



JOINT FAO/WHO FOOD STANDARDS PROGRAMME

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DISCUSSION PAPER ON DEVELOPMENT OF A REGIONAL STANDARD FOR GALIP NUT (NORTH AMERICA AND THE SOUTH WEST PACIFIC)

(Prepared by Papua New Guinea and Solomon Islands, supported by New Zealand)

1. Background

A proposal for a new standard for galip nut was first discussed at CCNASWP12 (2012). Delegations, noting that more work might be necessary, were of the view that it was premature to propose new work on Galip nut because the document did not include a project document; some essential data and information were missing, such as trade data, food safety issues or impediment to trade had not been identified; and the discussion paper was submitted too late for members to consult with stakeholders.

CCNASWP12 agreed that Papua New Guinea (PNG), as Coordinator (at that time), would collect information from members identifying the products and the related food safety or trade issues that would be addressed by a regional standard and develop mechanism to prioritize products of potential interest for the region, for consideration at CCNASWP13.

This topic was raised again at CCNASWP16 (2023) in a discussion around possible new work proposals for the region. Vanuatu and PNG's delegations proposed a regional standard for galip nut as a potential focus for standards development in the region. PNG emphasized the need to enhance food safety, food security, nutrition, and export trade for galip nuts, tapping into the regional crop.

The second North America South West Pacific Codex Colloquium, held in Fiji in February 2024, discussed development priorities for new regional standards. This resulted in the prioritization of several proposed regional standards including a standard for galip nut. It was agreed project documents and proposed drafts would be developed through an unofficial working group. The galip nut working group would be led by PNG with participation from Fiji, Solomon Islands, Tonga, Vanuatu and Samoa.

2. Rationale for the development of a regional standard for galip nut.

Canarium indicum (galip nut) is a nut-producing tree species native to the lowlands of Papua New Guinea, the Solomon Islands, and Vanuatu and parts of Indonesia where it has been important to the diet for many thousands of years. It has also been introduced in Fiji where it is cultivated, and to a lesser extent introduced in Samoa, Tonga and also in Australia, the United States and beyond the CCNASWP region.

The nut is known for its distinctive properties, particularly its soft texture, which distinguishes it from all the major internationally traded nuts, its nutritional qualities, being high in oil, protein, vitamins and minerals it is also known for being nonperishable after basic processing.

Despite the many advantages of galip nut, the production and export of galip nut in the region is hindered by inconsistent supply, high production costs, and the lack of standards for safe processing and labelling for export markets.

Wallace *et. al*, (2012) note that the nut has not yet reached its potential as a viable nut industry in Pacific Island countries due to the need to develop appropriate processing methods to produce a high quality product.

Codex Members in the South West Pacific (SWP) subregion are therefore proposing a Codex regional standard to minimize health risks for consumers, harmonize production methods across the region, and to protect against counterfeit or substandard products. This standard would encompass requirements for hygienic practices, consistent product quality, and accurate labelling to ensure consumer protection and reduce trade barriers.

3. Recommendations

Papua New Guinea and the Solomon Islands invite CCNASWP17 to review the attached project document (Appendix I) and to consider supporting the proposal to develop a Codex regional standard for galip nut (North America and the South West Pacific).

PROJECT DOCUMENT
PROPOSAL FOR NEW WORK ON GALIP NUT

Introduction

Galip nut (*Canarium indicum*) belongs to the kingdom Plantae, phylum Magnoliophyta, class Magnoliopsida, order Sapindales, family Burseraceae, genus *Canarium*, and species *Canarium indicum*. Genus *Canarium* includes 75 species of tropical and subtropical trees.

The common name in the Pacific is canarium nut. In Papua New Guinea, it is known as galip nut and also referred to as lawele (New Britain) and biuei (New Ireland). In Solomon Islands, it is commonly known as Ngali nut (Kwara'ae language), angari (Santa Ana), ngari (Kausage/Simbo and Varisi), ngoeta (Marovo), nolepo (Garciosa Bay), nyia nyinge (Ayiwo), and other names in other parts of Solomon Islands. In Vanuatu, it is known as nangai in local Bislama. Nanae (Santo Island), nige karia (Epi Island).

