevance of the issues in the summaries to the region. They were further requested to reflect on: (a) their priority action areas in food safety for the next decade; and (b) concrete actions that member states, WHO and/or FAO should take forward for the next decade along with expected timelines for each area.
24. Member countries expressed that food safety was a critical component to advancing SDGs and it was also important to mainstream food safety to advance public health goals. The commitment from WHO and FAO to provide sustainable support for scientific advice was noted as critical. One delegation informed that they along with other co-sponsors will be submitting a document to the Governing Body of WHO (both Executive Board and the World Health Assembly in 2020) emphasizing the importance of food safety and the need for sustainable support towards this area. Other Member countries expressed support regarding the need to raise the profile of food safety in the governing bodies of both WHO and FAO at global as well as regional level so that more funds could be allocated for scientific advice and food safety capacity building by both the organizations. This would ensure higher visibility and better understanding by policymakers and high level officials of the strong linkage between food safety and public health.
25. CCNASWP15 encouraged Member countries to make available the summary and statement of the international food safety events to high-level policy makers in their Governments.
26. Member countries requested FAO, WHO and the Codex Secretariat to actively support countries in the implementation of technical and capacity building projects and the implementation of the Codex Strategic Plan 2020-2025. Members committed to develop proposals for consideration by the Codex Trust Fund and requested support.
27. Member countries agreed to use the occasion of the annual World Food Safety Day (WFSD) on June 7th to advocate for the food safety at the national level for consumer protection and public health, food security, economic development and trade and report on the activities through the WFSD webpage.

Conclusions

28. CCNASWP15:
 - i. Agreed that it was important to have food safety on the agenda of the upcoming sessions of the Executive Board of WHO and the World Health Assembly in 2020 as well as at FAO governing body meetings both at global and regional level and get commitment of Member States;
 - ii. Encouraged Member countries to make available the summary and statement of the international food safety events available to high-level policy makers in their Governments and to encourage their representatives in WHO and FAO to prioritize food safety and support for Codex work;
 - iii. Recommended that more funds should be made available for sustainable funding of scientific advice from the FAO/WHO expert bodies for use in the development of Codex standards. The Committee also stressed the importance of capacity building related to diagnostic testing and other food safety control activities, including scientific advice at the national level; and

⁵ CX/NASWP 19/15/4

- iv. Committed to use the occasion of the annual World Food Safety Day (WFSD) on June 7th to advocate for the food safety at the national level for consumer protection and public health, food security, economic development and trade and report on the activities through the WFSD webpage.

FOOD SAFETY AND QUALITY SITUATION IN THE COUNTRIES OF THE REGION: USE OF THE ONLINE PLATFORM FOR INFORMATION SHARING ON FOOD SAFETY CONTROL SYSTEMS; STATUS OF INFORMATION AND FUTURE PLANS/PROSPECTS (Agenda Item 3.3)⁶

29. The Representative of FAO introduced the agenda item on behalf of FAO and WHO, as part of the strategy for revitalizing the RCCs. The approach leading to the exchange of information between Member countries, and the modality (online platform), were designed to allow flexibility, and built on other existing instruments of FAO and WHO to ensure coherence and facilitate their use. Due to the limited response rate and the incompleteness of some submissions (e.g., unanswered questions, draft status), the Committee was asked specific questions to improve understanding of the perceived relevance of the platform to Member countries, the challenges faced, and the possible support that could be provided to alleviate these difficulties.
30. There was consensus that the online platform was a suitable replacement for the Circular Letter to gather information on the food safety and quality situation in countries of the region.
31. Delegates highlighted that one of the key challenges faced by some Member countries was the frequent turnover of the official holding of the position of Codex Contact Point (CCP) and a resulting lack of awareness of the platform. Furthermore, due to the high level of seniority of some CCPs, there was a need to delegate the role of populating the platform. The issue of ensuring that the information was current and the possibility of providing links to country websites for the information to be dynamic was also discussed.
32. The reasons why some Member countries only made partial information available on the online platform included insufficient knowledge of technical areas outside of the ministry in which the CCP was located. Furthermore, there was a lack of clarity concerning the level of detail required in responding to the questions and concerns were raised regarding resources needed to respond to some of the questions. Countries also requested statistics on the use of the platform to get a better idea of the type of demand the platform is trying to meet. Countries also advised that more discussion was needed prior to adding any additional questions, in particular concerning dynamic items such as critical and emerging issues.
33. The Committee noted the difficulties faced by CCPs and appreciated the commitment of some Member countries to populate the platform. It was reaffirmed that FAO, WHO and Codex are available to provide assistance. The Committee confirmed that inserting links to relevant websites can be an efficient approach that also helps to ensure the information stays up to date. Countries were encouraged to take a stepwise approach, commencing with readily available information and adding more when available.

Conclusions

34. CCNASWP15:
 - i. Confirmed the usefulness of exchanging information on national food control systems and that the online platform was generally fit for this purpose;
 - ii. Requested usage statistics of the online platform, as well as guidance on the level of detail required in responding to the questions;
 - iii. Noted the commitment of several Member countries to complete their entries and publish the required information; and
 - iv. Reiterated the availability of FAO, WHO and Codex Secretariat to provide assistance as required.

USE OF CODEX STANDARDS IN THE REGION (Agenda Item 4)⁷

35. The Codex Secretariat introduced the item, which is based on an online survey conducted by the Codex Secretariat in the context of revitalization of the RCCs. The aim of the survey was to gain some insight regarding the extent of use and relevance of Codex standards and difficulties related to the general use of Codex standards, and also to receive general feedback from Member countries on the usefulness of such surveys. The Secretariat noted that the current survey focused on Maximum Residue Limits (MRLs) for veterinary drug residues in foods and two Codex texts on Antimicrobial Resistance (AMR).
36. The Secretariat highlighted the good response rate to the survey (64%) in the NASWP region, noted that six of the nine respondents were SIDS, summarized the survey results, and invited the Committee to comment on the findings.

⁶ CX/NASWP 19/15/5

⁷ CX/NASWP 19/15/6; CRD3 (Comments of Papua New Guinea)

Discussion

37. The Committee expressed that the survey represented a useful tool to obtain information on the use of Codex standards, but it provided limited insight into the real situation.
38. One Member country informed the Committee that a key challenge is the difficulties in harmonization with Codex texts at the national level due to limited capacity and also highlighted that translation to local languages represented a constraint.
39. Another Member country noted that the current method and software did not allow the survey to be shared with other stakeholders, thus increasing the workload on the one responding to the survey; this impacts the response rate.
40. The Committee expressed overall support for conducting such surveys on a biennial basis.
41. It was mentioned that the use of Codex texts related to HACCP could be a topic for a future survey.

Conclusions

42. CCNASWP15:
 - i. Took note of the outcome of the survey and recognized the value of this information;
 - ii. Agreed to support future surveys that preferably should be conducted on a biennial basis; and
 - iii. Recommended that the comments made at the present session should be taken into account in future surveys.

