POS

PACIFIC ORGANIC STANDARD

HANDBOOK

- 2024 EDITION -

Pacific Community
Communauté du Pacifique

PROTEGE
PACIFIC TERRITORIES REGIONAL PROJECT FOR SUSTAINABLE ECOSYSTEM MANAGEMENT

Funded by the European Union

POETCom
Pacific Organic & Ethical Trade Community

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- 2024 EDITION -

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THE PACIFIC ORGANIC STANDARD

2008

The Pacific Organic Standard (POS) is developed by the Pacific Community (SPC).

IFOAM

Recognised by IFOAM – Organics International.

PACIFIC DIVERSITY

Respects the specific cultures, traditions and contexts of the various peoples, ecosystems and natural resources of the Pacific.

POETCOM: PACIFIC ORGANIC & ETHICAL TRADE COMMUNITY

ESTABLISHED IN 2015,
it coordinates the Pacific Organic Standard (POS)

43 MEMBERS ORGANISATIONS
across 22 Pacific countries and territories

MISSION:
To promote organic farming and fair trade in the Pacific

HOW IT WORKS?

POETCom
Pacific Organic & Ethical Trade Community

ACCREDITS

OVERSEES

CERTIFICATION BODIES:

- Participatory Guarantee System
- Third party certifiers

The Bio Pasifika label guarantees that the product meets all the Pacific Organic Standard requirements.

This handbook is designed to help the reader understand these requirements.

AWARD THE LABEL

ORGANIC pasifika CERTIFIED

ORGANIC pasifika GUARANTEED BY LOCAL PGS

BASED ON

PROTEGE

FINANCIAL SUPPORT FROM THE EUROPEAN UNION VIA PROTEGE

This publication was produced with the financial support of the European Union (11th regional European Development Fund) via the Pacific Territories Regional Project for Sustainable Ecosystem Management (PROTEGE) implemented by the Pacific Community in New Caledonia, French Polynesia and Wallis and Futuna.

PROTEGE OBJECTIVES

PROTEGE is aimed at promoting sustainable and climate-resilient economic development in the European Pacific Overseas Countries and Territories (OCTs), by leveraging biodiversity and renewable natural resources. The goal of PROTEGE's Agriculture and Forestry theme is to boost the agriculture sector's climate-change resilience, including by leveraging biodiversity.

SUPPORT FOR THE AGROECOLOGICAL TRANSITION

This handbook is one of the steps taken to support the agroecological transition and development of organic farming, which help make farmed produce more resilient to climate and other uncertainties. The Pacific Organic Standard (POS) is a regional solution that promotes organic practices in the Pacific aligned with major agroecology principles. This handbook is for all stakeholders involved in organic farming and provides technical support for implementing POS principles in the field with due regard for the diversity of agricultural, cultural and economic realities across all Pacific Countries and Territories.

PROTEGE
PACIFIC TERRITORIES REGIONAL PROJECT FOR SUSTAINABLE ECOSYSTEM MANAGEMENT

Funded by the European Union

Regional workshop of the PROTEGE demonstration farm network of New Caledonia, French Polynesia and Wallis and Futuna.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION: WHAT YOU NEED TO KNOW BEFORE USING THIS GUIDE

1.1 WHAT IS THE PURPOSE OF THIS GUIDE?

The purpose of this guide is to clarify Pacific Organic Standard criteria that were identified as unclear or controversial by its users. This guide therefore proposes:

- ➜ Clarifications, contextualisation and explanations, to enable each user to understand what a criterion is about, the concepts and topics it covers
- ➜ Interpretation proposals, when criteria seem to leave too much room for interpretation. In these cases, the responsibility has been clearly given by POETcom to each group to decide on the guidelines that are included in this guide.

This guide does not replace the POS official standard but must be seen as a support document, nor does it intend to be a technical guide or template to follow.

1.2 WHO IS THIS GUIDE DESIGNED FOR?

This guide is aimed at 3 kinds of users:

Farmers or companies who want to understand and be inspired by POS standard.

Farmers or companies wishing to obtain or renew their certification and to improve their compliance with the standard.

Persons responsible for assessing compliance with the standard, who want to make sure they understand the meaning of POS criteria and have guidance on how to assess the standard.

1.3 HOW TO USE THIS GUIDE?

In order to facilitate reading, this guide follows the structure and colour codes of the POS.

We also chose to identify the different types of information by using symbols to facilitate the search, as shown below.

CONFORMITY ASSESMENT

BEST PRACTICE

FUTURE POS AMENDMENT NOTE

The paragraphs framed in dotted lines with this symbol refer to the proposed changes to the POS that were developed during the drafting of this guide.

INTERPRETATION OF THE POS

EXTRACT OF THE POS

REFERENCE TO A GUIDELINE
issued by POETCom

1.4 HOW WAS THIS GUIDE DESIGNED?

The content of this handbook was developed in 2021, over the course of 13 regional workshops involving various stakeholder across the Pacific region. The workshops followed a consultation to identify which chapters and which standards required clarification. As a consequence, some standards and some chapters are not developed in this document, as they attracted much less or no questions. This could either mean that the standard itself is very clear, or that the standard/chapter has been put in use by fewer actors or to a lesser degree. It does not mean that it won't need any clarification in the future, as this guide will evolve as it gets used more.

1.5

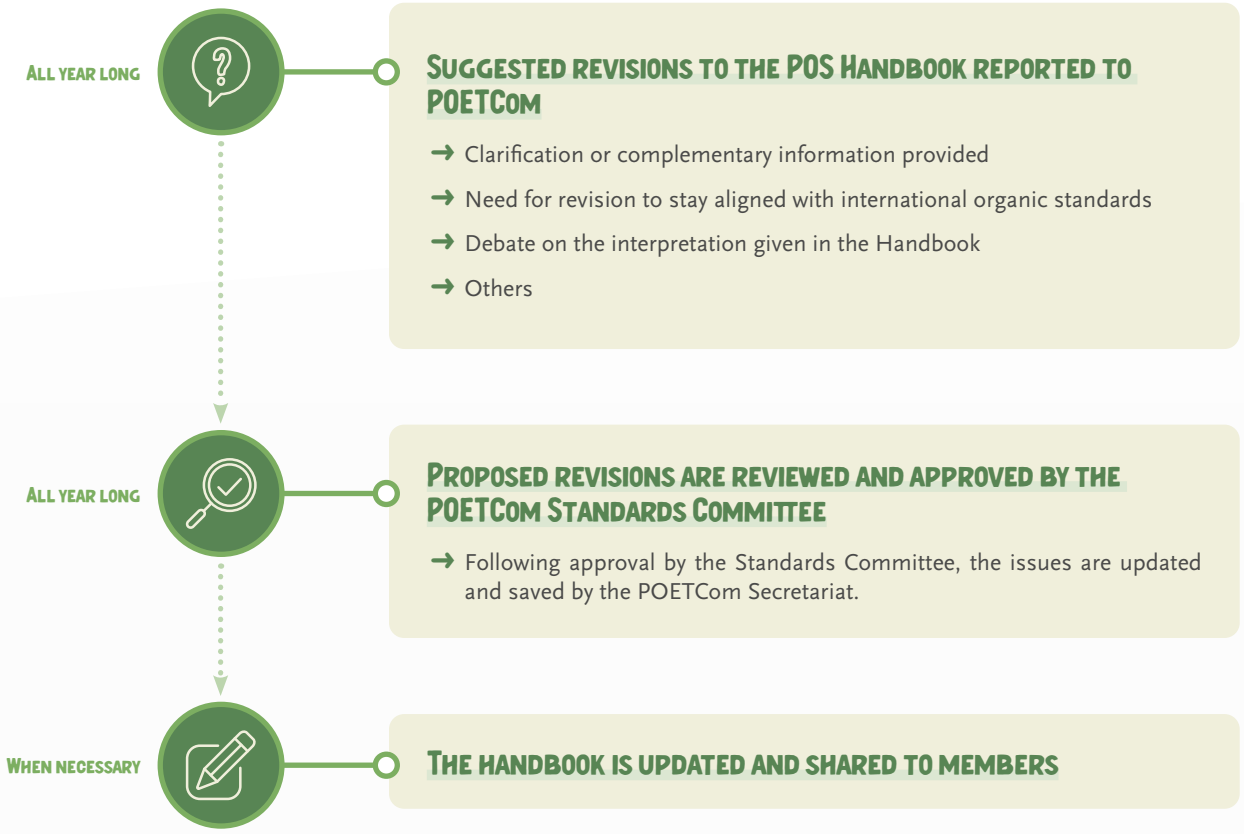
WHICH CHAPTERS ARE RELEVANT TO EACH PARTICULAR SITUATION?

The table below is to help you navigate through the guide, indicating which chapters are most relevant to your specific situation. Chapter numbers are those of the POS, chapter 2 to 9 are mirrored in this handbook.

WHAT IS MY SITUATION?	Introduction and scope CHAP 1	General requirements CHAP 2	General requirements crops and husbandry CHAP 3	Crop production CHAP 4	Animal husbandry CHAP 5	Aquaculture production standards CHAP 6	Processing and handling CHAP 7	Labelling CHAP 8	Social justice CHAP 9	Substances allowed APPENDIX 1
1) I AM NOT CERTIFIED YET, OR CERTIFIED LESS THAN 3 YEARS										
I am new to this system	X									
I want to certify only part of my farm			X							
I am a cattle farmer		X	X		X		X	X	X	X
I am a crop farmer		X	X	X			X	X	X	X
I am a beekeeper		X	X		X		X	X	X	X
I am a fish / shellfish farmer		X				X	X	X	X	X
2) I AM ALEADY CERTITIFED										
I am a cattle farmer		X	X		X		X	X	X	X
I am a crop farmer		X	X	X			X	X	X	X
I am a beekeeper		X	X		X		X	X	X	X
Iam a fish / shellfish farmer		X				X	X	X	X	X
3) PEOPLE OTHER THAN ME WORK ON MY FARM									X	

This handbook is a living document, it will be revised on a regular basis according to the feedback POETCom will receive from its users. If you don't understand or question the clarifications given in this handbook, or if you think complementary information is needed or new information has become available, please contact POETCom (https://www.organicpasifika.net/poetcom/ask-us/) secretariat to report the issue.

This flowchart aims at explaining the handbook revision process.



1.6 FOCUS: HOW TO IDENTIFY, ASSESS AND MANAGE RISKS?

Assessing risk levels is an important activity when undertaking organic agriculture audits, because it is important to focus on which actual risks in the case are being assessed, not on theoretical risks, which may be numerous. In order to ensure that the assessment of each risk does not depend on who undertakes the assessment, it is important to follow a common method.

A risk is assessed by balancing the likelihood of it occurring against the severity of the consequences if it does occur (for the farmers, for the consumers, for the environment).

The table below illustrates this logic and can be used as a tool to assess whether a risk should be considered low (green), minor (yellow), major (orange) or strong (red).

Table 1:
Risk Assessment Matrix

		Severity			
		Insignificant	Low	Medium	High
Likelihood	Very likely	●●●●	●●●●	●●●●	●●●●
	Possible	●●●●	●●●●	●●●●	●●●●
	Unlikely	●●●●	●●●●	●●●●	●●●●
	Rare	●●●●	●●●●	●●●●	●●●●
Risk:		Low ●●●●	Minor ●●●●	Major ●●●●	Strong ●●●●

How to read this table?

1. An unlikely event can represent different levels of risk depending on the severity of its consequences:

- LOW, if consequences are insignificant.
- MINOR or MAJOR depending on whether the consequences are considered low or medium.
- STRONG in case of strong consequences.

2. An event whose consequences are deemed to be of medium importance may represent different levels of risk depending on its likelihood:

- MINOR if very unlikely (rare).
- MAJOR, if unlikely or possible.
- STRONG if it is very likely.

The idea is obviously not to disregard the lowest risks, but rather to identify which risks need to be addressed as a priority: strong, then major, then minor, then low.

How to set up a risk management approach? [1]

[1] *Source: ISO 31000 guidance*

Step 1 **Identify and list hazards. In order not to forget any, hazards can be looked for by category:**

- Natural (including climate),
- Farm risks linked to transport or processing,
- Hazards from nearby farms and neighbours,
- Hazards from nearby businesses and industries

Step 2 **Assess risks and prioritize hazards:**

- Use the risk assessment matrix for each hazard,
- Rank hazards from highest to lowest risk.

Step 3 **Design a risk prevention and minimalization plan: based on the previous ranking, take measures to:**

- Prevent the risks, i.e., reduce the chances of them materialising,
- Minimize them, i.e., ensure that if they do occur, their impact is as limited as possible.

I.7
DEFINITIONS

Term	Definition in this guide
Agroecological infrastructure	A type of landscape that includes semi-natural habitats (including annuals and perennials), which are not treated with pesticide nor fertilizers, and managed extensively. Infrastructures provide numerous ecosystem services, for example in terms of providing refuge for beneficial insects, protecting soil and water.
Agroecology	Agroecology is an approach of agriculture, based on the study of ecological processes and its application, with the aim of more autonomous, sustainable and productive agricultural production systems.
Animal welfare	An animal's welfare is considered good if the following criteria are met: healthy, well nourished, safe, enough comfort, good nutritional state. Animals should not be suffering from unpleasant states such as pain, fear and distress, and animals must be able to express behaviours that are important for its physical and mental state.
Annuals	Annual plants complete their entire life cycle in a single growing season. For example, taro, watermelon, cabbage, tomatoes, corn.
Biodiversity	Biodiversity is the natural diversity and variability of life on Earth, as expressed at 3 levels: genetic diversity, species diversity of plants and animals, and diversity of ecosystems.
Buffer zone	A buffer zone protects an organic farm from pollution of any kind. Buffer zones can be of various types: permanent grassland, fallow land, grassed waterways, grassed strips, hedges, woodland, etc.
By-products	A substance or object resulting from a production process that is not the final product that the process is intended to produce, but whose subsequent and direct use is certain. The recovery is partial, specific or local. When it exists, the economic recovery remains of low added value, subject to economic hazards, and often only allows the intervention of a single intermediate operator.
By-products of primary processing	By-products of primary processing are generated directly during the processing of an agricultural raw material in an agro-industrial chain
By-products of secondary processing	The by-products of secondary processing come from the secondary processing industry, which may itself use by-products from primary processing.
Chemicals	Includes all products, natural or manufactured, which are used because of their chemical action. They can be additives in the production process, products used in cleaning premises or equipment, etc.
Common harvest area	A common harvest area refers to any non-wild harvest area that is harvested by a collective of people. For example, an established coconut grove or cocoa plantation that is harvested by a community.

Term	Definition in this guide
Composting	The process of transforming organic waste by micro-organisms in the presence of water and oxygen. It can be done in piles or in a composter. The resulting product (compost) is a very useful soil improver.
Contract	Usually a document in writing (but can also be an oral agreement, as long as both parties are very clear on what they agree on) which sets out obligations between two parties.
Contractor	A person or a company who is paid or compensated for a specific task, who is independent from the farm/company for which the task is undertaken. Independent means that the companies are not connected, and the contractor has other clients.
Conversion to organic agriculture	Transition period during which the farmer applies the rules of organic farming in order to obtain Organic Pasifika label.
Crop auxiliaries	Crop auxiliaries are living organisms that can take various forms, such as insects, bacteria and fungi, which are introduced into crops contaminated or potentially contaminated by other organisms for which they are natural predators.
Documented policy	Written document which sets out how the operator will maintain compliance with the criteria listed in the Social Justice section of the POS. It can be an Human Resources manual or an HR policy, and will describe processes around the working environment, HR documentation, hiring processes, health and safety, etc.
Ecological cycles (biogeochemical cycles)	These are the natural pathways by which essential elements of living matter are circulated. Those elements are for instance: water, oxygen, carbon, nitrogen and phosphorus. This is a simplified expression for biogeochemical systems. The term biogeochemical is a contraction that refers to biological, geological, and chemical aspects of each cycle.
Employee	A person performing work on the farm or the company, and getting paid for this work.
Ethology / Ethological	Ethology is the study of animal behaviour, in their natural environment or in an experimental environment, using scientific methods of observation and quantification of animal behaviour. By understanding the behaviour of animals in their natural environment, we can adapt the breeding conditions to come closer to these conditions.
Fallow period	A period of time where land is not cultivated to allow it to restore its fertility.
Forced or involuntary labour	Work that is performed involuntarily and under the menace of any penalty. It refers to situations in which persons are coerced to work through the use of violence or intimidation, or by more subtle means such as manipulated debt, retention of identity papers or threats of denunciation to immigration authorities (ILO definition)
Freedom to associate and right to organise	Ability of employees and contractors to talk to each other and decide on collective action to defend their rights, as set in national legislation.