1. Purpose and scope of the standard

The purpose of the proposed standard is to identify and quantify characteristics of galip nut, set out processes for handling and transporting, and labelling to protect consumer health and facilitate fair trade practices.

It has been reported that processing practices for Galip nuts may pose a hygiene risk (Evans 1996a; Nevenimo *et al.* 2007 cited in Wallace *et. al.*, 2012). Further (Özilgen and Özdemir 2001, cited in Wallace *et. al.* 2012) argue that better handling practices, proper drying and safety storage may reduce the risk of contamination of food products by toxins.

Wallace *et. al.* (2012) report that a lack of knowledge by the industry regarding post-harvest handling and process techniques may also contribute to poor kernal quality, and a high volume of otherwise marketable nuts do not make it to market due to poor handling and storage practice. Furthermore the resulting losses are a significant factor in ensuring a reliable supply that could facilitate the trade of galip nut.

A Codex regional standard is expected to assist the industry by providing a tool to guide development of its food processing systems and transportation infrastructure which will in turn help to support a consistent increase in supply, facilitating export.

It is intended that the Galip nut standard would cover roasted Galip nut (with and without the shell) if there is sufficient justification and stakeholder interest in providing for this range of products in the standard. The standard would encompass requirements for hygienic practices, consistent product quality, and accurate labelling to ensure consumer protection and reduce trade barriers.

2. Relevance and timeliness

The establishment of a Codex regional standard covering quality, hygiene and labelling would be an essential reference point to support both the growth of domestic markets in the South West Pacific and to move beyond domestic to bolstering the supply for export markets.

The export of galip nut has been a focus for the Australian Centre for International Agricultural Research (ACIAR) who have worked with Papua New Guinea on various research projects since 2012. This included an initial pilot factory testing the range of technologies for processing. Since then Professor Wallace who led that project noted that working in partnership with the government and private sector, supply had tripled and had a farm gate value of \$100,000 AUD in just three years (Hutchins, 2021).

The emerging canarium industry is at a critical phase and it is expected a Codex standard would support and build on the momentum by the current and previous research undertaken by ACIAR and the industry efforts.

3. Main aspects to be covered

The main aspects to be covered in the standard are the minimum quality required to ensure consumer health and to promote fair practices in international trade. Hence, the standard will cover:

- i. Product Definition - Defining the product as fresh or dry and including references to the genus and the species and/or varietal types if necessary.
- ii. Styles - Listing/describing the different forms of presentation.
- iii. Classes/Quality Criteria - Including provisions for moisture content, ash content, volatile oil content, extraneous matter and classification of defectives vis-à-vis lot acceptance based on the defects allowed.
- iv. Quality Tolerances - Provisions for the labelling and date marking of the product in accordance with the Codex *General Standard for the Labelling of Pre-packaged Foods*

- v. Provisions on contaminants that refer to the *Codex General Standard for Contaminants and Toxins in Food and Feed*.
- vi. Hygiene provisions that refer to the *Recommended International Code of Practice –General Principles of Food Hygiene*.
- vii. Provisions for pesticides residues, labelling and packaging with reference to pre-existing Codex documents.
- viii. References to Methods of Analysis and Sampling.
- ix. Traceability.

4. Assessment against the criteria for the Establishment of work priorities.

3.1 General criteria

Consumer protection from the point of view of health, food safety, ensuring fair practices in food trade and considering the identified needs of developing countries. The proposed new standard will meet this criterion by:

- Promotion of consumer protection and the prevention of fraudulent practices.
- Providing greater assurance of the product to meet consumer needs and the minimum requirements for food safety.
- Arriving at levels of standardization based on the properties of different countries to meet industrial and consumer needs with exactness and credibility.

Criteria applicable to commodities

(a) Volume of production and consumption in individual countries and volume and pattern of trade between countries.

The world trade data in the internationally published sources are readily accessible only for the product categories under the six-digit HS code. To date there is no code for Galip nut. Instead information about production and export has had to be obtained from each producer in each member country.

ACIAR will shortly be conducting the end of project review on Phase 2 of the project Enhancing private sector-led development of the canarium industry in PNG. ACIAR has agreed to provide us with any information they have on galip nut export trends from the South West Pacific, so it can be presented to CCNASWP17.