MATTERS REFERRED FROM THE CODEX ALIMENTARIUS COMMISSION AND OTHER CODEX COMMITTEES (Agenda item 5)⁸

43. The Committee considered the information provided in documents CX/NASWP 19/15/7 and the Codex Secretariat presented the matters that were referred to CCNASWP for information or action, took note of the matters that were presented for information, and agreed to consider the following items referred for action under the other relevant agenda items:

Regular Review of Codex Work Management: Electronic Working Groups

44. The Committee noted the importance of examining barriers to active participation in EWGs and identifying possible solutions, and agreed to consider this matter under Agenda Item 7.1.

Codex Strategic Plan 2020-2025

45. The Committee noted this matter would be considered under Agenda Item 7.2 and Agenda Item 8.

Coordinator for North America and South West Pacific

46. The Committee noted that Vanuatu as the current Coordinator would hold office until the end of the 43rd session of the Codex Alimentarius Commission (CAC43) (2020), and agreed that this matter would be considered under Agenda Item 11.

Committee on Processed Fruits and Vegetables (CCPFV)

47. The Committee noted that Members were encouraged to participate in the work of CCPFV and agreed that this matter would be considered under Agenda Item 6.

Priority list of contaminants and naturally occurring toxicants for evaluation by JECFA

48. The Committee acknowledged the enquiry from the 13th session of the Codex Committee on Contaminants in Foods (CCCF13) to NASWP on the retention of scopoletin on the priority list of the Joint Expert Committee on Food Additives (JECFA) and agreed to discuss this matter under Agenda Item 9.

CODEX WORK RELEVANT TO THE REGION (Agenda Item 6)⁹

49. The Regional Coordinator introduced the agenda item and presented the key issues related to Codex work that are of relevance to the region.
50. The Committee supported the observations and recommendations of the Regional Coordinator and noted the following views on some of the recommendations and issues.
 - i. *Codex Strategic Plan 2020-2025*

⁸ CX/NASWP 19/15/7; CRD3 (Comments of Papua New Guinea)

⁹ CX/NASWP 19/15/8; CRD3 (Comments of Papua New Guinea)

This topic of high relevance to the region would be further discussed under Agenda Item 7.2.

ii. *Codex Trust Fund (CTF2) programmes*

Member countries acknowledged the opportunities that CTF2 offered to them in order to strengthen Codex work at the national level, and expressed interest in seeking funding while also emphasizing the need for support in developing successful applications. The Committee was reminded of the fact that whilst there CTF2 donor countries in the region, there are not yet any beneficiary countries, and that the application period was currently open until end of November 2019.

iii. *Cadmium in chocolate containing or declaring <30% total cocoa solids on a dry matter basis'*

The topic is of relevance to SIDS as the sub-region is also an exporter of chocolate. CCCF has concluded that the proposed maximum level for cadmium in chocolate containing or declaring <30% total cocoa solids on a dry matter basis is safe and these recommended levels should be adopted at CAC43 if no new data suggesting otherwise are presented.

iv. *Aflatoxins in foods*

Aflatoxin in food is of relevance to the region, and can be problematic both in regard to import and export.

v. *Ciguatera food poisoning*

It was recognized that ciguatera food poisoning was one of the most important foodborne diseases in SIDS. The Committee emphasized the need to inform CCCF of the importance of addressing this important public health problem following the release of the report of the *Ad-hoc* FAO/WHO Expert Meeting on Ciguatera Food Poisoning.

vi. *Work of CCPFV*

The Committee was reminded of that CCPFV, a Committee working by correspondence, had several EWGs, some of which could be of interest for Member countries to participate in.

Conclusions

51. CCNASWP15:

- i. Agreed that the topics identified above were relevant to the region;
- ii. Agreed to request CCCF to prioritize work on ciguatera;
- iii. Encouraged eligible Member countries to take advantage of the support offered by CTF2 and submit applications for round 4; and
- iv. Encouraged Member countries to participate in the work of CCPFV.

IMPLEMENTATION OF THE CODEX STRATEGIC PLAN 2014 – 2019 (Agenda Item 7.1)¹⁰

52. The Codex Secretariat introduced the agenda item, noting that the term of the Codex Strategic Plan 2014-2019 was ending and that there were many valuable lessons to be learned from the monitoring and implementation of the plan that needed to be carried forward when implementing the Codex Strategic Plan 2020-2025. The Committee was informed that a final report on the implementation of the Strategic Plan 2014-2019 would be presented to CAC43, for which input was required from the region.
53. The Secretariat reminded delegates of the important role that Member countries play in both monitoring and implementation and requested members to agree on a suitable mechanism through which they could regularly report to the Codex Secretariat on progress made.
54. As a follow up to the regular review of Codex work management on EWGs, the Secretariat recalled the recommendation of CAC40 to work with regional coordinators and committees to examine barriers to active participation and identify possible solutions. Discussions highlighted that impediments to participation in EWGs included coordination challenges at the national level, weak Codex Contact Point structures, lack of funds to support Codex work and limited communication between CCPs in SIDS.
55. The Committee conveyed its appreciation to the Codex Secretariat for the workshops organized on Codex online tools to support strengthening the Codex work at national and regional levels.
56. There was a clear recognition among Member countries that they needed to find ways of participation that worked in the context of their country. It was noted that both EWGs established by CCNASWP reported challenges on participation, and efforts were needed to address this, as newly established EWGs embarked

¹⁰ CX/NASWP 19/15/9; CRD3 (Comments of Papua New Guinea)

on their work. The ongoing efforts of the Codex Secretariat to provide support to address the technical issues were appreciated and any initiative that could assist the CCPs in their management and communication role was welcomed.

57. The need for further strengthening of the CCPs and the national Codex structures was emphasized and FAO and WHO were encouraged to provide more support for capacity building in this field. The opportunities that the CTF2 offers were highlighted.

Conclusions

58. CCNASWP15:
- i. Noted the achievements of the Strategic Plan 2014-2019 and the importance of using the lessons learned from monitoring and implementation as they embarked on the implementation of the Strategic Plan 2020-2025;
 - ii. Requested Member countries to proactively provide information through the Regional Coordinator to facilitate the preparation of the final report of the Strategic Plan 2014-2019;
 - iii. Noted the need to increase the contribution of the region to scientific advice work that underpinned Codex standards through capacity development and improved regional coordination; and
 - iv. Acknowledged the ongoing challenges with participation in Codex meetings and in EWGs and agreed to use the existing mechanisms within Codex, i.e., web tools; coordination meetings before and during meetings; as well as look for innovative solutions to meet the challenges in the region and enhance their participation in ongoing work of Codex.