Term	Definition in this guide
Freshwater lens	It is a layer of fresh groundwater that floats above the denser saltwater, usually found on small coral or limestone islands and atolls. This aquifer of fresh water is recharged through precipitation that infiltrates the top layer of soil and percolates downwards until it reaches the saturated zone.
Full-time work	Ongoing work as an employee, for a number of weekly hours as defined in national law, in any case under 48 hours per week.
Functional biodiversity	Functional biodiversity in agriculture refers to the set of species that contribute to ecosystem services that support an agricultural ecosystem. For example, living soil organisms like earthworms, bacteria, and fungi, mammals and insects such as pollinators, birds, grazing animals, as well as plants, trees and many more.
Genetic engineering	Genetic engineering, in the POS, refers to a set of techniques used in molecular biology by which the genetic material of plants, animals, micro-organisms, cells and other biological units is modified in a way or with results that could not be obtained by natural mating and reproduction methods or by natural recombination.
Genetically Modified Organism (GMO)	A Genetically Modified Organism, or GMO, is any organism, plant, animal or bacteria, whose genetic material has been altered using genetic engineering techniques.
Green House Gas (GHG) Emissions	The production and release (due to human activity) of specific gases into the Earth's atmosphere, particularly carbon dioxide and methane from the burning of fossil fuels such as coal, petrol, natural gas and other sources. Greenhouse gases harm the environment because they limit the ability of sunlight to escape the Earth's atmosphere. This sunlight then turns into heat, inducing climate change and global warming.
Habitats	An area with a set of living beings and non-living resources, with its specific parameters (such as temperature, humidity...), that allow the survival and reproduction of a particular species.
Hydrophobicity	Hydrophobicity is the property of a molecule or a body (soil for example) to be pushed away by water.
Hybrid (crops / seeds)	Hybrid plants are created when two similar plants are combined to create a new genetic variety. Hybrids can be created by traditional means, such as physical crossing or grafting. Hybrid seeds are not GMOs.
Indigenous knowledge	Traditional knowledge (TK), indigenous knowledge (IK) and local knowledge refer to knowledge systems embedded in the cultural traditions of regional, indigenous, or local communities.
Indigenous people	Descendants of those who inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived. The new arrivals later became dominant through conquest, occupation, settlement or other means. (UN permanent forum on indigenous issues definition)

Term	Definition in this guide
Landscape	A landscape is the visible features of an area of land, its landforms, and how they integrate with natural or artificial features. A Landscape Approach is known for its holistic way of looking at landscapes. It builds on the notion that people depend on their landscapes for their food, livelihood, income, culture and identity, and that these need to be handled with care.
Landscape and Biodiversity Values	Different types of values attached to landscape and/or biodiversity. The values of landscape and biodiversity are multiple (environmental, social or economic values, ecosystem services, ethical and moral value, aesthetic value...).
Operator	Any economic actor (farmer, processor) who takes ownership of the organic product, and will likely be the employer of employees.
Organic Pasifika	Organic Pasifika is the label guaranteeing compliance with POS rules.
Organic Pasifika in Conversion	Organic Pasifika in Conversion is the label guaranteeing compliance with POS rules during the conversion period to organic farming.
Parallel production	Any production system in which the same unit is growing, breeding, handling or processing the same products using both organic and non-organic methods. A system that includes organic and in-conversion production of the same product is also termed parallel production.
Perennials	Perennial plants are plants that live longer than a single growing season, like coconut trees.
Primary ecosystem	A primary ecosystem refers to habitats that have not had any past human-induced disturbance, such as logging or burning. Examples of primary ecosystems include virgin rainforests and natural mangrove areas.
Remiges	Remiges (sing. Remex) or flight feathers are the long, stiff, asymmetrically shaped, but symmetrically paired pennaceous feathers on the wings or tail of a bird Video
Right to bargain collectively	Ability of employees and contractors to form a collective to negotiate as a group (usually a trade union) with the employer, with regards to health and safety, wages, etc.
Riparian (adj.)	Refers to an area, a species or another feature located alongside riverbanks or wetlands.
Split production	Relates to a property that has more than one organic certification status for different crops, or mixed production with animal husbandry. For properties that produce the same crops under different organic certification statuses please see 'Parallel production' above.
Traditional Ecological Knowledge (TEK)	Traditional ecological knowledge (TEK) describes indigenous and other traditional knowledge of local resources. TEK refers to "a cumulative body of knowledge, belief, and practice, evolving by accumulation of TEK and handed down through generations through traditional songs, stories and beliefs. It is concerned with the relationship of living beings (including human) with their traditional groups and with their environment." (Robin Wall Kimmerer).

Term	Definition in this guide
Wild Harvest Area	A wild harvest area refers to an area with resources that are naturally present within a non farmed ecosystem. For example, traditional harvesting of Tahitian chestnut (ivi,mape), or land crabs.
Wings clipping	Wing clipping is the amputation of a part of the bird's wing in order to make it permanently impossible for the bird to fly.
Worker	Any person regularly performing work on a farm who is not the farm owner and has no control over the resources generated by their work (can be a family member or a WOOFer – excludes contractors). This group includes formal employees.

[2] *A WOOFer is an international volunteer, wishing to Work On an Organic Farm in order to learn about about organic farming and local culture. The work is usually part time, and undertaken in exchange for accommodation and food.*

1.8 ACRONYMS AND ABBREVIATIONS

CB: Certification Body

DDR: Rural Development Department of the Southern Province of New Caledonia

GMO: Genetically modified organism

HR: Human Resources

IFOAM Organics International: International Federation of Organic Agriculture Movements

IK: Indigenousl Knowledge

ILO: International Labour Organisation

MRL: Maximum residue limit

OIE: World Organisation for Animal Health

PGS: Participatory Guarantee System

POETCom: Pacific Organic and Ethical Trade Community

POS: Pacific Organic Standard

TK: Traditional knowledge

TEK: Traditional Ecological Knowledge

WHO: World Health Organisation

CHAPTER 2

GENERAL REQUIREMENTS FOR ORGANIC PRODUCTION

2.1
ECOSYSTEM MANAGEMENT

EXTRACT OF THE POS

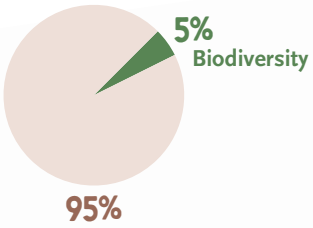
2.1.1

Operators shall take measures to identify, maintain, protect, and enhance biodiversity, which includes maintaining a significant portion of their farms to protect landscape and biodiversity values.

INTERPRETATION OF THE POS

All farmers should be able to clearly demonstrate that they are maintaining, protecting, and enhancing landscape functions and biodiversity on their farm and surrounding lands where applicable.

In general, farms should have a **minimum of 5% of land reserved to protect landscape functions and biodiversity**. In all cases, farms should be able to demonstrate they are taking actions to support landscape functions and biodiversity within the area they are operating.



BEST PRACTICE

EXAMPLES OF GOOD PRACTICE
FOR IDENTIFYING, MAINTAINING, PROTECTING, AND ENHANCING LANDSCAPES AND BIODIVERSITY

Land history and farm planning activities

- Farmers and farm operators should learn about the native landscape and land history of the farm and take this into consideration during farm planning activities.
- Leave a natural area uncultivated with endemic plants on one or more areas of the farm.
- Create flower strips and plant trees for pollinators.

Protection of rare, threatened, or endangered plant and animal species

- Rare, threatened, or endangered plant and animal species should be identified, recorded and protected. For example, by listing their names, taking photos, recording GPS coordinates of their locations, or recording and monitoring species counts.
- Important wildlife areas, such as nesting sites or breeding grounds should be identified and protected. For example by: scheduling farm activities away from these areas during important time periods, such as feeding times or breeding seasons.
- Proactive pest and weed management activities should be undertaken to protect native ecosystems from invasive species. Other activities could include: inspecting imported inputs (seeds, planting stock, compost, mulch...) for invasive animals and plants.

Crop management practices

- Grow a variety of crop and plant species, including local varieties that are well suited to the area's conditions.
- Learn how to grow new varieties from seeds of relevant local food crops such as sweet potato, taro, tomatoes, green beans, and other species.
- Rotational farming should be practiced to allow for fallow periods for soils to regenerate.
- The soil living organisms (insects, earthworms, fungi, bacteria, etc...) should be protected and enhanced. For example, by using traditional cover crops or mulching with plants, or by incorporating composted organic matter into the soil.

Arachis pintoï

Animal husbandry practices

- Rotational grazing should be practiced to allow for fallow periods for soils to regenerate.
- A variety of pasture plant species should be grown to provide food for livestock and native wildlife. For example, bermuda grass, clover, or legumes.
- Animal access to sensitive habitats for wildlife should be forbidden during important periods such as breeding seasons.

Beekeeping

- Maintain or establish areas of bee friendly plants around the apiaries.

Indigenous knowledge and practices

- Establish polyculture systems with local varieties of plants traditionally planted together (companion crops) for food, medicine, or other uses such as handicrafts or building.
- Combine crops: yams and coleus, tomatoes and basil, passion fruit and chayotes, banana trees and climbing beans, blackwood as a stake for passion fruit, pigeon peas around crops to enrich the soil and attract pollinators.
- Learn about traditional planting practices that consider natural cycles. For example, planting in relation to the moon, or animal/fish seasons, thus increasing local knowledge of beneficial plants, trees, and medicinal plants.

EXTRACT OF THE POS

2.1.2

Primary ecosystems shall not be cleared or altered. If this has occurred recently (i.e. since the establishment of this standard) then this shall restrict access to certification. An exemption to this requirement may be considered where development is associated with agroforestry enhancement, e.g. supplementary planting of trees in a primary ecosystem.

INTERPRETATION OF THE POS

The purpose of this criterion is to preserve primary ecosystems. The issue is to ensure that the clearing or modification of these ecosystems is avoided as much as possible and that any clearing and modifications are carried out in a reasoned manner to limit their impact.

Burning is a restricted activity and may result in the loss of organic certification.

Please refer to Section 2.2.2 for information on when burning is permitted.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE TO REGENERATE CLEARED OR ALTERED PRIMARY ECOSYSTEMS

If a primary ecosystem has been cleared or altered by accident, for example wildfire, farmers must take actions to support the restoration of the ecosystem back or as close as possible to its previous state. Please refer to the following recommended activities:

Regenerating primary ecosystems after clearing or altering:

- Develop knowledge and understanding of the primary ecosystem that was cleared or altered. For example, what native plants and animals existed on the land, how were they interconnected, are there any permanent or seasonal water sources or water flows, were there any rare threatened, or endangered plants and animals, or sites where wildlife animal species raise their young?
- Restore degraded lands to their original state using species adapted to and historically present in the area. For example, the native plant communities specific to the site, such as forests, wetlands, and grasslands.
- Allow degraded riparian areas, grasslands, and wetlands to be recolonized through natural processes.

Regenerating soil resources after burning

Please refer to Section 2.2.2.

CONFORMITY ASSESSMENT FOR SECTION 2.1.2

Check, by asking the farmer and also by observing their land, whether any clearing or modification of primary ecosystems has recently taken place or is being considered. In both cases, question the approach taken by the farmer:

- Before the clearing or modification
- And afterwards, to encourage the regeneration of the ecosystem

EXTRACT OF THE POS

2.1.3

The operator shall take measures to limit the incursion of preventable pests, diseases and weeds on to the property.

INTERPRETATION OF THE POS

Farmers should prioritise nature-based management strategies that repel, rather than destroy species of pests, diseases, and weeds (whether intended or unintended).

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE
FOR NATURE-BASED MANAGEMENT OF PESTS, DISEASES, AND WEEDS

Prevention of pests, diseases, and weeds

- Develop knowledge and understanding of invasive plants, pests, diseases and weeds common on your farm and in your area. For example, by talking with an agricultural officer, neighbouring farmers, elders, or researching online.
- Monitor for new invasions of pests, weeds, and diseases, through species counts and noting the conditions in which they arise. Take immediate measures to control them.
- Inspect all imported farm inputs (eg. seedlings, mulch)
- Develop a habitat for natural regulators. For example, Frog ponds, Bat houses, Bird houses, Trap crops
- Use physical barriers to prevent invasion. For example, netting.

Using physical barriers (netting) to prevent stinging butterfly damage on citrus

Flowered hedge

Organic mulching of taros

Crops

- Crop rotation
- Diversify plantings and plant arrangements. For example, plant and intercrop with proven traditional and non-traditional bio-pesticidal or deterrent plants within or around the crop plots (coleus tightly packed around banana trees to repel pukeko; dogwood cannabis to repel wild pigs; marigold to repel nematodes; etc.),
- Establish agro-ecological infrastructure,
- Selection of species suitable to the site,
- Selection of resistant non-GMO varieties,
- Establishment of habitat for pest predators,
- Plant spacing and planting timing,
- Compare crop yields.

Removal of pests, diseases, and weeds

The following practices are authorized:

- Sanitation measures to remove disease vectors, weed seeds, and pest habitats,
- Contained burning of invasive weeds after removal,
- Hand weeding, mowing,
- Shearing
- Livestock grazing,
- Solarisation,
- Compost/tea use,
- Field preparation,
- Delayed seeding,
- Monitoring soil temperature,
- Soil sterilization,
- Use of fast emerging varieties,
- Mechanical cultivation,
- Flame weeding, steam weeding, electrical weeding,
- Black fallow,
- Non-synthetic and synthetic mulch,
- Insect trap,
- Auxiliary release.

Pineapple on geotextile

Animal husbandry

- Prioritise non-lethal predator control over lethal methods. For example: use of guard animals, housing vulnerable animals overnight.
- Set up a rotational grazing system to manage pest pressure.
- Document circumstances of livestock death.

Beekeeping

- Use adapted and robust species.
- Maintain strict hygiene standards. For example, disinfection of tools between each apiary (with flame or bleach), cut the grass under the hives, protect the hives from wind and humidity.
- Regularly monitoring the hives and handling conditions.
- Renew several body frames per season.

Case study

A farmer in New Caledonia suffered a terrible mite attack on their passion fruit fields when they started organic farming. They could have treated with a product authorised for organic farming but they knew that this would not be a sustainable solution and that it would create a dependency on this input. So they took two steps:

- They introduced lines of chayotes between the passion fruit lines. The chayotes attract predators of the mites and provide other marketable products.
- Instead of clearing the rows all at once, they started mowing every other row to make sure that when one is mowed, the other has reached the flowering stage. This is because the mite predators also feed on pollen so they can live happily and control the mite populations.

Conformity assessment for section 2.1.3

- Ask the farmer what the main diseases and pests are threatening their activity, and then for each of them ask the farmer what they are doing to prevent and treat them. In each case, try to understand whether the best is done to limit the impact on the ecosystem, while ensuring a suitable level of effectiveness.
- During the visit to the farm, take the opportunity to observe the treatments or their traces and make sure that this is in line with the practices described.
- Finally, ask if the farmer has any photos, or if a treatment and farm work logbook is available and, if so, make sure these are consistent with the explanations.

2.2
SOIL AND WATER CONSERVATION

EXTRACT OF THE POS

2.2.1

The protection and enhancement of soil resources is an integral part of organic farming. Operators shall minimise loss of topsoil and prevent erosion by taking measures that are appropriate to local climatic conditions and soil, slope, and land use.

INTERPRETATION OF THE POS

Farmers should consider all risks to their soil resources and take actions to protect them accordingly.

BEST PRACTICE

The table below can be used to assess each of the risks, in order to be able to prioritise the preventive actions to be implemented (next table).

Table 2:
Overview of common risks and their potential impacts to soil resources in the Pacific. Please refer to notes below the table for additional guidance.

