



SPS COMPLIANCE, FOOD SAFETY AND FOOD QUALITY

SPC-LRD
BIOSECURITY SPS

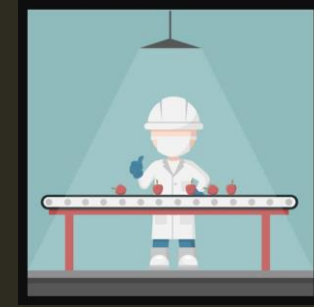
Joint IMPACT-SAFE workshop on Non-Tariff Measures (NTMs) and International Trade Promotion – Dili, Timor Leste. 22 September 2023.



SPS



Food Safety



Food Quality

REQUIREMENTS

Barriers to trade, or
Enablers of safe trade?

-International treaty of the World Trade Organization (WTO) to protect human, animal and plant health.

-SPS measures ensure that traded products do not spread pests and diseases and also that food products do not contain harmful substances or pathogens that could pose a risk to human health. **Prevention!**

-Compliance with these measures is essential to ensure products meet international (IPPC, WOH and CODEX) standards and can be traded globally.

-SPS measures applied in trade must be scientifically justified and not trade restrictive.

SANITARY AND PHYTOSANITARY (SPS) AGREEMENT

FOOD SAFETY

-Ensuring that food is **free from harmful contaminants** that could cause illness or disease (food must be **safe** for consumption by humans).

-Involves implementing good agricultural practices (**GAPs**) in the field and good manufacturing practices (**GMPs**), such as proper sanitation, hygiene, and storage methods.

-Also includes **regular testing and monitoring** to ensure food products meet the required safety standards.

-Example: **Maximum Residue Limit (MRL)** for pesticides; GAP relating to chemical sprays (strictly observing **withholding period**).


-Measure of the characteristics of food products that are **desirable or acceptable** to consumers.

-High-quality food products are those that are **free from defects, have a consistent taste and texture, and are visually appealing.**


FIJI BREADFRUIT QUALITY GUIDELINES

FOR FRESH EXPORT


VARIETIES




ROT




DEEP BRUISE



BROWN STEM




SCALE




SUNBURN




SURFACE BRUISE




MEALY BUG




STEM LENGTH




UTO DINA




BALE KANA




140 mm



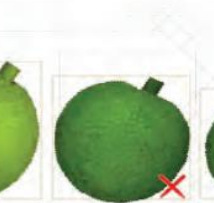
130 mm




120 mm




110 mm



100 mm





90 mm





80 mm














PACKAGING





Produced by Natures Way Cooperative (Fiji) Ltd in collaboration with the Secretariat of the Pacific Community and Fiji Ministry of Agriculture Sugar and Land Resettlement with funding assistance from New Zealand AID

DALO QUALITY

GRADING FOR QUALITY

It is important that dalo farmers clearly understand quality and size requirements for dalo that are used by buyers. Farmers should know buyer requirements before a buyer comes to collect dalo or accept delivery of a harvested crop. Buyers should be consistent in applying their quality requirements to avoid confusing farmers.

VARIETY


Buyers and exporters should specify the varieties they require. For export as fresh dalo exporters prefer dalo varieties that meet customer tastes and that have a long shelf life. Currently Tausala is the most common variety produced for export as fresh dalo.



Tausala or 'Fiti Faka' is currently the variety most commonly grown for export. Buyers and exporters should specify the varieties they require.

FREE FROM HOLES, INJURIES & ROTS

Dalo should not have any holes or fresh injuries, as these are not attractive to customers and injuries may also encourage rots to develop. Press on the site of any scars with a finger to check that it is not soft from rots.



Dalo should not have signs of damage holes, deep scars or other insect damage.




Holes and injuries may allow rots to develop.



Scars and damage from packers should be avoided.

SIZE


Corms of dalo sold for export as fresh dalo should have a round or oval shape and dalo being exported to Australia must weigh more than 300 grams when processed. Generally A-grade dalo corms would weigh between 1 and 2.5kg, although this can vary between buyers.



Dalo for the Australian export market must weigh at least 300grams and be at least 15cm long and at least 7cm in diameter at the widest point.




Dalo that has been processed for the Australian market.




Dalo that has been processed for the New Zealand market.

SHAPE


Dalo should be fully mature when harvested and the tops of the dalo corm should be coming to a taper (getting smaller) towards their top. Corms should be an even round or oval shape, without distortions and not "dumbbell" or "peanut" shaped.



Dalo should not be dumbbell shaped.