CODEX STRATEGIC PLAN 2020 – 2025: ROADMAP TO IMPLEMENTATION (Agenda Item 7.2)¹¹

59. The Codex Secretariat introduced the item, recalled that CAC42 had adopted the Codex Strategic Plan 2020-2025; highlighted some of the key differences with the Codex Strategic Plan 2014-2016; and noted the flexibility the new Strategic Plan affords in terms of its implementation. The Secretariat emphasized the shared ownership and responsibility for implementation of the strategic plan among Codex Members and Observers, Codex subsidiary bodies and the Codex Secretariat, host country secretariats and chairpersons. The Secretariat reminded the Committee that the Executive Committee of the Codex Alimentarius Commission (CCEXEC) had established a sub-committee to oversee and facilitate the development of the work plan for the implementation of the Strategic Plan 2020-2025. It also reminded the delegates of the request to CCNASWP to provide details on the activities it would undertake to support the implementation of the Strategic Plan 2020-2025 over the next 2 years.

Discussion

60. The Chairperson recalled that the Committee had established an in-session WG to address this request. The WG prioritized activities under Goals 1, 2 and 3 for the next two years for the region and formed groups that consisted of relevant Member countries to discuss activities that were intended to be implemented.
61. The WG identified activities to address Goal 1 such as strengthening the National Codex Committee (NCC); improving the performance of the CCPs by assigning qualified staff to that position; providing sufficient funding and resources; improving the linkages with the Codex Secretariat; and establishing and participating in the Pacific Islands EWG.
62. In order to address Goal 2, the WG identified activities such as hosting a regional workshop with support from FAO and WHO on the use of expert scientific advice in the development of Codex standards; developing and implementing a work plan to generate relevant data to elaborate Codex standard, specifically referring to scopoletin in the regional standard for fermented noni fruit juice; and promote sustainable funding for scientific advice for use by Codex.
63. The WG identified activities to address Goal 3 such as the need to deal with lack of effective enforcement of Codex standards; coordination among relevant authorities; awareness of rules and responsibilities; ownership; and resources. The WG also stated that the special needs of SIDS should be recognised.
64. Delegations expressed their appreciation for the work of the WG and indicated their general agreement with the prioritized goals while noting that in two years' time these priorities could be revised. Reflecting on the approaches that the WG proposed for each goal, the Member countries expressed the view that efficient access to CCP should be ensured, that applications to CTF2 should be promoted, and that education is key to raise awareness about Codex standards.
65. FAO and WHO urged Member countries to increase focus on food safety, and offered to explore funding opportunities for capacity building activities.

¹¹ CX/NASWP 19/15/10; CRD3 (Comments of Papua New Guinea)

66. Considering the need to refine the activities as well as define responsible parties, the Committee agreed with the proposal to establish an EWG to continue the work.

Conclusions

67. CCNASWP15:
- i. Welcomed the Codex Strategic Plan 2020-2025;
 - ii. Agreed that CCNASWP would focus on the implementation of activities aimed towards achieving Goals 1, 2 and 3 of the Strategic Plan;
 - iii. Agreed to establish an EWG, chaired by Vanuatu and co-chaired by Fiji, working in English, with the following terms of reference:
 - a. refine the activities to be undertaken in the region to support the implementation of the Strategic Plan over the next two years taking into consideration the discussions at CCNASWP15;
 - b. include the additional information required in the work plan on responsibilities, targets and approach for monitoring; and
 - c. submit the proposed work plan for CCNASWP to the Codex Secretariat through the Regional Coordinator by 31st December 2019, for incorporation into the overarching work plan for implementation of the Strategic Plan 2020-2025 by the Strategic Planning sub-committee of CCEXEC.
 - iv. Encouraged all Member countries to participate in the EWG to ensure that the work plan was realistic and achievable in the next two years while also reflecting on the priority needs of the region.

CODEX COMMUNICATIONS WORK PLAN (Agenda Item 8)¹²

68. The Codex Secretariat introduced the item referring to the Codex Strategic Plan 2020-2025 Goal 3 and recalling CCEXEC74 (Rome, 2017) support for “the need for members to contribute [to the] development and implementation” of the current Codex communications work plan and “the potential for greater engagement and impact through tailored collaboration with the FAO/WHO Coordinating Committees”¹³.
69. The Codex Secretariat highlighted the opportunities that both social and traditional media offered for raising awareness of Codex issues whether at the highest political level or when reporting, for example, on technical and capacity building initiatives. The Secretariat reiterated the availability of the communications team in the Codex Secretariat to engage with Member countries and the Regional Coordinator to deliver on the communications work plan, also through the creation of rapid communications groups with tools such as WhatsApp which are widely used effectively throughout the region.
70. The Committee acknowledged the importance of prioritising regional Codex communications, expressed broad support for the communication initiatives undertaken and for the work plan presented.

Conclusions

71. CCNASWP15 agreed to:
- i. Adopt the draft Regional Communications Work plan 2020-2025 (Appendix I of CX/NASWP 19/15/11) and work towards its implementation; and
 - ii. Liaise with the Codex Secretariat primarily through the RC to execute the communications work plan between now (CCNASWP15) and CCNASWP16.

PROPOSED DRAFT REGIONAL STANDARD FOR FERMENTED NONI FRUIT JUICE (Agenda item 9)¹⁴

72. Tonga, as the Chair of the EWG, introduced the item and highlighted the progress made in preparation of the proposed draft regional standard and the outstanding issues to be addressed as contained in document CX/NASWP 19/15/12.
73. The Committee discussed the proposed draft regional standard section by section, taking into account comments submitted, made appropriate editorial corrections and took decisions as outlined in the following paragraphs.

¹² CX/NASWP 19/15/11; CRD3 (Comments of Papua New Guinea)

¹³ REP18/EXEC1 para 9

¹⁴ CX/NASWP 19/15/12; CX/NASWP 19/15/12 Add.1; CRD3 (Comments of Papua New Guinea); CRD4 (Comments of United States of America)

74. CCNASWP15, in response to the request from CCCF13, confirmed that they wished to retain scopoletin on the JECFA priority list and called upon Member countries to generate and submit suitable data for the evaluation, which addresses both toxicity and exposure. The Committee also asked FAO and WHO to organize a new call for data for the safety evaluation of scopoletin. The Representative of FAO reminded that a full dataset including exposure and toxicity is required.

Discussion

75. The Committee agreed to the Scope (Section 1); Contaminants (Section 5); Hygiene (Section 6); and Weights and measures (Section 8) of the proposed draft regional standard.

Description

76. One Member country sought clarification whether this standard could be applied also to the powdered form of noni. The Codex Secretariat referred to the project document which clearly stated that this regional standard would apply only for liquid form of noni. A new work proposal would be needed should the Committee decide it wished to broaden the scope. The Committee agreed on pursuing the development of the standard based on the current project document.