Risk	Potential impacts on soil if risk occurs	Probability of Risk *(see note 1 below)*
Burning or wildfires	Loss of soil organisms and biomass (above ground plants), destabilisation of soil (see deforestation impacts below), and hydrophobicity – a condition where soil repels water (read more on this in the notes below this table). These impacts contribute to deterioration of the soil structure and its functions, for example, nutrient cycling, water absorption and storage. It also increases the risk of water logging and soil erosion from rain and wind, and compaction.	High | Medium | Low
Deforestation, or excessive land clearing	Destabilises soil, reduces soil nutrient cycling and water storage capacity. Increases the risk of soil erosion from rain and wind, particularly on sloping land.	High | Medium | Low
Over fertilising	Salinisation of soils, nutrient leaching (run-off). This can lower the soil's water storage capacity, reduce crop yields, and damage waterways and surrounding ecosystems.	High | Medium | Low
Over grazing	Loss of soil organisms and biomass (above ground plants), erosion, compaction, salinisation, decrease of water retention, and nutrient leaching (run-off).	High | Medium | Low
Storm surge (ocean)	Salinisation of soils. This brings high risks of lessening the ability of plants to take up water and result in reduced crop yields.	High | Medium | Low
Tropical cyclone	High levels of soil erosion, for example from rain causing landslides.	High | Medium | Low
Specific local risk(s)	List local risks to be noted here: → ..... → ..... →	High | Medium | Low

Notes:

1. Likelihood of risks should be assessed on a case-by-case basis based on the individual circumstances of each farm.
2. This list mentions common risks only. Farmers should add additional risks if they exist in their areas.
3. Recommended actions for proactive management of soil resources for these risks are detailed in the next section.
4. Hydrophobicity results from a gas that is released into the soil from plants and vegetative material as they burn. This gas forms soot (a waxy coating) that repels water once the soil has cooled. Hydrophobic soils are more likely to occur in severe slow-moving fires, on coarse textured soils like sand, or when a thick layer of biomass is above the soil before the fire.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE FOR PROACTIVELY MANAGING AND PROTECTING SOIL RESOURCES FROM COMMON RISKS IN THE PACIFIC

General good management practices to protect soil resources

Enhance and support soil organisms (life in the soil). Recommended activities include:

- → Adding organic matter to soil,
- → Conservation tillage (minimal tillage) or no tillage,
- → Avoiding tillage in wet conditions,
- → Increasing biomass availability on the farm,
- → Maintaining wildlife habitats.

Cover soil. Recommended activities include:

- → Mulching (eg. Leave crop residues on the field),
- → Under sowing/inter-planting,
- → Setting up green manures / cover-crops.

Mulching on market gardening mounds

Vetiver grass planted on a riverbank to prevent erosion

Soil erosion management activities

- → Plant trees / tree lines,
- → Terracing,
- → Contour farming,
- → Planting vetiver grass,
- → Strip cropping,
- → Setting up windbreaks,
- → Setting up grassed waterways,
- → Setting up vegetative cover crops (see above),
- → Minimising tillage,
- → Rotational cropping.

Burning

Burning is a restricted activity and may result in the loss of organic certification. Please refer to Section 2.2.2 for information on when burning is permitted, and how it should be carried out.

Examples of activities that can protect soil resources from unintended burning, such as wildfires, are provided below.

- Establish fire breaks. For example, by leaving a space of low vegetation (not trees) between an adjacent forest and your farm. The placement of a fire break should consider the dominant wind direction during dry season and land terrain. For instance, if the dominant wind is Easterly, position the fire break on the Eastern side of the farm. If the farm is on a sloping terrain, consider positioning a firebreak at the bottom of the slope.
- Establish and protect permanent waterways, such as creeks, springs, retention ponds, and riparian (river-bank) areas.

Crops

- Reduce tillage (ploughing), especially for new planting or for replanting new pastures or no-tillage farming.
- Cautious use of soil ripper tines, to aerate compacted or trampled soil of a paddock.
- Schedule fallow periods with cover crops to allow time for soil resources to regenerate.

Minimizing tillage by aerating soil with a broadfork

Animal husbandry

- Monitor and prevent over-grazing. For example, by observing grass height and identifying sparsity of growth that shows patches of bare ground, and by ensuring crop rotations.
- Reseed trampled or eroded areas. For example, regularly schedule reseeding of pastures, after taking into consideration grazing status, optimum age of pasture productivity, and type of pasture composite species in paddocks rotational cycles.
- Restrict animal access to vulnerable areas during certain times. For example, restricting movement of animals during rainy weather to minimise soil compaction and erosion.
- Schedule fallow periods with cover crops to allow time for soil resources to regenerate.

Conformity assessment for section 2.2.1

- Ask the farmer if they have assessed the different risks to their soil resources and what actions are taken to protect their soil resources.
- If the risk assessment has not been clearly done, it may be useful to present the first table quickly in order to make an initial rapid assessment of the levels of risk, so that the discussion on the main ones can follow.

EXTRACT OF THE POS

2.2.2

Land preparation by burning shall be restricted and only permitted where it is part of an unbroken traditional farming system, e.g. for the control of invasive species, and then only under strict controls so as to protect soil (topsoil and humus) and biodiversity. This does not restrict the use of cooking fires or controlled fires for pest control.

INTERPRETATION OF THE POS

Burning is a restricted activity because if not done properly it can have disastrous impacts on soil life and structure. When used inappropriately, this practice may result in the loss of organic certification.

BEST PRACTICE

The table below provides guidance on tolerated and forbidden burning activities.

Table 3:
Summary of tolerated and forbidden burning activities.

Tolerated	Forbidden
→ Land preparation by burning must be part of an uninterrupted traditional farming system. → For non-traditional farming systems, the burning of weeds and invasive species is permitted in piles. For example, weeds must be collected and burnt in a confined pile. → Any burning must be controlled and contained. For example, by establishing firebreaks around the perimeter of the area to be burnt (for example, by cleaning and raking the edges of the plot). → Burning must be carried out in conditions where the risk of fire starting is low. For example, an overcast sky with little or no wind.	→ Burning that is not part of an uninterrupted traditional agricultural system is not permitted. → It is forbidden to burn a primary ecosystem, a nature reserve or an area of ecological importance. For example, an area containing threatened or endangered plants or animal species. → It is forbidden to burn plastics, fuel oil, tyres or any other non-plant material.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE FOR BURNING ACTIVITIES

Preparing for burning

→ Burning can only be carried out on a plot that has had a rest of 10 years with a continuous production period of three years. Burning must therefore be spaced out over a period of at least thirteen years to respect the life of the soil and its fertility.

→ Land should be cleared of undergrowth and raked to minimise risk of hydrophobicity – a condition where soil repels water (see more information in Section 2.2.1).

→ Felling of trees should only be carried out with hand tools or hand machinery. For example, a machete, axe, or chainsaw.

After burning (activities to regenerate soil resources and ecosystem health)

→ Cover the soil with mulch or green cover crops to protect it.

→ Establish contour log terraces by felling damaged trees and positioning them horizontally across any downwards sloping areas to slow water runoff and soil erosion after rain.

Controled burn farming

Non controled burn farming

Conformity assessment for section 2.2.2

- The discussion with the farmer should help to identify the history of their different plots: Which crops follow one another? Is there a fallow period? If so, for how long? Do you ever burn some plots to put them under cultivation?
- If burning practices are identified, the discussion should then focus on the conditions of these practices, checking whether they are allowed or not, referring to the tables above.
- A visit to the plots can also be an opportunity to identify any traces of burning (blackened tree trunks, charcoal remains on the ground, under the vegetation cover).
- Finally, if photos, or a work monitoring book exists, check whether any burning has been recorded.

EXTRACT OF THE POS

2.2.3

Crop production, processing and handling systems shall return soil nutrients, organic matter and other resources removed through harvesting back to the soil by means of recycling, regeneration, composting, mulching and addition of organic materials and nutrients.

INTERPRETATION OF THE POS

The plants cultivated and sold take their nutrients from the soil and thus contribute to its impoverishment. This is an inevitable effect of agriculture, but its effects can be mitigated by good practices.

As organic agriculture cannot use synthetic fertilisers, it is crucial to put in place as many practices as possible to restore and maintain soil fertility. Farmers and organic actors must ensure that resources that have been extracted from the soil during production are replenished as well as possible.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE
FOR REPLENISHING SOIL RESOURCES

Many of the practices listed below are traditional in the Pacific, including fallowing, rotations and natural preparations.

Fertility management activities, such as:

- Crop rotation.
- Green manure, plough down or cover crops. For example Mucuna bean (Velvet bean) or other leguminous cover-crops or leguminous shrubs or trees, like pigeon pea.
- Inter-cropping.
- Incorporation of crop residues,
- Sub-soiling,
- Summer fallow,
- Composting*,
- On-farm or off-farm manure*,
- Soil amendments*,
- Side dressing,
- Foliar fertilisers,
- Biodynamic preparations,
- Soil inoculants,
- Inclusion of trees, especially of the legumes family.

**Referring to* *p.117*.

Use of organic matter to improve soil fertility

Green manure arachis pintoï

Fertility monitoring activities, such as:

- Observation of soil,
- Observation of crop health,
- Observation of prevalence in the plot or field of soil infertility indicator plants,
- Comparison of crop yields,
- Soil testing,
- Microbiological testing,
- Use of nutrient budget calculations to inform crop nutrient management plan aimed at protecting water quality.

EXTRACT OF THE POS

2.2.4

Grazing management shall not degrade land or pollute water resources.

INTERPRETATION OF THE POS

This criterion only applies to farms with grazing animals. Grazing animals can contribute to land degradation, particularly erosion, when they regularly trample over surfaces of fragile soils. They can also pollute water resources if animal manure/dung is allowed to leach into the water ressource.

BEST PRACTICE

EXAMPLES OF GOOD GRAZING MANAGEMENT PRACTICE TO REDUCE RISK OF LAND DEGRADATION AND WATER POLLUTION

Traditional animal husbandry practices in the Pacific rarely generate overgrazing, or with only extremely localized impact (around pigpen or around chicken coops).

Reducing land degradation from animal husbandry

- Restrict or control animal access to sensitive ecosystem areas or limit access during specific periods. For example, in nesting areas or during breeding season.
- Limit grazing during extreme weather events.
- Monitor grazing density – Different animal species have different grazing rates for different pastures, depending on the class and age of animal. Example: a steer of 6- months, needs at least 2 hectares of good pasture for 12-18 months to grow well before being slaughtered at its optimum growth (see fodder balance methods).

Reducing water pollution from animal husbandry

- Fence livestock away from waterways or establish natural barriers by planting trees or shrubs alongside waterways.
- Provide water troughs to prevent animals from trampling around watering holes.
- Feed animals away from water sources.
- Establish sediment basins to capture eroded or disturbed soil before it leaves the farm.
- Have an appropriate manure management system. For example, storage, or feedlot runoff.

EXTRACT OF THE POS

2.2.5

Relevant measures shall be taken to prevent or remedy soil and water salinisation.

INTERPRETATION OF THE POS

This criterion is only relevant in areas where salinisation is a problem.

Salinisation of soils can come from saline underground water or from surface water (e.g. sea surge or irrigation with saline water).

Care needs to be taken when water is pumped from freshwater lenses, as overexploitation of this resource can lead to its salination.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE

TO PREVENT AND REMEDY SOIL AND WATER SALINISATION

Salinisation prevention:

- ➜ Document the monitoring and management of soil and water salinisation.
- ➜ Examples of recommended activities to preserve freshwater lens:
  - Pumping water according to the swell, only when the tide is low,
  - Not pumping during dry periods,
  - Pumping when it rains,
  - Checking the conductivity of the water (as in indication of salt content) regularly, etc.

Remedial activities for soil salinisation:

- ➜ Irrigation with freshwater,
- ➜ Irrigation with rainfall.

EXTRACT OF THE POS

2.2.6

Operators shall not deplete or excessively exploit water resources and shall take action to preserve water quality. Where possible, they shall recycle rainwater and monitor water extraction.

Using a mounding system to optimize water management

EXAMPLES OF GOOD PRACTICE
FOR MANAGING WATER RESOURCES SUSTAINABLY

Take actions to increase soil water storage capacity, such as:

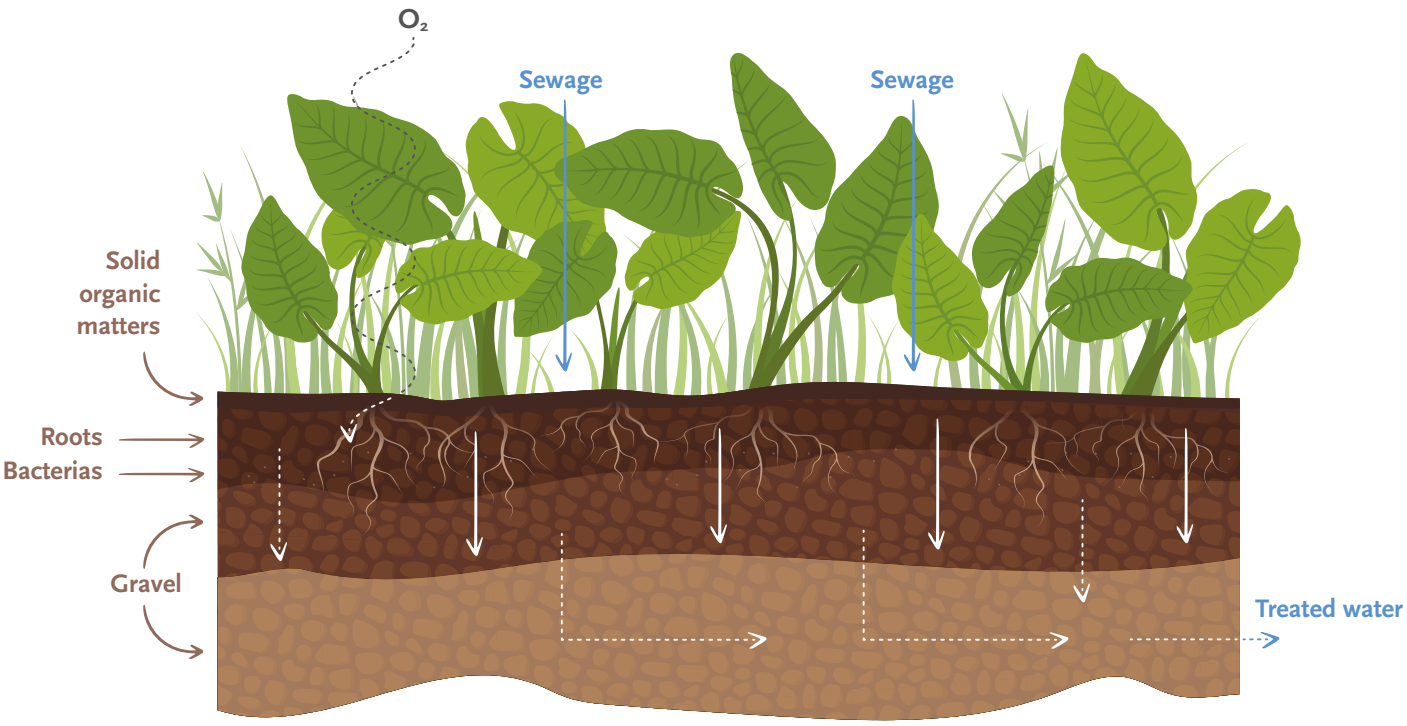
- ➜ Increasing soil organic matter. For example, by:
  - Adding compost,
  - Mulching,
- ➜ Land preparation. For example, creation of semi-circular trenches / plant pits.

Other activities:

- ➜ Proactive water quality monitoring activities, such as:
  - Tensiometer/monitoring,
  - Laser levelling/contouring,
  - Drip irrigation,
  - Micro-spray,
  - Sediment basin,
  - Storage of compost and fertilisers away from water.
- ➜ Taking care of waterways (ie. streams, lakes, rivers), to enhance habitat for fish and other aquatic species (water edge planting...).
- ➜ Developing knowledge and understanding of the farm/land's location within the watershed.
- ➜ Advice on waste water: Phyto-purification.
- ➜ Comply with local regulations on water resource management (catchment, drilling, etc.).

Please also refer to Section 2.2.7 and Section 2.2.8.

PHYTO-PURIFICATION SANITATION SYSTEM



EXTRACT OF THE POS

2.2.7

Operators shall apply water and inputs in a way that does not pollute water sources through runoff to surface water or leaching into ground water.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE
TO REDUCE POLLUTION OF WATER SOURCES FROM FARM RUNOFF

- → Establish sediment basins to capture eroded or disturbed soil before it leaves the farm.
- → Apply inputs respecting the recommended doses.
- → Apply manure only on vegetated soil and in reasonable doses.