Dalo should not have double tops.



Dalo should not be peanut shaped.



Insect damage should not be harvested.




Dalo must be free of pests, other living things, and debris.




Dalo should be initially cleaned in the field before being collected.

FREE FROM SIGNS OF BRUISING & MISHANDLING

Dalo should never be thrown or dropped. Bruising and mishandling can result in rots and injuries that are not easily visible, but may lead to spoilage during transport and storage. Broken skin is one of the few visible signs of bruising.



Bruising/den may indicate bruising.



Do not throw dalo so that can cause injuries and bruising.

FREE FROM PESTS & OTHER LIVING THINGS

There should be no pests or other living things on the dalo corms. The dalo corms should also be free of weed seeds. These should all be brushed off the dalo when harvested and the dalo cleaned before it is packed for transport. This helps to avoid pests and other living things being on the dalo corms at the exporter's facility, which can cause biosecurity problems.

FOOD QUALITY

-Typically, represents the sum of all properties and attributes of a food item that are acceptable to the customer. These food quality attributes include:

- **Appearance** (including size, shape, colour, gloss and consistency); free from defects
- **Texture**
- **Flavour**
- **Nutritional content**
- **Ethical** and sustainable production

-It is not easy to define as the 'acceptability' and value of a product **can vary** from customer to customer; in different regions and cultures among other factors.

-Thus, unless it makes reference to particular criteria or standards, the general term quality can be "subjective".

-**Handling, preparing and storing** food in a way to best reduce the risk of individuals becoming sick from foodborne illnesses.

-The principles of food safety aim to prevent food from becoming contaminated and causing food poisoning. This is achieved through a variety of different avenues, some of which are:

- Properly **cleaning and sanitising** all surfaces, equipment and utensils
- Maintaining a high level of **personal hygiene**, especially hand-washing
- Storing, chilling and heating food correctly with regards to temperature, environment and equipment
- Implementing **effective pest control**
- Comprehending **food allergies, food poisoning and food intolerance**

FOOD SAFETY

May 2, 2023



Participants of the Food Safety training with facilitators from the Ministry of Health and Medical Services after their workshop last week.

Food safety Training for Food Processors and Exporters currently underway.

A training on the importance of compliance and implementation of Food Safety Plans (HACCP) concluded last week in Honiara with calls for similar trainings to enhance the knowledge and capacity of local food processors and exporters.

The two-days training was funded by PACER Plus under its National Implementation Plan for Solomon Islands and conducted by the Food Safety Unit within Environmental Health Division of the Ministry of Health and Medical Services.

| Hazard Category | Number of Notifications |
|---|-------------------------|
| Pathogenic micro-organisms | 685 |
| Mycotoxins | 551 |
| Pesticide residues | 253 |
| Heavy metals | 218 |
| Composition | 179 |
| Food additives and flavourings | 168 |
| Foreign bodies | 134 |
| Allergens | 113 |
| Adulteration / fraud | 112 |
| Poor or insufficient controls | 97 |
| GMO / novel food | 93 |
| Migration | 78 |
| Non-pathogenic micro-organisms | 62 |
| Industrial contaminants | 62 |
| Residues of veterinary medicinal products | 47 |
| Biocontaminants | 46 |
| Organoleptic aspects | 40 |
| Labelling absent/incomplete/incorrect | 28 |
| Packaging defective / incorrect | 25 |
| Parasitic infestation | 23 |
| Biotoxins (other) | 19 |
| Not determined / other | 10 |
| TSEs | 8 |
| Radiation | 5 |
| Feed additives | 3 |
| Chemical contamination (other) | 2 |

Source: European Commission (2016) Rapid Alert System for Food and Feed (RASFF) 2016 Annual Report

FOOD SAFETY

SANITARY AND PHYTOSANITARY (SPS) MEASURES

IMPORT PERMIT!

-SPS measures can be classified into the following sub-categories:

- **Prohibitions/restrictions** of imports for SPS reasons
- **Tolerance limits** for residues and restricted use of substances
- **Labelling**, marking and packaging requirements
- **Inspection and hygiene** requirements
- **Treatment** for elimination of plant and animal pests and disease-causing organisms in the final product (e.g., post-harvest treatment)
- Other requirements on production or post-production processes
- Conformity assessment related to SPS
- SPS measures not elsewhere specified

THE THREE SISTERS



World Organisation
for Animal Health
Founded as OIE

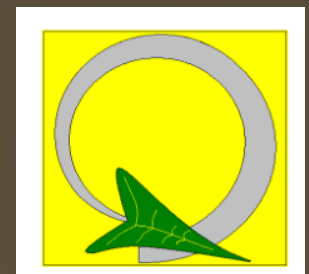


Commission on Phytosanitary Measures (CPM)

International Standards for Phytosanitary Measures (ISPMs)



Regional Measures (RSPMs)



**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**

-**Giant African Snails (GAS)**: first found in the State of Florida (USA) in 1966. It cost the **USD 1 million** and took 10 years to eradicate the snails. In 2011, GAS was found again in Miami. It took another 10 years and cost **USD 23 M** to eradicate the snails (USDA).