Essential Composition and Quality Factors

77. The Committee noted that information on moisture was not essential for the standard. One Member country expressed concern on setting a given range for Brix due to discrepancy with its national regulation. Consequently, the Committee agreed to set only a minimum level as 5.5% Brix to ensure inclusiveness. Further, the Committee agreed to establish ethanol level as less than 0.5% rather than specifying an acceptable range.
78. It was proposed that scopoletin be moved from “Essential Composition and Quality Factors” to the section for “Contaminants” and the need to retain it on the priority list of JECFA was underlined. The Committee agreed to keep scopoletin in the “Essential Composition and Quality Factors” with an additional statement that its level must be as low as technologically feasible until a safe level is established by JECFA in a footnote.

Food Additives

79. One Member country proposed to specify the food category of the product as 14.2.7 “Aromatized alcoholic beverages” in accordance with the *General Standard for Food Additives* (CXS 192-1995). Some Member countries stressed that noni fruit juice is commonly produced without using food additives. The Committee agreed that no food additives were permitted to be used.

Methods of Analysis and Sampling

80. The Committee noted that relevant methods of analysis and sampling provided by the *Recommended Methods of Analysis and Sampling* (CXS 234-1999) shall be used.

Annex

81. The Committee was reminded that an Annex is an integral part of the standard and thus it should only include what is necessary. There was agreement that the method to identify scopoletin and deacetylasperulosidic acid should be retained in Annex A and Annex B, respectively, while Annex C was deleted.
82. One Member country suggested adding details to the preparation of samples as well as correcting the methodology for thin layer chromatography analysis. The Committee agreed to retain the proposal in the square brackets for further consideration.

Conclusion

83. CCNASWP15 agreed to:
- i. Forward the proposed draft regional standard for fermented noni fruit juice to CAC43 for adoption at Step 5 (Appendix II);
 - ii. Forward the draft provisions for Food Additives, Labelling and Methods of Analysis and Sampling to the Codex Committee on Food Additives (CCFA), Codex Committee on Food Labelling (CCFL) and Codex Committee on Methods of Analysis and Sampling (CCMAS), respectively, for endorsement;
 - iii. Request JECFA to retain scopoletin on the priority list and to call upon Member countries to generate and submit data to support the conduct of the safety evaluation; and
 - iv. Convene an EWG, to be chaired by Tonga and co-chaired by Samoa and working in English only, to further advance the draft regional standard taking into account the discussions at CCNASWP15 (Annex II) for consideration at CCNASWP16.

PROPOSED DRAFT REGIONAL STANDARD FOR KAVA PRODUCTS FOR USE AS A BEVERAGE WHEN MIXED WITH WATER (Agenda item 10)¹⁵

84. Vanuatu as the Chair of the EWG introduced the item and highlighted the progress made in preparation of the proposed draft regional standard and the outstanding issues to be addressed as contained in document CX/NASWP 19/15/13.

85. The Committee agreed to discuss the proposed draft regional standard section by section, taking into account comments submitted, made appropriate editorial corrections and took decisions as outlined in the following paragraphs.

Discussion

86. The Committee agreed to the Scope (Section 1) and Contaminants (Section 5) of the draft standard.

Title

87. The Committee agreed that the title be “Proposed draft regional standard for kava products for use as a beverage when mixed with water”.

Description

88. The Committee noted that the requirement for basal stems to be used for producing kava products to be up to the first node on each branch should be included in the text rather than as a footnote.

Essential Composition and Quality Factors

89. The Committee scrutinized and amended the list of examples of terms used to describe Noble varieties of kava.

90. The Committee further considered chemical and physical characteristics for fresh and dried kava products and decided to delete the requirements for flavokavin since the standard was aimed for the products made solely from Noble varieties, which had only negligible amounts of flavokavin, if any. One Member country expressed the view that moisture content is important and therefore a provision for moisture was retained in the document. One Member country requested more time to consult with national experts regarding kavalactone and flavokavin.

91. The Committee agreed to add a requirement regarding kava products being free from soil and foreign materials to the draft standard.

92. Based on information provided by the Codex Secretariat, the Committee decided not to include provisions for nutrition in the proposed draft standard.

Food Additives

93. The Committee agreed that no food additives including carry-over are allowed, and consequently deleted the part of the sentence relating to permitting carry-over of food additives.

Labelling

94. The Committee considered the name of the product and agreed that, while the name of the food must be clearly stated, the name of the variety(ies) of kava plant from which the kava product was derived, should be optional.

95. The Committee was reminded of the ongoing work on guidance for labelling of non-retail containers in CCFL. The Committee nevertheless agreed to align the section with the current guidance in the Procedural Manual.

Conclusions

96. CCNASWP15 agreed to:

- i. Forward the proposed draft regional standard to CAC43 for possible adoption at Step 5 (Appendix III);
- ii. Task the Coordinator to work with the Member countries of the region to resolve the few outstanding issues prior to CCEXEC79, so that the Coordinator, should consensus be achieved among the Member countries, can recommend omission of Steps 6 and 7 and submission for adoption at Step 8 at CAC43 (2020); and
- iii. Forward the draft provisions for Food Additives, Labelling, and Methods of Analysis and Sampling to CCFA, CCFL and CCMAS, respectively, for endorsement.

¹⁵ CX/NASWP 19/15/13; CX/NASWP 19/15/13 Add.1; CRD3 (Comments of Papua New Guinea)

NOMINATION OF THE COORDINATOR (Agenda Item 11)¹⁶

97. The Codex Secretariat introduced the item.
98. The Committee, on the proposal of Vanuatu, unanimously agreed to recommend to CAC43 that Fiji be appointed for a first term as Regional Coordinator for North America and the South West Pacific.
99. Fiji thanked all Delegations for their support and accepted the nomination.

OTHER BUSINESS (Agenda Item 12)

100. The Committee noted that no other business had been proposed.

DATE AND PLACE OF NEXT SESSION (Agenda Item 13)

101. The Committee was informed that its 16th Session would be held in approximately two years' time and that more detailed arrangements would be communicated following the appointment of the Coordinator by CAC43 in consultation with the Codex Secretariat.