Please also refer to Section 2.2.6 and Section 2.2.8.

EXTRACT OF THE POS

2.2.8

Operators shall use techniques that conserve water.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE
FOR USING WATER RESOURCES SUSTAINABLY

- → Collect and use harvested rainwater.
- → Use mulch to keep ground covered and cool.
- → Choose crops and other plants that are appropriate for the local climate and landscape, with water conservation in mind.
- → Practice conservation or restoration of forests, grasslands, wetlands, and other habitats, as a way to improve water holding capacity within the soil and healthy water cycling.
- → Use coconut coir (fibre) or dust in nursery soil.

Please also refer to Section 2.2.6 and Section 2.2.7.

EXTRACT OF THE POS

2.2.9

Organic processors and handlers shall, where relevant, install systems that permit the responsible use and recycling of water without causing pollution or contamination either by chemicals, or by animal or human pathogens.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE
REGARDING WATER SYSTEMS

- → Irrigation systems that use harvested rainwater or recycled water should be prioritised.
- → Actions should be taken to reduce water run-off.

REFERENCE TO A GUIDELINE

Guideline n° P1/2020

Use of chemically treated potable water in crop production

Organic farmers should ideally use only natural, uncontaminated water sources such as rainwater or streams etc. When water is sourced from the public supply, organic farmers should investigate the treatment method. In order to preserve microbial biodiversity where chemical methods have been used to treat the public supply, a producer should include an intervention step such as carbon filtration, an open air holding tank or mist/spray system to remove chemicals before using water for irrigation.

Details of chemical methods to treat the public water supply, the risks to the organic integrity of the farm, and mitigation/intervention steps to neutralize the risks should be included in the Organic Management Plan to be reviewed by the PGS Committee or 3rd party certifier for compliance to the POS.

Effective date: 22 June 2020

2.3 GENETIC ENGINEERING

EXTRACT OF THE POS

2.3.1

The use of genetically engineered organisms and their derivatives including animals, seed, propagation material and farm inputs, such as fertilisers, soil conditioners, vaccines or crop materials, is prohibited in organic production and processing. Contamination of organic products by genetically modified organisms (GMOs) will mean a loss of certification.

GMOs banned

EXTRACT OF THE POS

2.3.2

Organic processed products shall not use ingredients, additives or processing aids derived from GMOs.

EXTRACT OF THE POS

2.3.3

Inputs, processing aids and ingredients shall be traced back one step in the biological chain to the direct source organism (see definition) from which they are produced to verify that they are not derived from GMOs.

EXTRACT OF THE POS

2.3.4

On farms with split production (including parallel production), the use of GMOs is not permitted in any production activity on the farm.

The level of risk should be assessed based on an assessment of the local context, taking into account what is known and areas where information may be missing or partial. This assessment may be undertaken at a national or territory level by a certification body.

Table 4:
Summary of usage conditions of common inputs with a potential risk of GMO or GE in the Pacific.

Input	Recommended	Tolerated	Forbidden
Animal feedstock	Should be organic, non-GMO, and non GE.	Non-organic feedstock is only allowed when organic feedstock options are not available, or economically viable. Documentation required: evidence that the feedstock is not a GMO or GE variety.	Use of GMO or GE feedstock.
Animal manures	Should be sourced from organic farms where animals are only fed organic, non-GMO, and non-GE feedstock. All animal manures should be composted before use.	Sourcing from non-organic farms when organic sources are not available. Documentation required: evidence that animals have not been fed GMO or GE feedstock.	The animals producing the manure must not be fed GMO or GE feedstock.
Animal vaccines	Vaccination certificates must be provided.	Animal vaccines are allowed if mandated by the Government. For example, as a biosecurity measure to prevent the spread of diseases. Documentation required: vaccination certificates.	
Pesticides and weedicides (synthetic or natural)	Natural management methods	The controlled and contained use of pesticides and weedicides non-compliant with this standard are only allowed if mandated by the government. For example, as a biosecurity measure to prevent the spread of pests, such as varroa mite. Documentation required: application documentation (Eg. Date, quantity, substance used.	
Seeds, seedlings, and plant cuttings			GMO and GE seeds, seedlings, and plant cuttings are strictly forbidden. Documentation required: any documentation to allow identification of the variety and its source.

For criteria 2.3.1, 2.3.2, 2.3.3 and 2.3.4:

- ➜ Compliance documentation is required for any high-risk input used. See Table 4 for more information.
- ➜ You are strongly advised to obtain authorisation from your PGS or certification body prior to using a high-risk input.

Conformity assessment for sections 2.3.1, 2.3.2, 2.3.3 and 2.3.4

- ➜ Has a risk assessment been undertaken to assess which inputs were considered "high risk"?
- ➜ Does the documentation provide sufficient assurance that no GMO has been used?

2.4

WILD-HARVESTED PRODUCTS AND COMMON/PUBLIC LAND MANAGEMENT

EXTRACT OF THE POS

2.4.1

Wild-harvested products shall only be certified organic if they are derived from a stable and sustainable growing environment. The people who harvest/gather (or any other people) shall not take any products at a rate that exceeds the sustainable yield of the ecosystem or threatens the existence of the plant, fungal, micro-organism or animal species (including marine species), including those not directly exploited. The methods used for harvesting shall also not impact the sustainability of the targeted product.

Wild harvest can happen on land or in an aquatic environment. "Common/public land" should be understood to also refer to foreshore, or aquatic environment. "Products" can refer to plants or animals which are not cultivated.

Producers should maintain the productivity of wild harvest areas, including the native plants and animals it hosts, through the following activities:

- Estimate wild crop yield/production. For example, by counting the number of trees, or by using the yield of a smaller area to provide a baseline estimate for a broader area.
- Record and monitor wild harvest collection. Useful data to record: quantity, location, date and time of the harvest.
- Allow time for re-establishment of native species.
- Avoid harvesting close to nesting sites during breeding season.
- Plant, replant, or reseed, senile or depleted populations as needed.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE FOR SUSTAINABLE WILD HARVESTING

- Producer/farmer training in sustainable wild harvest practices. For example, harvesting animals, such as land crabs, only when they are at mature age, no harvesting of animals during breeding seasons.
- Rotating wild harvest areas to allow areas to replenish.
- Declaring non-harvest periods during critical times. For example, after natural disaster, or after higher volume harvesting periods, such as festive seasons.
- Monitoring harvest quantities to ensure a sustainable rate of harvesting.
- Conducting and maintaining harvest records on randomly sampled units of production to assess total production capacity.

Indigenous knowledge and practices

- Establishing no-take areas for a duration of time allowing the area time to replenish (eg: tabu zone).
- Establishing reserved areas that can only be harvested for special occasions or functions.

Turmeric collection

EXTRACT OF THE POS

2.4.2

Operators shall harvest products only from a clearly defined area where prohibited substances (those not listed in Appendix 1 – Tables 1 and 2) have not been applied for at least 3 years prior to harvest.

EXTRACT OF THE POS

2.4.3

The collection or harvest areas shall be at an appropriate distance from conventional farming areas, and potential sources of pollution and contamination. The size of buffer zones between wild and conventional farming areas shall depend on the character of the potential risks and the products harvested as well as on local conditions.

Buffer zones are required to decrease risks of contamination (e.g. via drift, flow) by substances not allowed under this standard. They can also be a full component of the organic production system, by creating habitats for beneficial organisms (such as birds or predators of crop pests).

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE

RELATING TO THE ESTABLISHMENT AND MANAGEMENT OF BUFFER ZONES SURROUNDING WILD HARVEST AREAS

Establishing buffer zones

- → Map the wild harvest areas with details of surrounding areas while noting any contamination risks.
- → Establish a suitable no-take zone to create a buffer between the identified risk area and the collection area.
- → Plant trees within the buffer zone to act as a wind break to lower the risks of contamination from spray drift.
- → Talk with neighbouring farmers to minimise the risk of unintended contamination on wild harvest areas:
  - Requesting neighbours not to spray pesticides or weedicides during windy days, or when the wind direction will increase the likelihood of spray drift onto your land;
  - Requesting upstream farmers not to fertilise or spray close to waterways or during rainy seasons.

Indigenous knowledge and practices

- → Establish no-take areas for a duration of time allowing the area to replenish.
- → Establish reserved areas that can only be harvested for special occasions or functions.

Managing buffer zones

- → Assess the identified contamination risks from surrounding areas and adjust buffer zones accordingly. For example, increase buffer zones adjacent to waterways during rainy seasons.

EXTRACT OF THE POS

2.4.4

Only organisms that live their whole life exclusively in the wild/common area can obtain organic certification.

Wild or common areas are typically held under collective, community or state ownership or agreements (not private/individual). They may be regulated by traditional rules defining how they can be used by individuals or communities.

Seashore Tamanu natural area

EXTRACT OF THE POS

2.4.5

The wild harvest area must not be grazed by conventional livestock unless the livestock conforms to the quarantine and other relevant requirements of Section 5 of this standard.

Please refer to the guidance provided under Chapter 5 for more information.

EXTRACT OF THE POS

2.4.6

The operator who manages the harvesting or gathering of products from wild/common resources shall be familiar with the defined collecting or harvesting area.

EXTRACT OF THE POS

2.4.7

Operators shall identify any appropriate authority that may have a landholding right, governance or oversight role over the area and obtain permission to access the area and undertake any harvesting or gathering. They shall work with a positive intent with these authorities and where appropriate provide payments for harvesting/access rights.

Minimum requirements

- The proper traditional governance processes and protocols should be followed when engaging in wild harvest or collection on Indigenous lands.
- Fair and equitable payment of goods and services must be paid without discriminating against gender, age or any other factor.

EXAMPLES OF GOOD PRACTICE
FOR WILD HARVESTING ON INDIGENOUS LANDS

Protocols and governance (guidance for non-Indigenous persons)

- Consult the relevant local government/customary authority office prior to engaging with the community.
- Consult the relevant agricultural officer prior to engaging with the community.
- Attend community consultation with the appropriate representative. For example, a local government official, agricultural officer, or member of the community.
- Present information and documentation in Indigenous language.

Indigenous knowledge and practices

- Consult with the appropriate person/people in the land-owning unit for permission prior to harvesting.
- Consult the community or present organic wild harvest business opportunities at relevant local meetings. For example, village meeting, women's meeting or youth meeting.

2.4.8

Operators shall identify any regulations and traditional rules/controls/taboos that have been established that relate to the access, management and harvesting/gathering activity in the area and comply with these.

EXAMPLES OF GOOD PRACTICE
TO SUPPORT COMPLIANCE WITH INDIGENOUS LAND AND RESOURCE MANAGEMENT

- Community consultation should be undertaken with the relevant land and resource owners, to obtain approval prior to harvesting and establish understanding of various resource management activities in place. For example, locations of reserved or no-take areas.
- Where needed, produce written agreement showing agreement by traditional authorities on customary land tenure and where appropriate authorities for alienated land tenure.

2.4.9

Operators shall take measures to ensure that wild, sedentary aquatic species are collected only from areas where the water is not contaminated by substances prohibited in these standards.

A risk assessment should be undertaken on contamination risks. The assessment should take into account the nature and size of operations which may be causing suspected contamination (e.g. conventional farm or open mine), and the environment in which the harvest is taking place (e.g. small stream vs large bay).

Please also refer to the guidance provided for Criteria 2.2.7.

CONFORMITY ASSESSMENT FOR SECTIONS 2.4.1 TO 2.4.9

→ Monitoring compliance with good wild collection practices is rarely easy, due to the diversity of contexts (regulations, traditional laws), collection practices (extent of the collection area, equipment and methods) or the nature of products collected. The proposal here is therefore to discuss with the people involved in this collection. The following questions can guide the discussion:

- Is the harvesting area clearly delineated?
- If some parts are close to conventional farming areas or potential sources of pollution and contamination, did you establish buffer zones and how?
- Who has custody over this harvesting area and how did you make sure they allow you to harvest and agree with your practices? In particular is there any regulations and traditional rules/controls on this area and how do you respect them?
- How do you make sure that the harvesting methods and materials used do not damage any local resource?
- How do you make sure no prohibited substances have been applied for at least 3 years prior to harvest?

→ Then a field visit should offer the opportunity to verify the correspondence between the answers and the field observations.

→ Finally, any document that can corroborate the answers to the questions should be consulted.

2.5 MITIGATING THE EFFECTS OF CLIMATE CHANGE

EXTRACT OF THE POS

2.5.1

The use of renewable forms of energy, e.g. wind and solar power, shall be considered for meeting the energy supply requirements of organic farms, processing units and other activities.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE FOR USING NATURAL RESOURCES

Lowering reliance on fossil fuels is highly important in the Pacific Islands, because of the increasing impacts of climate change.

Reducing energy requirements of the production system is the first step when considering energy usage. The following considerations can guide practices:

→ Design buildings to maximise natural light and airflows for heating and cooling.

→ Prioritise the use of solar dryers rather than heat driers for drying crops or crop parts. For example, copra production, dried vegetables and fruits, etc.

→ Production of biogas or biochar/activated charcoal from on-farm resources

Using renewable forms of energy such as solar, hydraulic and wind power is highly recommended.

Tamanu seeds solar dryers

EXTRACT OF THE POS

2.5.2

Operators shall identify sources of greenhouse gas emissions from their farming operations and aim to minimise these where practical. In ruminant production systems, active efforts shall be made to offset methane emissions.

BEST PRACTICE

GUIDANCE

FOR THE IDENTIFICATION AND MINIMISATION OF GREENHOUSE GAS EMISSIONS FROM FARMING OPERATIONS

Minimising and offsetting greenhouse gas emissions

- Promote the planting of tree species native to the area.
- Compost animal manure.
- Promote and prioritize digital solutions if possible.

EXTRACT OF THE POS

2.5.3

In selecting crops and animals, their suitability for dealing with and adapting to climate change effects shall be considered.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE FOR SELECTING CLIMATE-CHANGE RESILIENT CROPS AND ANIMALS

- → Promotion of traditional knowledge and polyculture systems in remote islands.
- → Growing several varieties of the same crop.
- → Growing locally adapted seed varieties or varieties suited to the specific site conditions.
- → Establishment of natural wind breaks using tree species native to the area.
- → Use of the proactive risk management tool (see introduction to this handbook).

CONFORMITY ASSESSMENT FOR SECTION 2.5.3

Discuss the following questions: What are the effects of climate change in your area? How are you adapting your farming and livestock practices? In particular, what efforts have you made to learn from traditional practices?

EXTRACT OF THE POS

2.5.4

In recognition of the energy inputs and greenhouse gas emissions associated with the production of resources used in the production and processing of organic products, operators shall reduce, recycle or reuse resources used in producing and processing organic products to increase the efficiency of resource use.

BEST PRACTICE

EXAMPLES OF GOOD PRACTICE FOR REDUCING, REUSING, AND RECYCLING RESOURCES IN ORGANIC FARM MANAGEMENT SYSTEMS

Human behavioural change

- → Strengthen and share knowledge on the value of soil in fighting climate change and how to increase carbon storage in the soil.
- → Increase the carbon storage capacity of soil. For example, by reducing deforestation, planting trees, avoid leaving the soils bare, restore crops, pastures, and degraded forests, plant nitrogen-fixing plants, use compost to support living soil organisms, collect water at the base of the plants.
- → Training and education on composting.

Conservative use of soil and water resources

Please refer to guidance provided in Section 2.2.

CONFORMITY ASSESSMENT FOR SECTION 2.5.4

Discuss the following questions: What resources do you consume for your activity? For each of them, what have you put in place to optimise their consumption, but also to recycle or reuse them?

CHAPTER 3

GENERAL REQUIREMENTS FOR CROP PRODUCTION AND ANIMAL HUSBANDRY

OUTLINE AND GENERAL PRINCIPLE

Organic agriculture develops viable and sustainable agroecosystems by using methods that are compatible with natural living systems and cycles. In some areas of the Pacific, traditional farming practices that have evolved over a long period of time align well with organic principles and are still being used. However, in many other areas, farms will need to enter a conversion period to align them with organic practices.

The most important thing is to establish a farming system that will work in the long term; this might need changes in soil management, crop rotation, livestock and infrastructure.