In the interim Table 1 provides an example of export trends for one company in the Solomon Islands.

Table 1 – Example of a company that produces and export Galip nut

Solomon Islands	Company A – fresh roast – \$30,198 (year up until beginning Oct 2024)	Company A – fresh roast – \$50,628 (2023)	Company A – fresh roast – \$48, 855 (2022)
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(b) Diversification of national legislations and apparent resultant or potential impediments to regional trade:

Food harvesting and processes practice for Galip nut are inconsistent within member countries and across the CCNASWP region which impacts on the potential to import and export of Galip nut Members of the South West Pacific consider a Codex regional standard would assist in protecting the health of consumers and facilitate regional trade by accommodating importer's requirements.

(c) Regional market potential

Wallace et. al, (2012) note that the nut has not yet reached its potential as a viable nut industry in Pacific Island countries due to the need to develop appropriate processing methods to produce a high quality product.

(d) Amenability of commodity to standardization

The standard will include the characteristics of roasted (shelled and unshelled). Galip nut, composition, quality and packaging criteria.

The characteristics of Galip nut cultivated to retail sale e.g. composition, quality characteristics, processing, packaging, etc., all lead to adequate parameters for the standardization of the product. Considering of technical information available and a certain degree of harmonization that has already been achieved at national level

and international levels on certain aspects relevant to consumer's protection and trade facilitation as mentioned, it is therefore, timely to develop an international harmonized standard for Galip nut.

(e) Coverage of the main consumer protection and trade issues by existing or proposed general standards

There is no general commodity standard covering Galip nut. The new work will enhance consumer protection and facilitate trade by establishing an internationally agreed and recognized quality standard.

(f) Number of commodities which would need separate standards including whether raw, semi processed or processed.

It is intended one standard will cover the Galip nut in its different styles roasted (shelled and unshelled).

(g) Work already undertaken by other organizations in this field

i. Australian Standard (tbc)

Document of ESA (Rev. 5 2018).

Approved by the EU; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0667>.

In 2022 EFSA assessed Galip nut and did not find any safety concerns, except on allergy, which is expected for nuts. <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/sp.efsa.2022.EN-7314>

The EU has listed specifications on contaminants and microbiological criteria.

Aflatoxins (AFT) and other contaminants, like cadmium and lead are known to be potentially present in nuts, this issue is not specific to Galip nuts. A Code of practice may be sufficient to cover.

Australia has described mitigation steps to reduce/prevent AFT contamination; page 107 <https://www.aciar.gov.au/sites/default/files/2022-07/Final-Report-for-FST-2006-048.pdf>

5. Relevance to Codex strategic objectives

The proposal is consistent with the Codex Strategic Plan 2020-2025, in particular strategic objectives 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 3.2. and aims at setting up internationally accepted minimum quality requirements of Galip nut for human consumption.

6. Information on the relation between the proposal and other existing Codex documents

This proposal is a new Codex standard and is not related to or based on any pre-existing Codex document. This standard will include references to relevant pre - existing Codex texts developed by general subject committees, as follows:

- *Principles and Guidelines for the Establishment and Application of Microbiological Criteria for Foods* (CXG 21 – 2013).
- *General Principles of Food Hygiene*. Codex Alimentarius Code of Practice, (CXC 1-1969). FAO and WHO. 2023 Codex Alimentarius Commission. Rome. Revised and renamed 2022.
- Data bases related to the maximum limits for pesticides residues issued by Codex Committee on Pesticides Residues in Food (CCPR)
- *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995)
- *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015)
- *General Standard for the Labeling of Pre-packaged Foods* (CXS 1-1985)
- *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021)
- *Recommended Methods of Analysis and Sampling* (CXS 234-1999)
- *General Standard for Food Additives* (CXS 192-1995)

7. Identification of any requirement for and availability of expert scientific advice

No need for expert scientific advice is foreseen at this stage.

8. Identification of any requirement for technical input to the standard from external bodies so that this can be planned for

Technical inputs from external bodies may be sought when developing this standard.

9. Proposed Time Schedule The following is the proposed timetable for the completion of the standard.

It is expected that the development of this standard would be conducted in three CCNASWP sessions or less, depending on the agreement reached by the Committee.

References

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