¹⁶ CX/NASWP 19/15/14

APPENDIX I

**LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS
LISTA DE PARTICIPANTES**

CHAIRPERSON – PRÉSIDENT – PRESIDENTE

Mr Timothy Tumukon
Regional Coordinator for NASWP
Bio-laef
Port Vila

MEMBER COUNTRIES – PAYS MEMBRES – PAÍSES MIEMBROS

AUSTRALIA - AUSTRALIE

Ms Usha Sriram-Prasad
Director, Codex Contact Point
Department of Agriculture
Canberra, ACT

Mrs Danielle Davis
Assistant Director, Codex Contact Point
Department of Agriculture
Canberra, ACT

CANADA - CANADÁ

Mrs Alison Wereley
Senior Policy Analyst
International Affairs Branch
Canadian Food Inspection Agency
Ottawa

FIJI - FIDJI

Mr Jale Sigarara
Assistant Minister
Ministry of Agriculture
Suva

Mr Jone Sovalawa
Deputy Secretary
Ministry of Agriculture
Suva

Mr Malakai Masi
Farmers Representative
Farmers
Suva

Mr Praveen Udishwar Narayan
Kava Exporter
Private Sector
Suva

Mr Kemueli Seuseu
Government Food Analyst
Ministry of Agriculture
Suva

Mr Tanuvasa Semy Siakamotu
Biosecurity and Environmental Safeguard Advisor
PHAMA Plus Program
Suva

Mrs Losalini Leweniqila Toganivalu
Fiji National Coordinator
PHAMA Plus Program
Suva

Mr Vio Veretawatini
Senior Agriculture Officer
Agriculture
Suva

Mrs Taina Waqaliva
Senior Food Auditor
Ministry of Health
Suva

**NEW ZEALAND - NOUVELLE-ZÉLANDE -
NUEVA ZELANDIA**

Mr Raj Rajasekar
Senior Programme Manager (Codex, FAO)
Ministry for Primary Industries
Wellington

Ms Lisa Ralph
Senior Policy Analyst
Ministry for Primary Industries

**PAPUA NEW GUINEA - PAPOUASIE-
NOUVELLE-GUINÉE - PAPUA NUEVA GUINEA**

Ms Geno Geno
Senior Monitoring & Evaluation Officer
Department of Agriculture and Livestock
Port Moresby

Mr Silas Jonathan
Co-ordinator - Food Safety
National Capital District Commission
Port Moresby

Mr Isowa More
Chief Health Surveyor
National Capital District Commission
Port Moresby

SAMOA

Mr Fepuleai Roger Toleafoa
Assistant Chief Executive Officer / Samoa CCP
Ministry of Commerce, Industry and Labour
Apia

Ms Muagututia Elisapeta Ma Dar
Principal Codex Officer
Fair Trading, Codex Alimentarius, Consumer
Protection and Metrology
Apia

Mr Tagaloa Eddie Wilson
Member of the Samoa National Codex Committee
Samoa Association of Manufacturers and
Exporters
Apia

SOLOMON ISLANDS - SALOMON, ÎLES - SALOMÓN, ISLAS

Mrs Patricia Soqoilo
Ministry of Health and Medical Services
Honiara

Mr Jack Chottu
Chottu's Guadalcanal Products
Honiara

Mrs Shirly Mani
Sol Kava Exporter
Honiara

TONGA

Mr Toimoona Takataka
Lita Trading Co Ltd
Nukualofa

Mr. Manase Siua
Adriana Trading Co. Ltd
Eua

Ms. Luseane Taufu
Principal Agricultural Officer
Food Authority
Ministry of Agriculture, Food and Forests

UNITED STATES OF AMERICA - ÉTATS-UNIS D'AMÉRIQUE - ESTADOS UNIDOS DE AMÉRICA

Ms Mary Frances Lowe
U.S. Codex Manager
U.S. Codex Office,
U.S. Department of Agriculture
Washington, DC

VANUATU

Mr Moses John Amos
Director General
Ministry of Agriculture, Livestock, Forestry,
Fishes and Biosecurity.
Port Vila

Mr Roy Mickey Joy
Director General
Ministry of Trades, Industry, Tourism and Ni
Vanuatu Business
Port Vila

Ms Marie Bani
Environmental health officer
Ministry of Health
Port Vila

Mr Alick Berry
Executive Officer
Port Vila

Mr Lonny Bong
Director
Ministry of Agriculture
Port Vila

Mr Sid Boubekeur
Ministry of Tourism, Trade, Commerce, and Ni
Vanuatu Business
Port Vila

Mr Joseph Bruns
Bruns services
Port Vila

Ms Betsy Charlie
Senior Authorized Officer - Seafood Verification
Agency
Ministry of Agriculture, Livestock, Forestry,
Fisheries and Bio-security.
Port Vila

Mrs Carolyn Ernst
Owner
Yoku Farm / LIWG
Port Vila

Ms Nerida Hinge
Nutrition Officer
Ministry of Health
Port Vila

Mr John Stephen Hun
Sr. Traditional Knowledge Officer
Vanuatu Intellectual Property Office
Port Vila

Mr Alain Jacobe
Manager
Tebakor island Products Limited
Port Vila

Mr Sammy James
Principal Authorized Officer
Ministry of Agriculture, Livestock, Forestry,
Fishes and Biosecurity.
Port Vila

Mr Johnety Jerette
Foreign Affairs Rep
Ministry of Foreign Affairs
Port Vila

Mr Yan Johnny
Food safety Compliance officer
Ministry of Health
Port Vila

Mr Peter Judge
Trade officer
Ministry of Trades, Industry, Tourism and Ni
Vanuatu Business
Port Vila

Mr Emile Laban
Finance Manager
Ministry of Agriculture, Livestock, Forestry,
Fishes and Biosecurity.
Port Vila

Mr Vincent Lebot
CIRAD
Lugunville

Mr Jack Loughman
General Manager
Vanuatu Cooperative Business Network
Port Vila

Mr Michael Louze
Observer
Kava Industry
Port Vila

Mr Aaron Nako
Port Vila

Mr Joe Pakoa
Director
Ministry of Foreign Affairs
Port Vila

Mr Jimmy Rantes
Director
Ministry of Tourism, Trade, Commerce & Ni
Vanuatu Business
Port Vila

Mr Antoine Ravo Ravo
Director
Ministry of Agriculture, Livestock, Forestry,
Fishes and Biosecurity.
Port Vila

Mrs Meriam Seth Toalak
Director Biosecurity Vanuatu
Ministry of Agriculture, Livestock, Forestry,
Fishes and Biosecurity.
Port Vila

Mrs Nellie Wouleseje
Head Environmental Health Unit
Ministry of Health
Port Vila

Mrs Cornelia Wylie
CEO
Fine Foods
Port Vila

Brittlen Yosef
Registrar
Vanuatu Intellectual Property Office
Port Vila

**MEMBERS FROM OUTSIDE THE REGION/
MEMBRES EXTÉRIEURS À LA RÉGION /
MIEMBROS DE FUERA DE LA REGIÓN**

**UNITED KINGDOM - ROYAUME-UNI - REINO
UNIDO**

Mr Mike O'Neill
Head of Codex Policy and Strategy
Food Standards Agency
London

**FAO PERSONNEL
PERSONNEL DE LA FAO
PERSONAL DE LA FAO**

Mr Sridhar Dharmapuri
Senior Food Safety and Nutrition Officer
FAO Regional Office for Asia and the Pacific
Bangkok

Mr Ricardo Dominguez Llosa
Technical Advisor Project "Integrated Sustainable
Land and Coastal Management (FSP)"
(GCP/VAN/001/GFF)
Food and Agriculture Organization of the UN

Mr Graham Nimoho
Assistant FAO Representative in Vanuatu
Port Vila

Mr Dirk Schulz
Food Safety and Quality Officer
Food and Agriculture Organization of the UN
Rome