3.1 CONVERSION REQUIREMENTS

3.1.1

There shall be a period of at least 12 months organic management for annuals and at least 18 months for perennials that meets all the requirements of these standards before the resulting product can be considered organic. An exemption to this requirement may be approved where there is a verifiable record of the unbroken use of traditional practices with no inclusion of non-permitted inputs or activities.

3.1.2

For certified organic production, the start of the conversion period shall be calculated from the date of application to the certification body. For non-certified production, the start of the conversion period shall be calculated from the time that organic management started and that the last use of non-permitted substances occurred.

3.1.3

A period of at least 3 years must elapse since the last application of non-permitted inputs before full certification status can be attained.

FUTURE AMENDMENT NOTE:

During the workshops to draft this handbook, there has been a proposal to amend the POS to remove the distinction between perennials and annuals. As this proposal is widely supported, it has been pre-emptively included in the handbook, which means the guidelines are more permissive than the POS.

Converting from conventional to organic farming requires time for change for the land, its plants and animals, and the farmer. The conversion period may require specific management actions which will not be needed once the organic system is established. Time allows any accumulated chemical inputs to be expulsed from the plant, animal or soil.

How to determine the starting dates?

Start dates can be applied retrospectively as outlined in the table below.

Table 1:
Guidance for the starting dates of conversion periods for certified and non-certified organic production systems.

	Certified organic production systems (eg. recertification)	Non-certified organic production systems
Start date of conversion period	From the date of application to the third-party certifying body.	The date the organic management system was put in place, **or** the date the last prohibited input was applied - whichever date is later.

NB.: Note that in all cases it is important to keep proof of the date, for audit purposes.

What can be considered a "verifiable record of the unbroken use of traditional practices"?

It is assumed that traditional practices do not use forbidden inputs. However, this needs to be verified.

Verifying this aspect requires taking time to conduct a quick evaluation of the history of the farm:

- Understanding the historical management of the farm (farmer and neighbours can remember and attest to the history of the farm or plot, who has been custodian and that no forbidden inputs have been used).
- Looking for evidence (documents, observations, discussions) that there may have been use of chemicals.

How to use the Organic Pasifika labelling?

After a start date for the conversion period has been determined then the POETcom labelling guidance can be determined, as described in the Table 2 below.

Table 2:
Guidance on the use of POETcom labelling applied from the start date of the conversion period.

Please refer to the guidance in Criteria 3.1.2 for more information on the starting dates of conversion periods.

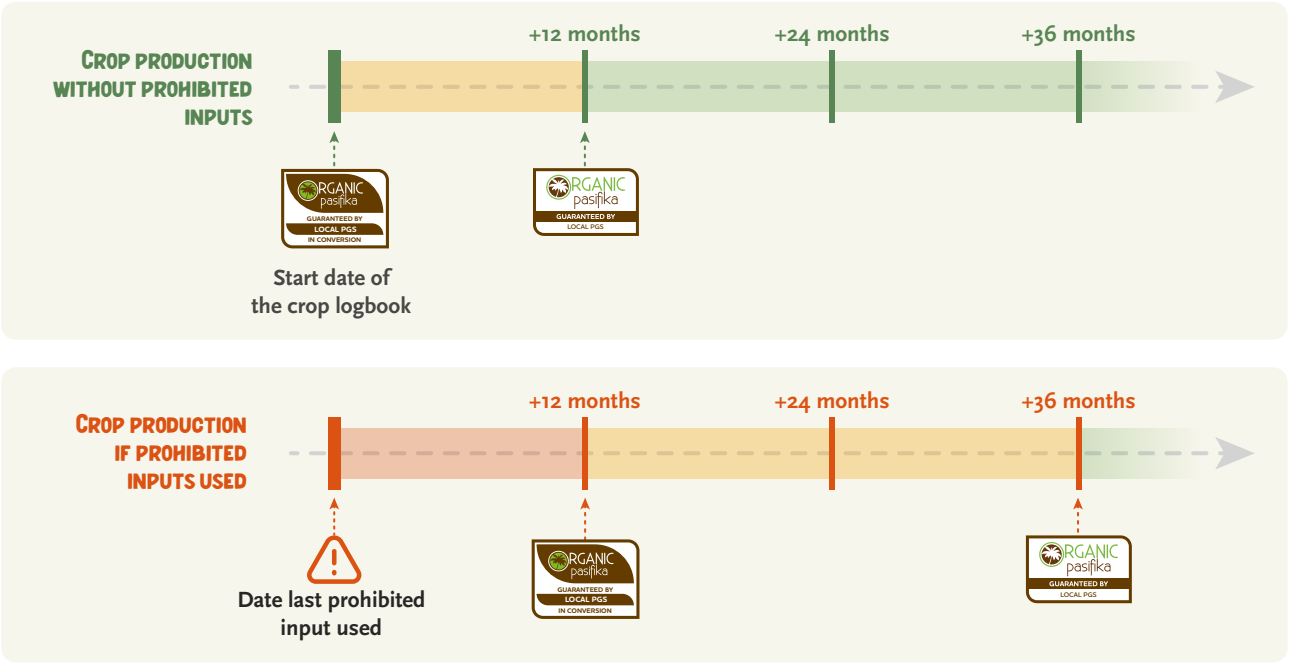
Verifiable record of the unbroken use of traditional practices during the last 36 months	No use of forbidden input during the last 36 months		After using a prohibited input	
Award of the Organic Pasifika label	Award of the Organic Pasifika label in conversion	Award of the Organic Pasifika label	Award of the Organic Pasifika label in conversion	Award of the Organic Pasifika label
Immediately	Immediately	12 months	18 months	36 months

Notes:

3.1.1*: An exemption to this requirement may be approved where there is a verifiable record of the unbroken use of traditional practices with no inclusion of non-permitted inputs or activities.

3.1.2: The start of the conversion period shall be calculated either 1) from the date of application to the certification body or 2) from the time that organic management started and that the last use of non-permitted substances occurred.

VERIFIABLE RECORD OF THE UNBROKEN USE OF TRADITIONAL PRACTICES DURING THE LAST 36 MONTHS



CONFORMITY ASSESSMENT FOR SECTIONS 3.1.1, 3.1.2 AND 3.1.3

→ First clarify the start date of the conversion period and make sure it follows the rules presented in table 1.

→ Then use the 2nd table to determine what is the situation and make sure the organic label has been properly used.

3.2 SPLIT AND PARALLEL PRODUCTION

EXTRACT OF THE POS

3.2.1

Split production – if the whole farm is not converted, the organic, in-conversion and conventional parts of the farm shall be clearly and continuously separated.

FUTURE POS AMENDMENT NOTE

Properties under 4 hectares are not permitted to have split production and are permitted to have only one level of organic certification status.

An exemption to this requirement may be permitted to allow for the continued ownership and management of non-organic animals on a property, if these are for the operator's own use.

Split farming of non-organic vines and organic sugar cane (with a hedge in the process of being planted) – island of Rangiroa

FUTURE POS AMENDMENT NOTE

During the workshops to draft this handbook, there has been a proposal to amend the POS to remove the distinction between farms of more or less than 4has.

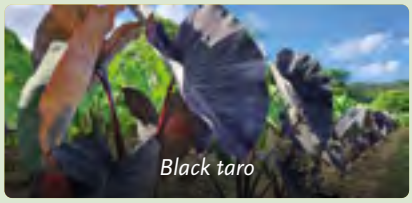
This criterion only applies to farms in split production.

Split production is the co-existence on a farm of differentiable organic and non-organic production. "Differentiable" means that they can be distinguished with the naked eye: this could mean different varieties for plant production and different breeds for animal production.

HOW TO MANAGE SPLIT OPERATION FARMS BASED ON THEIR STATUS?

- ➜ If a farm has a combination of fully organic, in-conversion and conventional management systems, these must be clearly and continuously separated to avoid identified and unidentified risks of contamination.
- ➜ Documentation must be kept proving that no contamination or non-compliant activity has occurred within the in-conversion or fully organic production systems.

Plant production

ORGANIC		CONVENTIONAL		
 *Pumpkins*	+	 *Butternut*	= ✗	because they cannot be differentiated throughout the production cycle
 *Beef tomatoes*	+	 *Round tomatoes*	= ✗	because they cannot be differentiated throughout the production cycle
 *Pumpkins*	+	 *Tomatoes*	= ✓	because they can be differentiated throughout the production cycle
 *Kanabo taro*	+	 *Black taro*	= ✓	because they can be differentiated throughout the production cycle
 *Boonere taro*	+	 *Tahiti taro*	= ✗	because they cannot be differentiated throughout the production cycle

Animal production

ORGANIC		CONVENTIONAL		
 *Brahmousin cattle*	+	 *Holstein cattle*	= ✔	because they can be differentiated throughout the production cycle
 *Naked neck broiler chickens*	+	 *Red laying hens*	= ✔	because they can be differentiated throughout the production cycle
 *Laying hens*	+	 *Broiler chickens*	= ✘	because they cannot be differentiated throughout the production cycle

EXTRACT OF THE POS

3.2.2

Parallel production – simultaneous production of the same organic and non-organic crops or animal products can be a useful process to build experience and confidence in the conversion process. However, it will only be permitted where such production is undertaken in a way that allows clear and continuous separation of all products claimed to be certifiable as organic. All cases of this production shall be documented.

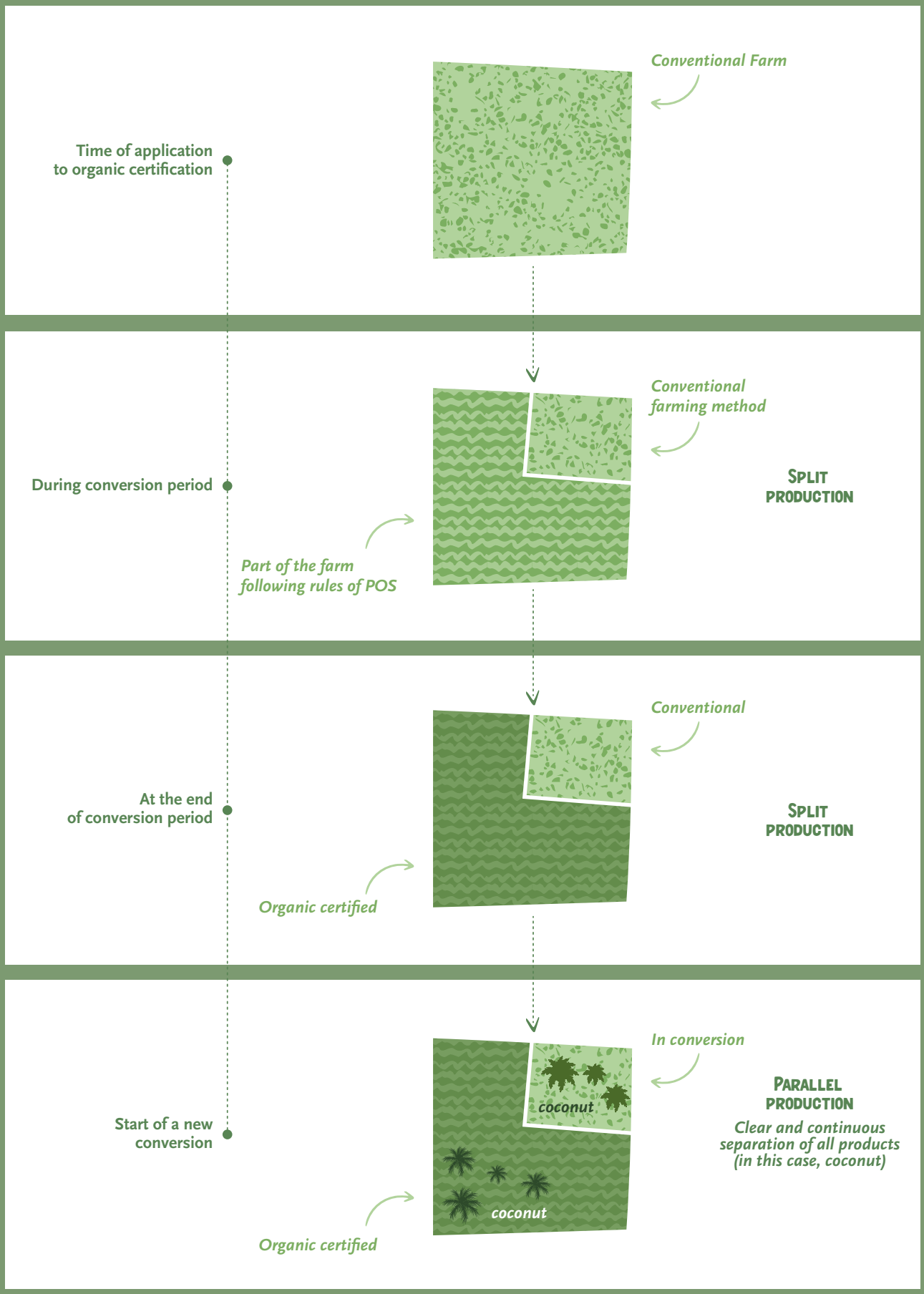
INTERPRETATION OF THE POS

This criterion only applies to farms in parallel production.

HOW CAN FARMS WITH PARALLEL PRODUCTIONS BE MANAGED DEPENDING ON THEIR CIRCUMSTANCES?

- → Only parallel production of "in conversion" and "fully organic" management systems is permitted.
- → The co-existence of organic or in-conversion and conventional management systems may exceptionally be tolerated with an objective of converting the conventional system by a pre-defined date in consultation between the producer and the labelling body.
- → If a property has fully organic, in-conversion and conventional management systems in place, they must be clearly and continuously separated to avoid identified and unidentified risks of contamination.
- → Documentation must be kept to show that no contamination or non-compliant activity has occurred under the in-conversion or fully organic management systems.

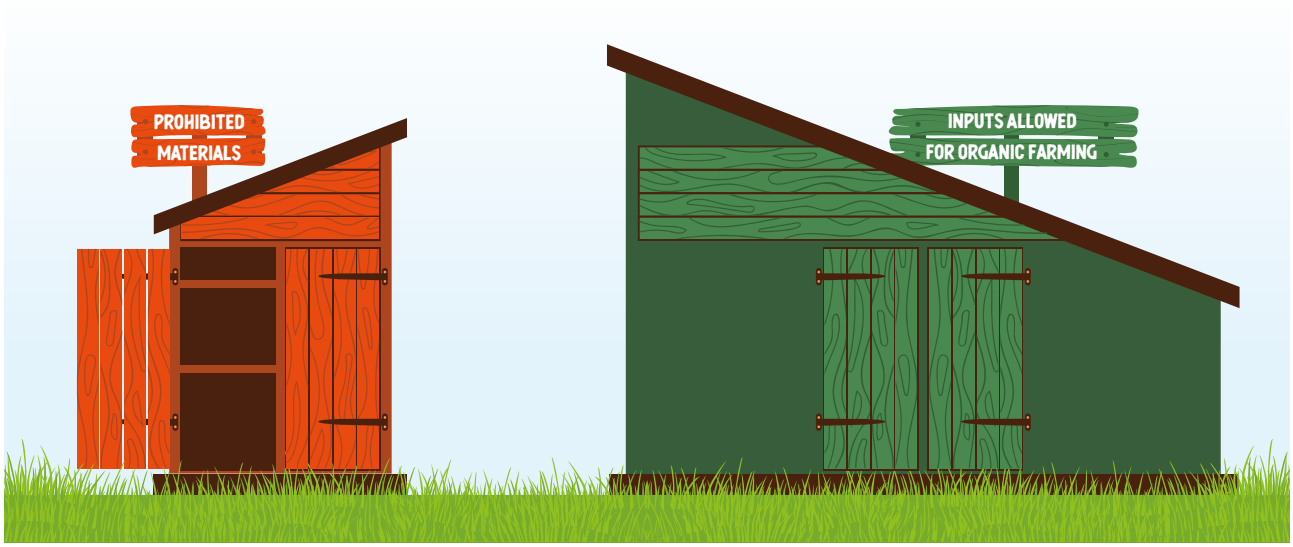
SUMMARY: CONVERTING ALL OR PART OF A FARM



EXTRACT OF THE POS

3.2.3

Prohibited materials shall be stored in separate locations from those where organic products are handled.



3.3 MAINTENANCE OF ORGANIC MANAGEMENT

EXTRACT OF THE POS

3.3.1

Land converted to organic production shall not be alternated (switched back and forth) between organic and conventional production.