-Today, USDA and the State of Florida are battling the invasive snail again, this time in Pasco County, FL.



GAS is one of the most damaging snails in the world; consumes at least 500 types of plants. Can also carry a parasitic nematode that can lead to meningitis in humans.

**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**



**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**

-**Red Imported Fire Ants (RIFA)**: between 2001 – 2017, Australia spent **AUD 367 M** to eradicate the ant species. In 2017, a further cost-shared Ten-Year Plan was approved – **AUD 411.4 M** for the Queensland Government to host and deliver an expanded National Red Imported Fire Ant Eradication Program (NRIFAEP) from F/Y 2018 to 2027.

-It aims to eradicate RIFA from SEQ and Australia; and thus avert, by 2030, predicted annual impact and control costs of \$2 billion, and up to 140,000 medical consultations and 3,000 anaphylactic reactions each year due to RIFA stings (NRIFAEP Strategic Review Report, 2021).



**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**



**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**

-Oriental fruit fly (*Bactrocera dorsalis*): eradication program cost the Cook Islands NZD 246,000 in 2013 (Cook Islands Fruit Fly ERP – MOA, 2018).

-Equivalent to VT 18M (not accounting for inflation).



Fruit flies can turn entire yields of fruit and vegetables into a soft, mushy, inedible mess.



**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**



**WHEN SPS
(BIOSECURITY)
REQUIREMENTS
ARE NOT
COMPLIED WITH
= INCURSIONS!**

**(ANIMAL
DISEASES)**



CERTIFICATION - ORGANICS

-Produce can be called organic if it is **certified** to have been grown on soil that had no prohibited substances applied for three years prior to harvest. Prohibited substances include most synthetic fertilizers and pesticides (USDA).

-Certification is intended to **assure consumers** that a product marketed as organic was in fact **produced according to organic production standards**, which can vary by country or region (Luttikholt, 2007).

-More in Jim's presentation.



CERTIFICATION - HACCP

-**Hazard analysis and critical control points**, or HACCP, is a systematic preventive approach to food safety from **biological, chemical, and physical hazards** in production processes that can cause the finished product to be unsafe and includes measures to reduce these risks to a safe level (FDA).

-HACCP certification is granted by an **external third party certification** authority that has auditors with the necessary knowledge and skills to undertake an assessment of the HACCP system or HACCP plan (HACCP Australia).

-Further information at: <https://haccp.com.au/>



CERTIFICATION - FAIRTRADE

-Fairtrade certification means products were produced in accordance with Fairtrade International's rigorous **environmental, economic and social standards**. This is independently verified through regular audits by an **accredited third-party auditor** such as FLOCERT (Fairtrade America).

-Fairtrade's work is guided by a global strategy focused on ensuring that all farmers earn a living income, and agricultural workers earn a living wage. Fairtrade works with farmers and workers of **more than 300 commodities**. The main products promoted are coffee, cocoa, banana, flowers, tea and sugar (Fairtrade Int'l).

-Further information at: <https://www.fairtrade.net/>



CERTIFICATION - RAINFOREST ALLIANCE

- An international non-profit organization working at the intersection of business, agriculture, and forests to make **responsible business** the new normal.
- Certification (compliance to requirements) helps farmers produce **better crops, adapt to climate change**, increase their **productivity**, and **reduce costs** (Rainforest Alliance).
- Further information at: <https://www.rainforest-alliance.org/>



CERTIFICATION - MARINE STEWARDSHIP COUNCIL

-An international non-profit on a mission to **end overfishing and restore fish stocks** for future generations (set standards for sustainable fishing).

-Fisheries that wish to demonstrate they are well-managed and sustainable compared to the MSC's standards are assessed by a team of **Conformity Assessment Bodies** (Marine Stewardship Council).