**WHO PERSONNEL
PERSONNEL DE L'OMS
PERSONAL DE LA OMS**

Ms Shashi Sareen
Food Safety Technical Officer
WHO Western Pacific Regional Office
Manila

**HOST GOVERNMENT SECRETARIAT -
SÉCRÉTARIAT DU GOUVERNEMENT HÔTE -
SECRETARÍA DEL GOBIERNO ANFITRIÓN**

Mrs Rose Malsale
Corporate Services Officer
Department of Customs and Inland Revenue
Port Vila

Mrs Tina Soaki-la'au
Senior Food Technologist
Ministry of Tourism, Trade, Commerce & Ni
Vanuatu Business
Port Vila

Mr Viran Tovu
Health Strategic Analyst
Prime Ministers Office
Port Vila

Mrs Emily Tumukon
Codex Liaisons Officer
Bio-Laef
Port Vila

CODEX SECRETARIAT

Dr Hilde Kruse
Senior Food Standard Officer
Joint FAO/WHO Food Standards Programme
Rome

Mr Goro Maruno
Food Standard Officer
Joint FAO/WHO Food Standards Programme
Rome

Mr Roberto Sciotti
Record & Information Management Expert &
Webmaster
Joint FAO/WHO Food Standards Programme
Rome

KEYNOTE SPEAKER

Dr Ralph Regenvanu
Minister
Ministry of Foreign Affairs, External Trade and
International Cooperation
Port Vila

APPENDIX II

PROPOSED DRAFT REGIONAL STANDARD FOR FERMENTED NONI FRUIT JUICE

(For Adoption at Step 5)

1. SCOPE

This standard applies to fermented noni fruit juice, as defined in Section 2 below, which is used as a food or food ingredient. This standard does not apply to non-fermented juice of noni fruit or other noni products from fruit, leaves, bark or flowers or noni products for medicinal purposes.

2. DESCRIPTION**2.1. Product Definition**

The fermented noni fruit juice is the juice product that is derived from the fermenting of fresh fruits of noni plants¹, *Morinda citrifolia* L. variety *citrifolia*² of the Rubiaceae family.

2.2 Noni Fruits

Fresh, firm and mature to ripe noni fruits, with greenish-yellow to white colour, are harvested, washed and left to dry. Optionally, the fruits may be crushed to a pulp (excluding seeds). Fruits that are: over-ripe, fallen fruits, green, bruised and or damaged fruit, or foreign material such as sticks, stem, leaves, bark and root material should be rejected and not used in the production of fermented noni fruit juice.

2.3 Fermentation of Noni Fruit Juice

Whole fruits or fruit pulp are fermented spontaneously or by starter culture. Juice is extracted from the fermented products. The resultant 100% fermented noni fruit juice is pasteurized or otherwise treated to eliminate pathogens of public health significance.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1 Ingredients**

The fermented noni fruit juice as defined in section 2.

3.2 Fermented noni fruit juice

- | | |
|-------------------------------|----------------------|
| a) Brix | 5.5° minimum |
| b) pH | 3.5-3.9 |
| c) Ethanol | less than 0.5% v/v |
| d) Deacetylasperulosidic acid | Present |
| e) Scopoletin | Present ³ |

3.3 Definition of defects

To the extent possible, fermented noni fruit juice shall be free from objectionable matter (e.g. noni leaves, seed fragments, fruit skin fragments, stems, insects, etc.) and according to Good Manufacturing Practice.

4. FOOD ADDITIVES

No additives are permitted in the product as defined by the scope.

5. CONTAMINANTS

The products covered by this standard shall comply with the Maximum Levels for contaminants that are specified for the product in the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1985); and the Maximum Residue Limits for pesticides established by the Codex Alimentarius Commission.

¹ Common names of noni are great morinda, beach mulberry, Indian mulberry, ach, mengkudu, nono, nonu, noni and cheese fruit.

² Two types of large fruits with oval leaves and small fruits with elongated leaves (Wagner, Herbst and Sohmer, 1990, "The Manual of the Flowering Plants of Hawaii" (Copyright 1990, Bishop Museum, Honolulu).

³ Scopoletin is present naturally in fermented noni fruit juice. Some reports have shown potential toxicity of scopoletin. Therefore, the scopoletin levels should be kept as low as technologically feasible until a safe level is established by JECFA.

6. HYGIENE

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

The product should also comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CXG 21-1997).

7. PACKAGING

The fermented noni fruit juice products must be packed in containers that safeguard its hygienic, and organoleptic quality. The materials used for packaging must be new (for the purposes of this standard, this includes recycled material of food-grade quality.) The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the fermented noni fruit juice. Packages must be free of all foreign matter and smell.

8. WEIGHTS AND MEASURES

8.1 Fill of the container

8.1.1 Minimum fill

The container should be well filled with the product and the product shall occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

9. LABELLING

The products shall be labelled in accordance with the *General Standard for the Labelling of Prepackaged Food* (CXS 1-1985).

9.1 Name of the product

The name of the food product shall be “Fermented Noni Fruit Juice”. The term “noni fruit juice” may be replaced by a term which has customarily been used to describe the product in the country in which the product is intended to be sold (e.g., “nonu juice” or “nono juice”).

10. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this standard, the methods of analysis and sampling contained in the Recommended Methods of Analysis and Sampling (CXS 234-1999) relevant to the provisions in this standard, shall be used.

10.1 Methods of Analysis

Provision	Method	Principle	Type	Notes
Brix value	AOAC 983.17	Refractometry	I	Adopted for fruit juices and nectars
pH value	NMKL 179	Potentiometry	II	Adopted for fruit juices and nectars
Ethanol	IFUMA 52	Enzymatic determination	II	Adopted for fruit juices and nectars
Identification of scopoletin	Annex A*	Thin layer chromatography	IV	
Identification of deacetylasperulosidic acid	Annex B*	Thin layer chromatography	IV	

* In compliance with the general criteria for testing laboratories laid down in ISO/IEC Guide 17025:2017

ANNEX A

IDENTIFICATION OF SCOPOLETIN

1. PREPARATION OF SAMPLES

- 1.1 Noni fruit is mashed. Two grams of mashed fruit is extracted twice with 125 milliliters methanol. The methanol extract is concentrated by evaporation of the solvent under vacuum. The extract is then re-dissolved in a small quantity of methanol, such as 10 milliliters.
- 1.2 Noni juice is filtered through a 0.45 µm membrane filter and then purified by solid-phase extraction (SPE) with Waters OASISS® extraction cartridges, or similar solid-phase extraction cartridge. [SPE cartridges is first equilibrated with water, followed by methanol. The samples are then loaded onto the cartridge and washed with 5% MeOH, followed by 100% MeOH. The MeOH eluate is retained for TLC analysis.]
- 1.3 One gram of noni fruit powder is extracted with 5 milliliters of methanol. The methanol extract is filtered and evaporated to dryness under vacuum at 50°C. The extract is dissolved into one milliliter of methanol.