CHAPTER 4

CROP PRODUCTION

4.1

CHOICE OF CROPS AND VARIETIES

BACKGROUND

Pacific farmers have a long tradition of selecting and growing crops that are adapted to local conditions and needs, including the management of climatic and other risks. This is reflected in the large number and variety of internationally important crops that are grown by Pacific farmers, including taro, coconut, yam, sweet potato, banana and cassava.

However, the Pacific nations are isolated, access to imported seeds is limited (in terms of diversity, quality) and local production of quality seeds is limited. In many cases, the purchase of imported seeds is necessary for the farmers' operations. Even though traditional practices align well with optimal modern organic practices, the biosafety standards of the respective countries enforce in some cases the systematic treatment of seeds.

4.1.1

Seeds and planting materials shall be propagated under organic management for one generation in the case of annuals, and for two growing periods, or 12 months, for perennials, whichever is longer, before being certified as organic seed and planting material.

FUTURE POS AMENDMENT NOTE

During the workshops to draft this handbook, there has been a proposal to amend the POS to remove the distinction between perennials and annuals. As this proposal is widely supported, it has been pre-emptively included in the handbook, which means the guidelines are more permissive than the POS.

In practice, planting material must be propagated under organic management for one generation before they can be certified as organic seed and planting material.

This criterion concerns the on-farm production of organic seeds and planting material.

4.1.2

Operators shall use organic seed and planting material of appropriate varieties and quality. The following exemption will apply until 2013: if organic seed, planting material and seedlings are not commercially available, conventional (non-chemically treated) seed, seedlings and planting material may be used. Chemically treated seed should only be used as a last resort and should be cleaned of any chemicals before being brought onto the property.

This Guideline replaces the previous ones (POS1_2013, POS1_2018 & POS2_2020 (POS): Organic seeds and plant material) and provides an extension of the EXEMPTION for conventional seed under the Pacific Organic Standard.

JUSTIFICATION:

The original exemption expired in 2013, but due to the continued difficulty for Pacific producers to source organic seed, an extension was granted. The extension of the exemption expired at the end of 2020 and was reviewed by the POETCom Technical Committee in November 2020. The Committee determined that the situation in the Pacific had not changed significantly and that it remained difficult for Pacific producers to source organic seed.

Implementation

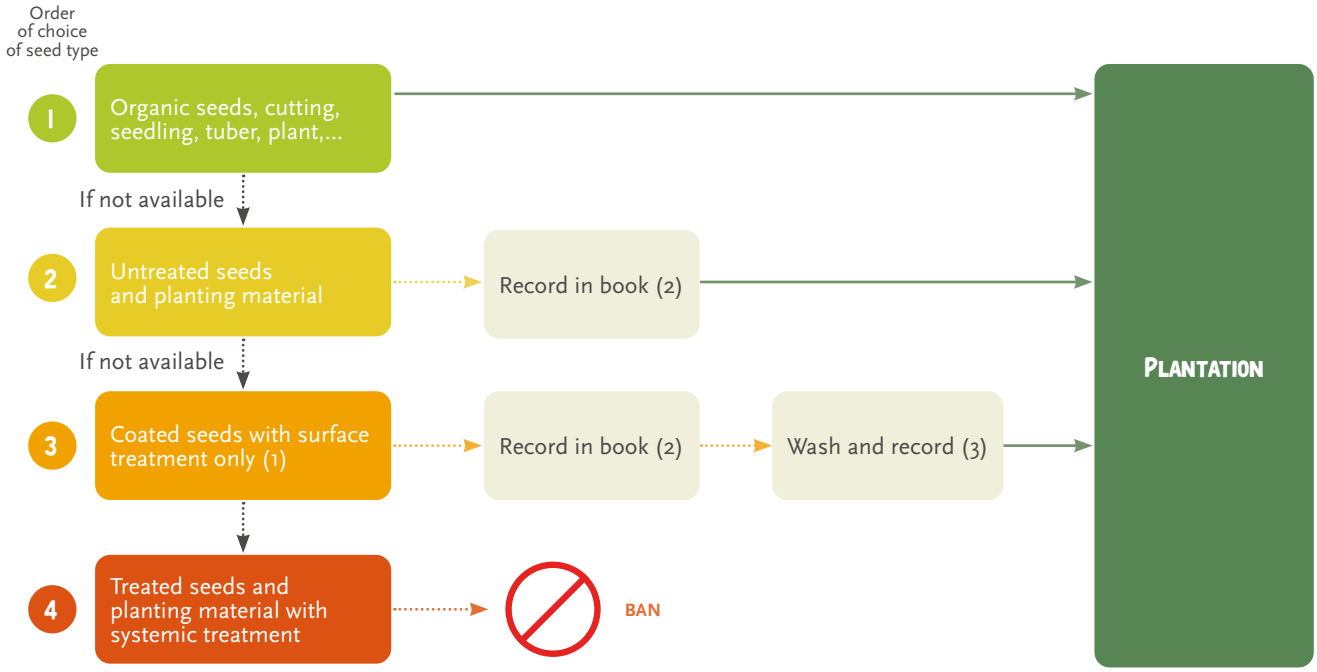
The exemption in 4.1.2 will be extended until further notice.

If organic seeds, planting material and seedlings are not commercially available with organic certification, conventional seeds, seedlings and untreated planting material can be used.

Seeds or planting material treated with chemicals shall only be used as a last resort and shall be cleaned of any chemicals before being brought onto the property, following the process **below**.

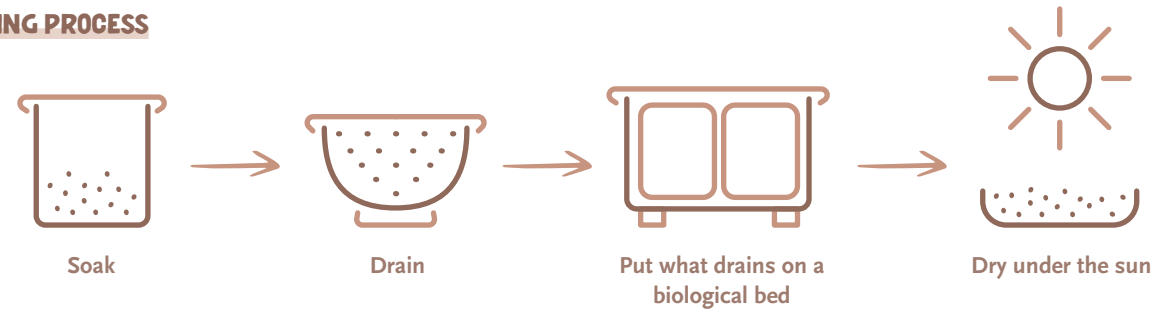
Systemic seed treatments are not allowed because the substance penetrates the seed and cannot be removed. Before using treated seeds, farmers must identify and keep records of the treatment substance.

Figure 1:
Process for using seeds and planting material in organic agriculture.



1. Coated seeds are allowed conditionally if they are washed using the guidance below.
2. Documentation regarding the purchase and washing of treated seeds must include: date, quantity, supplier, packaging treatment and washing records.
3. Recommended treated seed washing procedure:
   - Immerse the seeds in warm water,
   - Mix to wash the seeds well,
   - Drain the seeds and rinse them in cold water,
   - All the water used must be poured into a wastewater treatment system or allowed to evaporate in order not to contaminate the environment.

Washing process



Summary seeds and planting material

Recommended	Tolerated	Forbidden
Producing own organic seeds and planting material on-farm (conversion time of one generation for annuals and 1 year for perennials). Buying certified organic seeds and planting material.	Use conventional seeds or planting material, if organic planting material not available. But only coated seeds tolerated.	Seeds with systemic treatment. GMO seeds.

Certified organic seeds Recommended	Untreated conventional seeds Tolerate	Conventional seeds Tolerated with cleaning	Conventional seeds Prohibited

Where to find information on seed packaging?

On the front of the packet, if you do not see the word "organic" clearly on the seeds, look on the back of the packet or on the adhesive label on the box. Any unobtrusively stated treatment.

Non-systemic active substances	Systemic active substances
→ Fludioxonil → Thirame → Captane → Iprodione → Sapphire (pre-mix-coat) → Activ Blue	→ Mefenoxam → Topsin

Cleaning seeds in an organic bed

The idea is to reproduce farm soil.

In a waterproof concrete plastic or metal container, mix 70% soil and 30% straw. The specific bacteria that develop break down pesticide molecules.

Generates zero ultimate waste!
2 m^3 of soil-straw mixture treats 1 m3 of effluent!

If you are unable to find any information, ask your certifier for advice. Describe the package, give the brand name or bring or send a photo.

4.2 LENGTH OF CONVERSION PERIOD (PLANT PRODUCTION)

INTERPRETATION OF THE POS

A conversion period enables the establishment of an organic management system and the build-up of soil fertility.

Pacific background: Participatory Guarantee Systems (PGSs) do not have the same interpretation of conversion time. Some have set up a conversion label to help farmers in their transition to organic farming.

EXTRACT OF THE POS

4.2.1

Plant products from annual production shall only be considered organic when a conversion period of at least 12 months has elapsed prior to the start of the production cycle. In the case of perennials (excluding pastures and meadows), a period of at least 18 months prior to harvest is required.

See Guidelines for 3.1.

An exemption to this requirement may be granted where there is an auditable record to prove that the POS requirements have been met.

EXTRACT OF THE POS

4.2.2

There shall be at least a 12-month conversion period before pastures, meadows and products harvested from them can be considered organic.

An exemption to this requirement may be granted where there is an auditable record to prove that the POS requirements have been met.

EXTRACT OF THE POS

4.2.3

The conversion period may be extended depending on past land use, management capacity of the operator and environmental factors.

HOW TO DETERMINE IF THE CONVERSION PERIOD SHOULD BE EXTENDED, AND BY HOW LONG?

See chapter 3.1 Conversion.

CONFORMITY ASSESSMENT FOR SECTIONS 4.2.1, 4.2.2 AND 4.2.3

- → Check record.
- → Any other documentation.

4.3
DIVERSITY IN CROP PRODUCTION

Variety of market-garden crops

EXTRACT OF THE POS

4.3.1

Operators shall manage pressure from insects, weeds, diseases and other pests while maintaining or increasing soil organic matter, fertility, microbial activity and general soil health. For annual crops, intercropping, companion planting or crop rotation shall be practiced.

EXTRACT OF THE POS

4.3.2

For perennial crops that are grown as monocultures, other plants shall be intercropped; where this is not possible, other means of securing diversity shall be applied.

4.4
SOIL FERTILITY AND FERTILISATION

EXTRACT OF THE POS

4.4.1

Material of microbial, plant or animal origin shall form the basis of the fertility programme.

EXTRACT OF THE POS

4.4.2

Nutrients and fertility products shall be applied in a way that protects the soil, water and biodiversity. Brought-in manures shall be composted and only applied at rates that do not cause negative environmental impacts.

EXTRACT OF THE POS

4.4.3

Material applied to the land or crop shall be in accordance with Appendix 1, Table 1.

EXTRACT OF THE POS

4.4.4

Manures containing human excrement (faeces and urine) are prohibited for use on crops for human consumption.

EXTRACT OF THE POS

4.4.5

Mineral fertilisers shall only be used in a programme to address long-term soil fertility needs together with other techniques such as addition of organic matter, green manures, rotations and nitrogenfixing plants, e.g. legumes. Fertilisers of mineral origin shall be applied in the form in which they naturally exist and are extracted. They shall not be rendered more soluble by chemical treatment, other than the addition of water.

See chapter on inputs (Appendix 1)

REFERENCE TO A GUIDELINE

Guideline n° P2/2016

Above Ground Crop Production

A. Hydroponic crops without living organic matter as substrate, even with organic liquids, is not permitted.

B. Crops grown in raised-beds, containers or Roof-top farming must comply with all requirements of the POS. In addition Organic crops are grown on living soil regularly enriched with organic matter using at least compost and thick non-synthetic mulch. Directly bringing nutrients to the crop in bypassing the work of macro & microorganisms is not permitted. Materials used for containers or raised bed construction must comply with requirements of the POS.

C. Soilless production of sprouts is allowed as per the following:

GENERAL PRINCIPLES

Sprouts are grown without land in clean water.

RECOMMENDATIONS

The use of naturally sourced spring or rainwater is preferable to mains water.

STANDARDS

1. Organically certified sprouts must be produced only from organically certified seeds.
2. The production process must give due consideration to the potential effects of by-product effluent and other waste products to the manufacturing surrounds.
3. Water used in production must be at least of World Health Organisation (WHO) standard for (potable) drinking water.
4. No growth promoting, fungicide or other prohibited additives may be mixed with sprout water.
5. The growing medium must be hygienic, non-permeable and able to be cleaned effectively using organically approved methods. Cleaning methods must in no way pose a contamination risk to sprout production.

Effective date: 30 January 2016

4.5

PEST, DISEASE AND WEED MANAGEMENT

EXTRACT OF THE POS

4.5.1

Physical, cultural and biological methods may be used for pest management, e.g. use of pate (Coleus blumei) underplanting for the control of armyworm in taro.

Coleus and taro

EXTRACT OF THE POS

4.5.2

Pest management products that are prepared at the farm from local plants, animals and micro-organisms are permitted only when the measures in 4.5.1 are not sufficient. If the ecosystem or the quality of the organic products might be jeopardised, the inputs listed in Appendix 1, Table 2, may be used. However, their use is restricted and they can only be applied if there is a risk of serious loss of production or product quality. The ingredients used, including nonactive ingredients such as carriers and wetting agents, must not be known carcinogens, teratogens, mutagens or neurotoxins. Wetting agents shall be from natural sources.

Slurry

EXTRACT OF THE POS

4.5.3

Physical methods for pest, disease and weed management are permitted. Heat can only be used if no other method is effective.

See chapter on inputs (Appendix 1)

4.6
AVOIDING CONTAMINATION

INTERPRETATION OF THE POS

OUTLINE AND GENERAL PRINCIPLE

Many Pacific countries have a relatively low level of general environmental contamination due to their isolation and low industrial activity. There are, however, significant contamination risks and issues in some areas resulting from high population densities and historical activity coupled with often fragile environments. Pacific organic production must take all relevant measures to ensure that organic soil and food are protected from contamination and to minimise broader environmental impacts.

Contamination is very context dependent. Therefore, situations vary substantially. Contamination prevention is a very broad concept, which is difficult for auditors to control.

When an organic property or product is subject to contamination by a prohibited input as a result of a regulatory biosecurity or other enforcement programme, the certification status of the farm and product must be reviewed. However, this will not necessarily result in the loss of certification; this decision is left to the relevant PGS or CB. The organic producer should actively liaise with the regulatory agency to identify alternative enforcement strategies to minimise contamination.

EXTRACT OF THE POS

4.6.1

It is the operator's responsibility to use all measures possible to avoid potential contamination and limit contaminants in organic products. These measures include establishing barriers and buffer zones and advising neighbours of the area's organic status.

On the left, treated sugar cane. On the right, buffer fallow area to prevent contamination of the organic farm

INTERPRETATION OF THE POS

The farmer shall employ measures including barriers and buffer zones to avoid potential contamination and to limit contaminants in organic products. Where neighbouring or regional activities may pose risk of contamination or related risks to certified farm units, appropriate buffer zones shall be established and/or maintained.

BEST PRACTICE

These may include:

- ➜ Roadways and fallow areas
- ➜ Tree and shrub zones along borders
- ➜ Sections of crops or produce that shall be deemed uncertified along relevant boundaries.

Effectiveness of such buffer zones shall be aimed at preventing contamination. A timeline for development shall be established, with monitoring such as residue testing where risks to end-product integrity are noted as significant.

1. Buffer zone widths and lengths shall be determined on a case-by-case basis and shall be accompanied by on-farm risk management. As a guide, buffer zones should be no less than 8 meters in the case of intensive cropping or broadacre cropping activities.
2. Where water contamination, or waterborne agents, pose risks to certified farms, appropriate management practices and technical means such as spillways, trenches, run-offs and/or wetland areas may be required to ensure no contamination of the farm may occur.

EXTRACT OF THE POS

4.6.2

In case of reasonable suspicion of contamination, tests shall be conducted to establish contamination levels. Organic product samples must not contain chemical residues that exceed 10% of the maximum limit for such residues where historical contamination is present (based on national, regional or Codex chemical residue standards).