-Further information at: <https://www.msc.org/en-au>



COMPLIANCE CHALLENGES

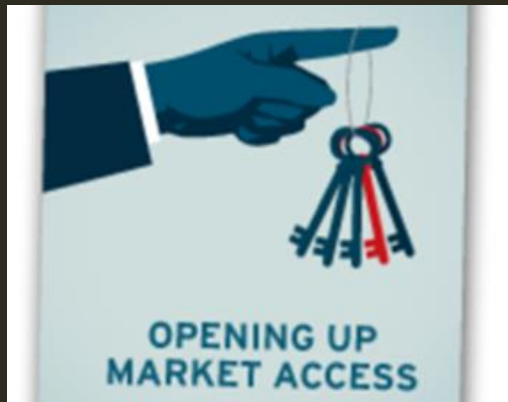
1. Pest and disease control:

Timor Leste (TML) is vulnerable to the **introduction of pests and diseases** that could impact its agricultural sector and biodiversity.

TML implements **biosecurity measures to prevent** the introduction and spread of **invasive species**, but the limited resources and infrastructure make it difficult to effectively manage these risks.



COMPLIANCE CHALLENGES



2. Limited market access:

TML's agricultural exports are primarily focused on fish products, wood, copra, coconut oil and cocoa, but the country still has limited access to international markets.

The lack of market access is due to a combination of factors, including lack of infrastructure, limited capacity for research and development (R&D), slow growth of the agricultural sector and decrease in (or small) trade volumes.

COMPLIANCE CHALLENGES

3. Adherence to international standards:

TML's ability to comply with international standards for food safety, plant health, and animal health is limited by **largely small-holder sector, resource** and **infrastructure constraints**.

Compliance is essential for the country to access international markets and increase the value of its agricultural exports.



COMPLIANCE CHALLENGES



4. Climate change:

TML is highly vulnerable to the impacts of climate change, including **increased frequency and intensity of natural disasters**, rising sea levels, and changes in weather patterns.

These impacts could have significant implications for the **country's agricultural sector**, including the **introduction of new pests and diseases**, and **changes in crop yields and production**.

COMPLIANCE CHALLENGES

5. Limited capacity:

Much like other Pacific nations, TML's capacity to manage biosecurity risks is limited – also presented with the challenge of geographical isolation.

The country has made progress in improving its biosecurity and trade-related infrastructure, but further investment is needed to address the challenges facing the sector.



COMPLIANCE CHALLENGES



Addressing these challenges will require a **coordinated effort** from government, industry/private sector and international partners to improve infrastructure, build capacity, and implement effective biosecurity measures to make SPS procedures efficient, reduce impact of TBTs, boost the country's agriculture sector and support economic development.

PIC EXAMPLES

1. Kava:

In 2001/2002, the European Union banned the import of kava from Sol and other Pacific Island countries due to concerns about its potential hepatotoxic effects.

PICs have made efforts to improve the quality of kava (quality manuals, kava standards) and comply with EU regulations. In 2010, the EU lifted the ban, but strict regulations remain in place to ensure its safety.



PIC EXAMPLES



2. Eggplants:

In 2013 and again in 2017, Fiji faced a temporary ban on its eggplant exports to New Zealand due to concerns about the presence of insects (*Atherigona* sp.).

Fijian authorities had to work with NZ auditors to ensure root causes were identified, corrected and there was compliance with IHS for eggplants. The bans were lifted after new checks and balances were in place.

PIC EXAMPLES

3. Taro:

In 2017, American Samoa banned the import of taro from Samoa due to concerns over a virus disease affecting taro plants.

The issue was resolved after negotiations between the two countries and agreement that Samoa's authorities implemented measures to prevent pests from contaminating the taro. The ban was lifted in 2018.



KEYS TO TRADE



**SAFE TRADE BETTER
THAN NO TRADE!**

CONCLUDING REMARKS

-SPS compliance, food safety and food quality are **critical concepts** in the agricultural (plants and plant products) industry.

-**SPS compliance** ensures products **meet international standards** that **prevent spread of pests and diseases**, hence allowing global trade.

-Ensuring food safety protects human health whereas high-quality products are desirable to consumers and contribute to customer satisfaction and loyalty.

-Failure to comply with requirements can result in **pest interception and/or product rejection**, which can have significant **economic consequences (\$)**.

-Assistance is available through **SAFE Pacific Project** Biosecurity SPS, Animal Health and Value Chains components for government agencies and private sector; also support for trade instruments (EU-Pacific States EPA).

THANK YOU

✉ Email:

visonit@spc.int

riteng@spc.int



Pacific
Community
Communauté
du Pacifique