2. PREPARATION OF REFERENCE STANDARD

- 2.1 A reference standard is prepared by dissolving 1 mg scopoletin in 1 milliliter of methanol.
- 2.2 Alternately, certified *Morinda citrifolia* reference plant material may be prepared in the same manner as the samples to be analyzed. The certified *Morinda citrifolia* reference material should be from the same part of the plant as the samples to be analyzed.

3. IDENTIFICATION

3.1 THIN LAYER CHROMATOGRAPHY

Spot 5 microliters of sample solutions and reference standard solution on a silica gel [60 F254] thin layer chromatography (TLC) plate, previously dried at 110 °C for 15 minutes in a drying oven. [Develop the plate with a lower solution mobile phase of dichloromethane:methanol (19:1, v/v).] View bright fluorescent blue colours on developed plate under UV lamp, 365 nm. Identify scopoletin in samples by comparing R_f values and colours to the standard.

REFERENCES

1. Deng S, West BJ, Jensen J. A Quantitative Comparison of Phytochemical Components in Global Noni Fruits and Their Commercial Products. *Food Chemistry* 2010, 122 (1): 267-270.
2. Potterat O, et al. Identification of TLC markers and quantification by HPLC-MS of various constituents in noni fruit powder and commercial noni-derived products. *Journal of Agricultural and Food Chemistry* 2007, 55(18):7489–7494.
3. Basar S, Westendorf J. Identification of (2E, 4Z, 7Z)-Decatrienoic Acid in Noni Fruit and Its Use in Quality Screening of Commercial Noni Products. *Food Analytical Methods* 2011, 4(1):57-65. DOI: 10.1007/s12161-010-9125-9.
4. Chan-Blanco Y, et al. The ripening and aging of noni fruits (*Morinda citrifolia* L.): microbiological flora and antioxidant compounds. *Journal of the Science of Food and Agriculture* 2007, 87:1710 – 1716.
5. West BJ, Deng S. Thin layer chromatography methods for rapid identity testing of *Morinda citrifolia* L. (noni) fruit and leaf. *Advance Journal of Food Science and Technology* 2010, 2(5):298-302.

ANNEX B

IDENTIFICATION OF DEACETYLASPERULOSIDIC ACID

1. PREPARATION OF SAMPLES

- 1.1 Noni fruit is mashed. Two grams of mashed fruit is extracted twice with 125 milliliters methanol. The methanol extract is concentrated by evaporation of the solvent under vacuum. The extract is then re-dissolved in a small quantity of methanol, such as 10 milliliters.
- 1.2 Noni juice is filtered through a 0.45 µm membrane filter and then purified by solid-phase extraction (SPE) with Waters OASISS® extraction cartridges, or similar solid-phase extraction cartridge. [SPE cartridges is first equilibrated with water, followed by methanol. The samples are then loaded onto the cartridge and washed with 5% MeOH, followed by 100% MeOH. The MeOH eluate is retained for TLC analysis.]
- 1.3 One gram of noni fruit powder is extracted with 5 milliliters of methanol. The methanol extract is filtered and evaporated to dryness under vacuum at 50°C. The extract is dissolved into one milliliter of methanol.

2. PREPARATION OF REFERENCE STANDARD

- 2.1 A reference standard is prepared by dissolving 1 mg deacetylasperulosidic acid in 1 milliliter of methanol.
- 2.2 Alternately, certified *Morinda citrifolia* reference plant material may be prepared in the same manner as the samples to be analyzed. The certified *Morinda citrifolia* reference material should be from the same part of the plant as the samples to be analyzed.

3. IDENTIFICATION

3.1 THIN LAYER CHROMATOGRAPHY

Spot 5 microliters of sample solutions and reference standard solution on a silica gel [60 F254] thin layer chromatography (TLC) plate, previously dried at 110 °C for 15 minutes in a drying oven. [Develop the plate with a lower solution mobile phase of dichloromethane: methanol: water (13:6:1, v/v/v).] Spray developed plate with 2% anisaldehyde / 10% sulfuric acid-EtOH solution then heat in oven at 110 °C for 1 minute to reveal blue colour. Identify deacetylasperulosidic in samples by comparing R_f values and colours to the standard.

REFERENCES

1. Potterat O, et al. Identification of TLC markers and quantification by HPLC-MS of various constituents in noni fruit powder and commercial noni-derived products. *Journal of Agricultural and Food Chemistry* 2007, 55(18):7489–7494.
2. Deng S, et al. Determination and comparative analysis of major iridoids in different parts and cultivation sources of *Morinda citrifolia*. *Phytochemical Analysis* 2011, 22(1):26-30.
3. West BJ, Deng S. Thin layer chromatography methods for rapid identity testing of *Morinda citrifolia* L. (noni) fruit and leaf. *Advance Journal of Food Science and Technology* 2010, 2(5):298-302.

APPENDIX III

**PROPOSED DRAFT REGIONAL STANDARD FOR KAVA PRODUCTS
FOR USE AS A BEVERAGE WHEN MIXED WITH WATER**

(For Adoption at Step 5)

1. SCOPE

This standard applies to fresh or dried kava products that are used to prepare a beverage when mixed with potable water, intended for human consumption, in conformity with the description in Section 2 of this standard. The standard does not apply to the final kava beverage as such, or kava products used for medicinal purposes, or as ingredients in foods (other than as provided in this Standard) or other tradable product, or for any other purposes.

2. DESCRIPTION

Kava products are derived from selected parts of the Noble cultivar of the kava plant, *Piper methysticum* G. Forst. in the Family *Piperaceae*. The parts of the kava plant used to produce kava products may include:

- a) Peeled, fresh and/or dried rhizomes, basal stems (up to the first node on each kava branch); and
- b) Fresh and/or dried roots.

Upper stems, leaves, peelings (bark), and extraction residues are excluded.

2.1 Fresh Kava Products

Fresh kava products are prepared using peeled rhizomes, peeled basal stems and/or roots.

2.2 Dried Kava Products

Dried kava products may be in the form of intact lateral roots or peeled rhizomes, or peeled chips, or in powdered form.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1 Raw materials**

Kava plants used as raw material for kava products shall be a Noble variety. The Noble variety shall be confirmed using their morphological characteristics. Kava of the wild, *Piper wichmannii* and Two-day (Tudei) varieties are excluded.