Aerial spreading of synthetic pesticides on non-organic farms poses a significant risk

4.6.3

For synthetic coverings such as mulches, fleeces, insect netting and silage wrapping, only products based on polyethylene and polypropylene or other polycarbonates are permitted. These shall be removed from the soil after use and shall not be burnt.

4.6.4

All equipment from conventional farming systems shall be thoroughly cleaned of potentially contaminating materials before being used on organically managed areas.

CHAPTER 5

ANIMAL HUSBANDRY

Context

Animals are an essential component of the mixed farming systems found throughout the region. They have cultural value, and also contribute to food security and soil fertility. Pacific farmers have long raised pigs and chickens, while other animals are also important in some regions.

The Pacific Organic Standards were designed to comprise the best traditional strategies and the principles of organic animal husbandry. The adoption of this standard aims at ensuring that livestock husbandry is based on maintaining a harmonious relationship between land, plants and livestock, with minimum disruption to ecosystems. It will also ensure that the physiological and behavioral needs of livestock are respected, and the animals are fed with good-quality organically grown feedstuffs.

Scope: This livestock standard covers livestock and livestock products from the following: cows and cattle; pigs; sheep and goats; deer; poultry; crocodiles; rabbits; bees, and other commonly farmed animals (except aquaculture farming covered in chapter 6).

5.1 ANIMAL MANAGEMENT

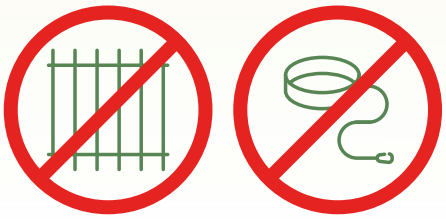
Animal welfare is much more than just a question of density (5.1.3). Numerous other criteria, which are taken up by the POS as well as by all organic farming standards, must be taken into account when considering animal welfare-friendly farming.

The World Organisation for Animal Health (OIE) defines animal welfare as follows:

"Animal welfare means the physical and mental state of an animal in relation to the conditions in which it lives and dies.

An animal experiences good welfare if the animal is healthy, comfortable, well nourished, safe, is not suffering from unpleasant states such as pain, fear and distress, and is able to express behaviours that are important for its physical and mental state.

Good animal welfare requires disease prevention and appropriate veterinary care, shelter, management and nutrition, a stimulating and safe environment, humane handling and humane slaughter or killing."



Healthy	Sufficiently comfortable	Well nourished	Safe	Humanely slaughtered
				

Grassy and shady runs and paddocks for hens on an atoll

How can animal welfare be promoted?

The use of animals in agriculture, education and research, and for companionship, recreation and entertainment, makes a major contribution to the wellbeing of people. However, it carries with it an ethical responsibility to ensure the welfare of such animals to the greatest practicable extent. Moreover, improvements in farm animal welfare can often improve productivity and food safety, and hence lead to economic benefits.

5 widely recognized freedoms are to be taken into account with equal importance, as they together contribute to animal welfare:

- Freedom from hunger, malnutrition and thirst
- Freedom from fear and distress
- Freedom from physical or thermal (heat) discomfort
- Freedom from pain, injury and disease
- Freedom to express normal patterns of behaviour

For more details, follow this link to the full text of the recommendations of OIE for animal welfare.

Video available:
The Five Freedoms of Animal Welfare - TOLFA Education

Video

Study case

In poultry farming:

Chickens need to get rid of parasites by taking dust baths. A farmer set up several dustbaths, consisting of sand, soil, ash and diatomaceous earth, at different points on her run. However, she found that when it rained, the dustbaths turned to mud and the hens could no longer use them. She therefore created small shelters under which she installed the dustbaths so that the hens could enjoy them in any weather.

In cattle farming:

In order to reduce the trauma of separating calves from their mothers at weaning, one cattle farmer leaves the calves in their stock yard with the mothers grazing in a paddock nearby. In this way, the mothers remain close by to allow a smooth transition. They also keep the calves with an old bull, which is used to being handled, works them for several days: they take them out of and back into the stock yard, move them to different places, etc. The aim is to get them used to the handling and to reduce their stress when they have to be brought in for veterinary care or slaughter.

As all criteria from 5.1.1 to 5.1.9 explore complementary dimensions of animal welfare and are interconnected, they are all listed below and guidance on all of them is then provided.

BODY CONDITION SCORING (BCS) IN CATTLE FARMING (BOS TAURUS)

A BREEDING MANAGEMENT TOOL

DEFINITION AND BENEFITS

The Body Condition Score (BCS) is a standardised score between 0 and 5 of the fatness of animals. It is determined via a visual and manual assessment of fat cover at various points of the body. It is a simple method for adjusting the animals' feeding according to the objectives pursued (slaughter/breeding).

HOW TO BODY CONDITION SCORE

BCS does not require any specific equipment. It is a fast and accurate method that everyone can use. To do it, place your left hand at the tailhead and your right hand flat against the last two ribs. The assessment will be more accurate if several different people score the same animal.

SCORESHEET

	THIN		MODERATE		FAT	
Score	**0**	**1**	**2**	**3**	**4**	**5**
REAR score: left hand on tailhead	• Skin adhering • Difficult to pinch	• Stretched skin • Can be pinched	• Skin loose • Some identifiable fat deposits	• Supple skin • Handful of fat	• Supple skin • Ample handful of fat	• Plump skin • Full handful of fat
FLANK score: right hand flat against the last two ribs	• Skin is stretched and tight against the ribs • No flesh on ribs	• Skin is stretched and tight against the ribs • Protruding ribs	• Supple skin • Ribs still quite visible	• Skin "rolls" between the hand and the bone • Dip between ribs	• No dip between ribs	• Thick "padding" covering the ribs

BCS = 2

BCS = 3

BCS = 4

KEY POINTS ABOUT BCS

- an external indicator of the total amount of fatty tissue (fat).
- good indicator of the herd's ability to breed regularly.
- an indispensable tool for the feeding of suckler cows.

OTHER SCORING METHODS

- **Biopsy:** taking a fat sample from the rump is a safe but more costly method (surgical).
- **Ultrasound:** a device that emits ultrasounds and can measure fat thickness. This method is quick and its use is on the rise.

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PROVINCE SUD

BODY CONDITION SCORING (BCS) IN CATTLE FARMING (BOS TAURUS)

A BREEDING MANAGEMENT TOOL

SCORE > than 4
TOO FAT

⇢ **RISKS:**

An obese cow is at risk of:

- calving difficulties (mainly because the internal accumulation of fat makes the canal too narrow), requiring:
  - a caesarean section;
  - an episiotomy.
- post-partum disorders such as:
  - retained placenta;
  - mastitis or cysts;
  - large fat accumulations inside the pelvic cavity, which can have an impact on fecundity (the cow is not impregnated by the bull).

⇢ **RECOMMENDATIONS:**

- monitor obese cows before and after calving and reduce the quantity and quality of fodder if needed;
- prolong suckling to reach a BCS of 3 at the next calving.

SCORE < 2
COW TOO THIN

⇢ **RISKS:**

When calving, a cow in poor physical condition is at risk of:

- not delivering the calf;
- metritis;
- poor involution of the uterus.

These complications disrupt the cycle's natural resumption post-partum and are factors behind infertility during breeding. This leads to a longer calving interval.

⇢ **RECOMMENDATIONS:**

- increase or improve the animal's feed;
- wean the calf as soon as possible (at 7 months) to reach a BCS of 3 to 3.5 at the next calving.

REMEMBER

⇢ **DURING GESTATION:** the cow can draw from its reserves but without dropping below a BCS of 1.5.

⇢ **AROUND DELIVERY:** the cow must begin gaining weight towards the end of gestation (final 2 weeks). This helps with uterine involution, going into heat and milk production. The cow must have sufficient feed (fodder supplemented by 1 to 3 kg of energy concentrate if possible (flushing).

⇢ **BREEDING:** 60 days after calving, the cow must have a BCS of 2 to 3 for gestation to resume and reach the target of one calf per cow per year.

SCORE BETWEEN 2.5 AND 3.5: OPTIMUM

⇢ **FOR BREEDING: the cow must have a score of between 2 and 3 and be gaining weight to reach its highest fecundity and fertility rates.**

⇢ **AT CALVING:** the cow's score must be between 3 and 3.5 to:

- have enough reserves to feed its calf
- avoid the risk of calving or post-partum complications if it is obese

OPTIMUM

BCS between 2 and 3 → **BCS between 3 and 3.5**

BREEDING — GESTATION — CALVING

OTHER BENEFITS OF BCS

⇢ **FEED MANAGEMENT**

BCS is a very useful tool for feeding a herd when times are hard. Cows with a score higher than 3.5 can be put out to graze on the poorest plots to allow thin cows (BCS < 2) to benefit from the best plots. This way, all breeders will reach the optimum score of 3 at breeding time.

⇢ **SLAUGHTER MANAGEMENT**

Quality, tasty meat can only be produced when there is intramuscular fat (marbled). This fat is only deposited after subcutaneous fat. BCS can be used to monitor livestock and decide on the optimum time for slaughter.

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PROVINCE SUD

EXTRACT OF THE POS

5.1.1

Operators shall practise methods of animal management that reduce stress, promote animal health and welfare, prevent disease and parasitism, and avoid the use of chemical allopathic veterinary drugs.

EXTRACT OF THE POS

5.1.2

Animals shall be kept in accordance with good animal husbandry practices, with access to sufficient fresh air and enough clean water and nutritious feed to satisfy their needs. Animals shall have access to protection from sunlight, excessive noise, heat, rain, mud and wind to reduce stress and ensure their well-being.

EXTRACT OF THE POS

5.1.3

If animals are housed they shall have:

- Sufficient space to stand naturally, lie down easily, turn around, groom themselves and assume all natural postures and movements, such as stretching or wing flapping;
- Adequate fresh, natural bedding materials for animals that require bedding, and pens that are kept clean;
- Enclosures that are constructed so as to ensure adequate insulation, heating, cooling and ventilation, and that enable dust levels, temperature, relative humidity and gas concentrations to be kept within levels that are not harmful to livestock;
- Capacity to maintain social structures, e.g. by ensuring that herd animals are not kept in isolation from other animals of the same species;
- Enclosures, and any associated production equipment, that are constructed of materials that do not harm human or animal health.

INTERPRETATION OF THE POS

The layout of the buildings is one of the elements that has the most influence on animal welfare. Which is why this rule includes several specific points to be respected.

Designed poultry housing

5.1.4

Poultry, rabbits and pigs shall not be kept in cages.

5.1.5

Landless animal husbandry systems are prohibited and all animals shall have access to pasture or an open-air exercise area or run, whenever the physiological condition of the animal, the weather and the state of the ground permit. Animals may be fed with harvested fresh fodder where this is a more sustainable way to use land resources than grazing.

5.1.6

The number of animals carried in an area and the flock/herd size must be limited to enable them to freely exhibit their natural behaviour and to ensure that there is no damage to soil and water resources. For pigs – housing areas for pigs over 40 kg shall be a minimum area of 1.1 m2 per animal, for breeding pigs 3.0 m2 per animal, and for piglets 0.6 m2. For poultry – the housing area for poultry older than 28 days shall be larger than 0.1 m2 per bird. The stocking density of livestock kept on pasture, grassland, or other natural or semi-natural habitats, must be low enough to prevent degradation of the soil and over-grazing of vegetation.

5.1.7

Animals must be well treated and free from pain, injury or disease. Animals shall be inspected regularly and any apparent ill-health or injury shall be quickly treated. Animals shall be protected from predation by wild, feral and domestic animals such as dogs. Tethering may be practised, provided that it does not affect the well-being of the animal and sufficient food and water are available. The method of tethering shall enable the animal to move freely within the grazing area without getting entangled or choked. The tethering shall not cause wounds or other physical harm to animals.

5.1.8

Waterways and water catchment areas shall be protected from damage by animals, e.g. pig rooting and pollution from animal effluent and associated waste.

5.1.9

In the case of laying hens, when natural day length is prolonged by artificial light, the total length of the lighted period shall be no more than 16 hours a day.

How to define adequate livestock density?

In practice, livestock densities that allow for the welfare of animals may vary from one area to another, but the following table lists the recommended densities for the main species.

Considering the extensive practices of Pacific livestock farmers, it was decided not to define housing densities for ruminants or range densities for all types of livestock. If they are housed, the following references set maximum densities.

Table 2:
Recommended density per species

Poultry	Laying hens	6 birds /sq m A minimum of 18 cm of perch per bird. In case of artificial light, the total length of the lit period shall be no more than 16 hours a day
	Broiler poultry in fixed installations	10 birds with a maximum live weight of 21 kg/sq m
	Broiler poultry in mobile facilities	16 birds with a maximum live weight of 30 kg/sq m
Pig breeding	Breeding pigs	3 sq m/animal
	Pigs > 30 kgs	1,1 sq m/animal
	Piglets < 30 kgs	0,6 sq m/animal

BEST PRACTICE

Required	Recommended	Tolerated	Prohibited
Sufficient feed.	Forage trees, fruit trees and/or shade trees. Hedges as windbreaks.	Organic fertilisers and manure may be applied as long as this is recorded in the livestock logbook, up to a maximum of 170 units of nitrogen input per hectare per year, as part of a fertiliser plan.	Synthetic herbicides and fertilisers.
Shade and wooded areas to shelter from the weather.	Protect water points and watering trough systems.		Used engine oil for treating wood.
Water in sufficient quantity and quality.			Chemical treatment of fodder or feed.
Soil under plant cover year round. Animals in good physical condition: Cattle: see Body Condition Score. Poultry: firm, red crest during laying period; beak in good condition; the breastbone cannot be felt when touched; even plumage. Sheep: See below.	Self-sufficient in fodder year-round.	Synthetic vitamins, minerals and/or synthetic supplements may be given once a year per animal, if prescribed by a vet.	Supplements containing urea. Synthetic vitamins, minerals and supplements given without a vet's prescription.
			Weaning: preventing calves from suckling their mothers is prohibited until 6 months of age.

In order to comply with 5.1.6 and 5.1.8 regarding **soil and water conservation**, but also to encourage the best possible **disease control**, the implementation of rotational grazing is widely encouraged in organic farming.