The following list is non-exhaustive and includes examples of vernacular terms used to describe some Noble varieties in the various regions:

- i. Federated States of Micronesia: *Rahmwahnger*;
- ii. Fiji: *Damu, Dokobana loa, Dokobana vula, Yonolulu, Loa kasa balavu, Loa kasa leka, Matakaro balavu, Matakaro leka, Qila balavu, Qila leka, Vula kasa balavu, Vula kasa leka, Yalu*;
- iii. Hawaii: *Hanakapi'ai, Hiwa, Honokane Iki, Kumakua, Mahakea, Mapulehu, Moi, Nene, Opihikao, Pana'ewa, Papa 'Ele'ele, Papa 'Ele'ele Pu 'upu'u, Papa kea*;
- iv. Papua New Guinea: *Kau kupwe*;
- v. Samoa: *Ava La'au, Ava Le'a, Ava Loa, Ava Talo, Ava Mumu*;
- vi. Solomon Islands: *Feo, Tahu, Temo*;
- vii. Tonga: *Kava Lekahina, Kava 'Akauhina, Kava Lekakula, Kava 'Akaukula, Kava Fulufulu, Kava Valu, Kava Kofe*;
- viii. Vanuatu: *Ahouia, Amon, Asiyai, Bir Kar, Bir Sul, Biyaj, Borogoru, Borogu, Gorgor, Ge gusug, Ge vernea, Ge wiswisket, Kelai, Leay, Melmel, Melomelo, Miela, Naga miwok, Olitao, Palarasul, Palasa, Palimet, Pia, Poivota, Pualiu, Puariki, Sese, Silese, Urukara*.

3.2 Production and post-harvest handling

Kava plants should be cultivated using Good Agricultural Practices.

The roots, and/or rhizomes are harvested and washed, and peeled when tissues have been exposed to sunlight. They may be sliced, dried or fresh. Dried kava may also be ground into powder.

3.3 Composition

Kava as defined in section 2 and 3.1.

3.4 Moisture

Dried kava products shall have a moisture content not exceeding 12%.

3.5 Quality criteria

Kava products shall be:

- of known Noble kava variety [and with a suitable kavalactones composition¹];
- have no intentional adulteration;
- free of leaves, bark, and/or stems;
- practically free from pests;
- practically free from damage caused by pests;
- free of visible mould;
- free from soil and foreign materials;
- free from foreign odour.

3.6 Packaging and storage

Kava products shall be packaged in such a manner as to safeguard the hygienic and organoleptic quality of the products.

Kava products shall be stored in such a manner as to avoid pest access or harborage, protected from contamination, and under conditions of temperature and humidity that minimize deterioration and minimize mould growth.

Fresh kava products shall be quick frozen and maintained at < -18°C.

Dried kava products shall be stored in a sealed container and the moisture content shall not exceed 12%.

3.7 Preparation of kava for use as a beverage

If prepared from dried kava, the powder is mixed with potable water and may be filtered prior to consumption.

If prepared from fresh kava, the ground or macerated kava is mixed with potable water and may be filtered prior to consumption.

4. FOOD ADDITIVES

No additives are permitted in the products covered by this standard.

5. CONTAMINANTS

The products covered by this standard shall comply with the Maximum Levels for contaminants that are specified for the product in the [General Standard for Contaminants and Toxins in Food and Feed](#) (CXS 193-1995).

The products covered by this standard shall comply with the Maximum Residue Limits for pesticides established by the Codex Alimentarius Commission.

6. HYGIENE

It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the [General Principles of Food Hygiene](#) (CAC/RCP 1-1969) and the [Code of Hygienic Practice for Low-Moisture Foods](#) (CAC/RCP 75-2015). The products should comply with any microbiological criteria established in accordance with the [Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods](#) (CAC/GL 21-1997).

¹ [Total kavalactones: Fresh kava products, In roots: 3.7 g/kg minimum; Dried kava products, In roots: 3.5g/kg minimum on a <25°C> dry weight]

7. LABELLING

7.1 The products covered by this standard shall be labelled in accordance with the [General Standard for the Labelling of Prepackaged Foods](#) (CXS 1-1985). In addition to these requirements, the following specific provisions apply:

7.2 Name of the product

The name of the food shall be “fresh kava” or “dried kava” together with the part of the kava plant from which the kava product is derived. Kava products shall have a clear marking that they are Noble kava. Optionally the name of the variety(ies) of kava plant from which the kava product is derived may be stated.

7.3 Origin of the product

Country of origin² and, optionally, island or district where grown, or national, regional or local place name. The [Principles for Traceability / Product Tracing as a Tool within a Food Inspection and Certification System](#) (CXG 60-2006) shall be adhered to when tracing a product to its origin.

7.4 Instructions for use

The label of each container of kava products shall have a clear, conspicuous and easily readable message, which includes the following points:

- a) the statement “Steps to prepare the kava beverage” or a similar statement followed by specifically numbered actions to prepare the kava beverage;
- b) the first action referred to in Section 7.4(a) should read “Use only potable water to prepare the kava beverage” or a similar statement;

7.5 Labelling of non-retail containers

Information for non-retail containers 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 producer, packer, exporter or distributor shall appear on the container. However, lot identification, and the name and address of the producer, packer, exporter or distributor may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

7.6 Optional Labelling

Kava products may have a clear marking to indicate that they are not intended for medicinal purposes.

8. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this standard, the methods of analysis and sampling contained in the [Recommended Methods of Analysis and Sampling](#) (CXS 234-1999) relevant to the provisions in this standard, shall be used.

Provision	Method	Principle	Type
Noble kava varieties	Lebot V, Legendre L (2016), Comparison of kava (<i>Piper methysticum</i> Forst.) varieties by UV absorbance of acetonic extracts and high-performance thin-layer chromatography. <i>Journal of Food Composition and Analysis</i> 48:25-33. http://dx.doi.org/10.1016/j.jfca.2016.01.009 and Lebot V, Michalet S, Legendre L. (2019). Kavalactones and flavokavins profiles contribute to quality assessment of kava (<i>Piper methysticum</i> G. Forst.), the traditional beverage of the Pacific. <i>Beverages</i> 2019, 5, 34; https://doi.org/10.3390/beverages5020034	High performance thin layer chromatography and/or UV absorbance of acetonic extracts measured at 440 nm (less or equal to 0.9)	IV
Moisture	The Fiji Kava Standard 2017 . Section 8.1	Gravimetry	I

² The full or a commonly used name should be indicated.

<p>[Flavokavins</p>	<p>Lebot V, Legendre L (2016), Comparison of kava (<i>Piper methysticum</i>Forst.) varieties by UV absorbance of acetonic extracts and high-performance thin-layer chromatography. <i>Journal of Food Composition and Analysis</i> 48:25-33. http://dx.doi.org/10.1016/j.jfca.2016.01.009 and Lebot V, Michalet S, Legendre L. (2019). Kavalactones and flavokavins profiles contribute to quality assessment of kava (<i>Piper methysticum</i>G.Forst.), the traditional beverage of the Pacific. <i>Beverages</i> 2019, 5, 34; https://doi.org/10.3390/beverages5020034</p>	<p>High performance thin layer chromatography and/or UV absorbance of acetonic extracts measured at 440 nm (less or equal to 0.9)]</p>	<p>IV</p>
---------------------	---	--	-----------