Figure 2:
Estimate these animals' body condition and weight loss

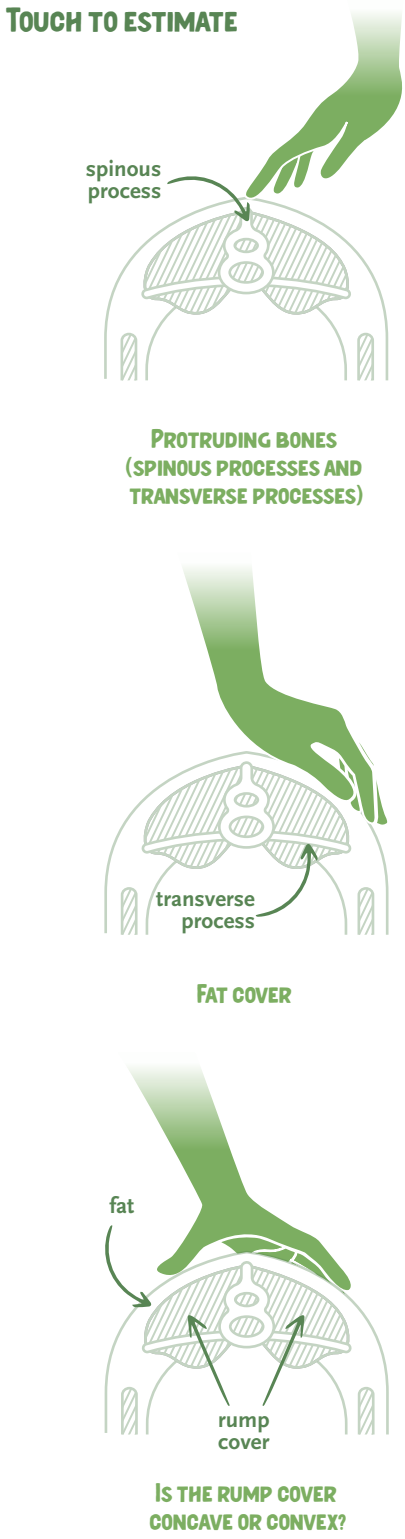
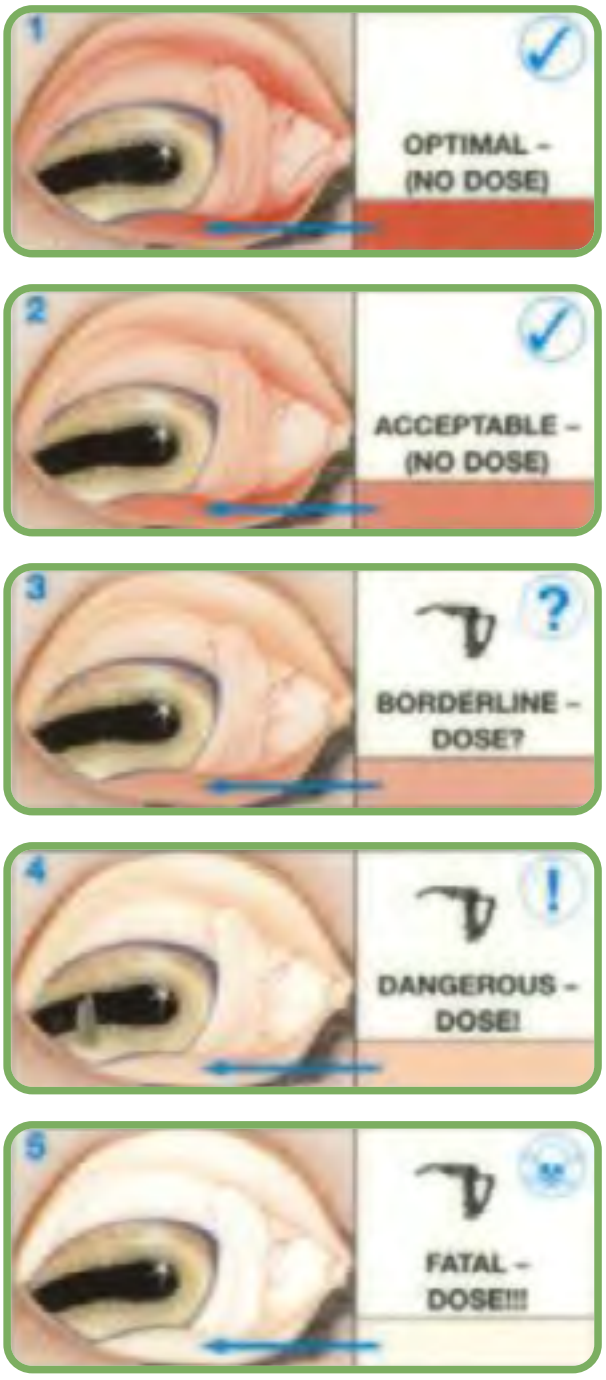


Figure 3:
The 5 scores in the FAMACHA© method for assessing anaemia.



BEST PRACTICE

Also, special attention should be paid to shading in pastures.

Cattle under shade

CONFORMITY ASSESSMENT FOR SECTIONS 5.1.1 TO 5.1.9

→ **Discuss** the following with the farmer:

- What do you put in place to promote the well-being of your animals? (The 5 freedoms listed above should be used to guide the discussion)
- How do you treat disease and parasitism? If a veterinary drug is used, make sure it is not prohibited
- How do you avoid soil and water contamination?

→ **Check** the livestock register, animal purchase invoice, feed and veterinary treatment invoices and make sure it is consistent with the farmer's statements.

→ **During site visit, pay a special attention** to the consistency of your observations with the explanations given by the farmer. In particular, make sure:

- Animals don't show signs of maltreatment (5.1.1)
- Animals are duly protected from sunlight, excessive noise, heat, rain, mud and wind (5.1.2)
- If animals are housed, their housing respects expectation listed for criterion 5.1.3
- Animals are not raised in cages (5.1.4), nor in a landless husbandry system (5.1.5)
- Animals are fed with harvested fresh fodder whenever possible (5.1.5)
- Livestock density is adequate (5.1.6)
  - See indications in the table above
  - Check if animals have enough space to express their natural behavior, if they use outdoor space
- Animals are not subjected to painful treatment (tethering etc.) (5.1.7)
- Drinking water and feed are sufficient and clean (5.1.7)
- Water sources are clean and protected from contamination (are there barriers to protect them?) (5.1.8)

5.2
LENGTH OF CONVERSION PERIOD (ANIMAL HUSBANDRY)

+

5.3
SOURCE OR ORIGIN OF ANIMALS

INTERPRETATION OF THE POS

The establishment of organic animal husbandry requires an interim period, called the conversion period, unless the requirements, as set out in 3.1.1, are complied with for traditional systems. More specifically, evolving from a conventional animal husbandry system to an organic one requires a conversion period so that animals have enough time to adapt their behaviour, immunity and metabolic functions.

As the topics covered in the parts 5.2 and 5.3 are worth analysing together, a unique guidance for criteria 5.2.1, 5.2.2, 5.3.1 and 5.3.2 is proposed below.

EXTRACT OF THE POS

5.2.1

Livestock and their products can hold no greater status (whether in conversion or organic) than is currently held by the production unit itself. Where a production unit is converted, the rules as outlined in 3.1 and 4.2 must be complied with.

EXTRACT OF THE POS

5.2.2

Where existing animals are converted to organic status on an organic property they shall undergo a one-time minimum conversion period according to the following schedule:

- **For animals for milk production – 90 days ;**
- **For poultry for egg production – 42 days.**

Note that except for the above situation, only conventionally raised animals, as specified in 5.3.1, can be brought in and that any other livestock cannot be converted to organic status even after the above conversion periods.

Diagram:
Animals for which conversion is possible after the maximum ages in 5.3.1 below.
Note that although the milk and eggs are organic, the cow and chicken are not.

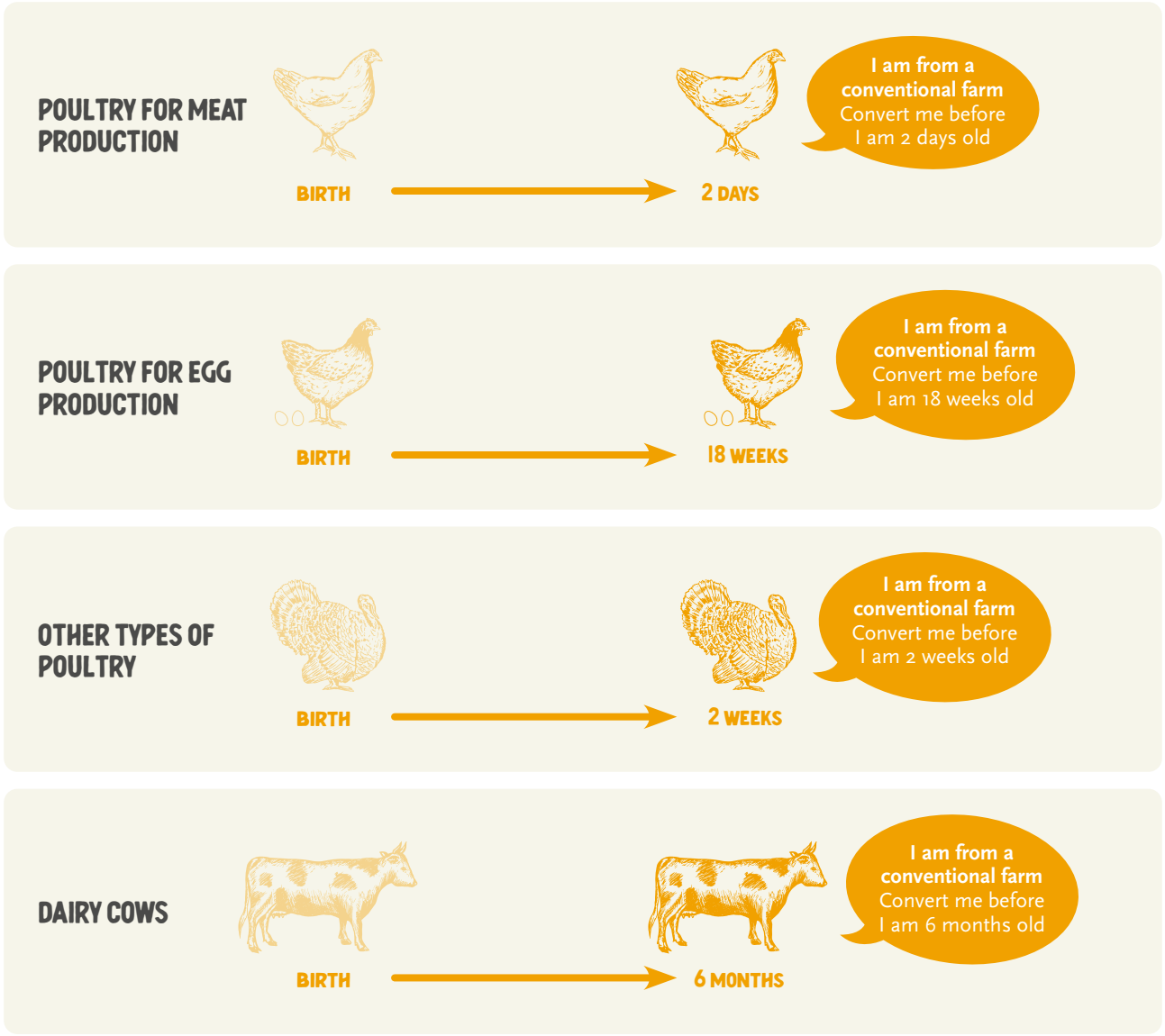
EXTRACT OF THE POS

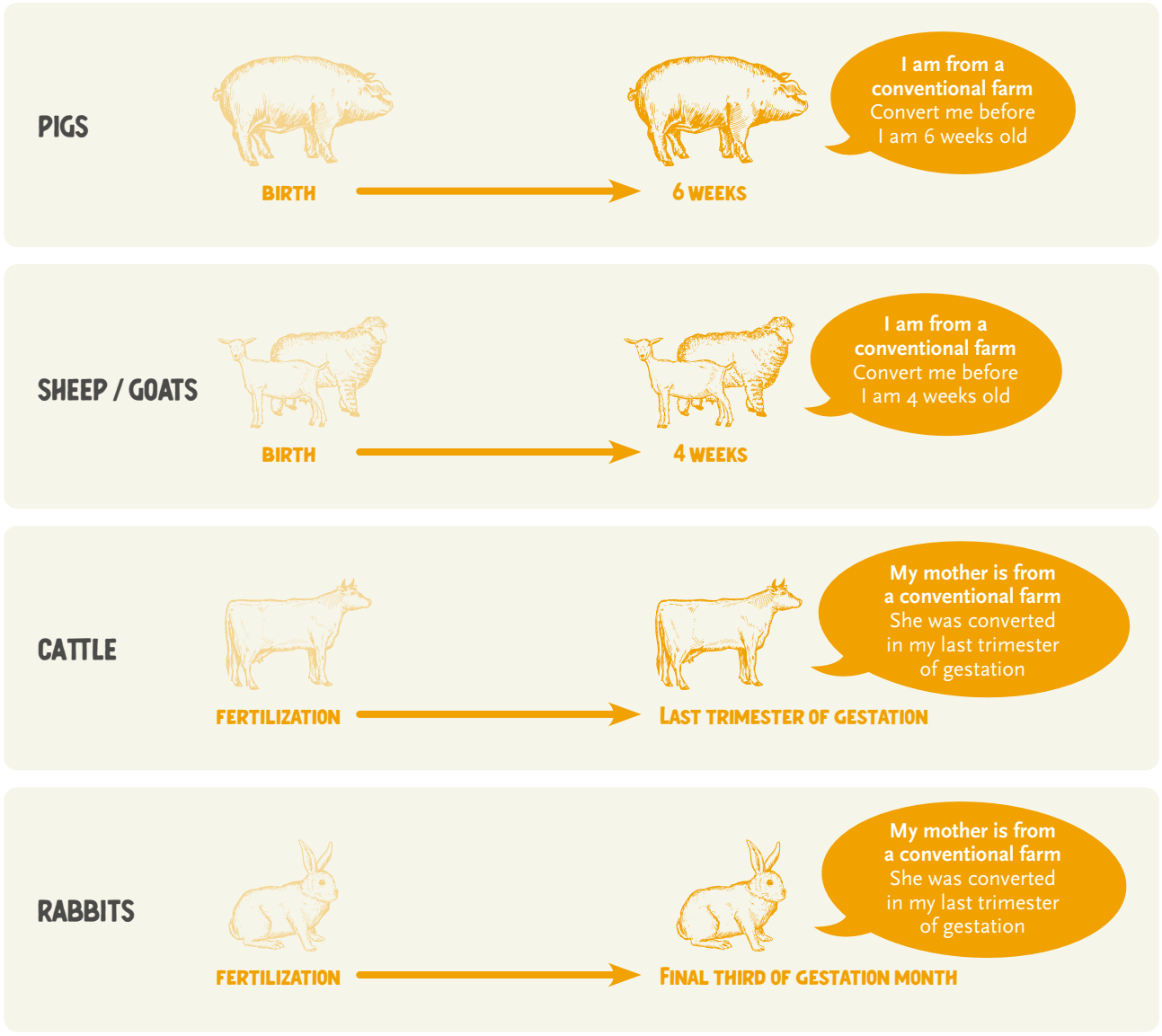
5.3.1

Animals shall be raised organically from birth. However, if such animals are not available, conventional animals may be brought in before they reach the following maximum ages:

- **2-day-old chickens for meat production;**
- **18-week-old hens for egg production;**
- **2 weeks for any other poultry;**
- **Piglets up to 6 weeks and after weaning;**
- **Dairy calves, deer, sheep and goats – animals up to 4 weeks old that have received colostrum and have been fed a diet consisting mainly of full milk.**

Diagram:
Maximum ages for introducing animals from conventional into organic farms.





EXTRACT OF THE POS

5.3.2

Breeding stock may be brought in from conventional farms only to a yearly maximum of 10% unless the following occur :

- **Unforeseen severe natural or man-made events, e.g. droughts, cyclones;**
- **Considerable enlargement of the farm;**
- **Establishment of a new type of animal production on the farm;**
- **Holdings have less than 10 animals.**

Animals brought in from non-organic sources, and their products, may be converted to organic status only within the minimum time frames set out in 5.3.1.

WHAT IS THE MAXIMUM AGE FOR INTRODUCING A CONVENTIONAL ANIMAL AND WHAT ARE THE CONVERSION RULES ?

The start of the conversion period shall be calculated either from the date of application to the certification body or from the time that organic management started and that the last use of non-permitted substances occurred.

The diagrams above define, for different types of breeding:

- ➜ The maximum age allowed to introduce a conventional animal (middle column)
- ➜ And the rules for conversion, such as minimum duration and cases not allowed (right column)

CONFORMITY ASSESSMENT FOR SECTIONS 5.2.1, 5.2.2, 5.3.1 AND 5.3.2

- ➜ **Discuss** and **observe**:
  - Are the animals born on the farm?
  - If not, where do they come from and at what age are they introduced?
  - In case of introduction of conventional livestock, is there any monitoring of the conversion time?
- ➜ **Consult** livestock register and purchase invoices.

REFERENCE TO A GUIDELINE

Guideline n° POS4/2013

Conversion Period for meat production & breeding stock.

With animals brought into an organic system for the last 3rd of gestation the offspring can be organic but the breeding stock cannot be converted and cannot be sold as organic either for breeding or meat.

Effective date: 25 October 2013

5.4 BREEDS AND BREEDING

INTERPRETATION OF THE POS

Pacific livestock farmers traditionally selected livestock adapted to local conditions and traditional management systems. This resulted in a great diversity of breeds (e.g. pig breeds) and aligns well with organic livestock breeding principles. A single analysis of criteria 5.4.1 to 5.4.4 is provided below.

EXTRACT OF THE POS

5.4.1

Breeding systems shall be based on breeds that can breed naturally without human involvement.

EXTRACT OF THE POS

5.4.2

Artificial insemination is permitted.

In order to ensure genetic renewal in our island contexts, animals resulting from artificial insemination with hormonal induction can be considered compliant to the POS if they are reared under conditions that respect all the requirements of the POS.

EXTRACT OF THE POS

5.4.3

Embryo transfer techniques and cloning are prohibited.

EXTRACT OF THE POS

5.4.4

The use of hormones to induce ovulation and birth is prohibited.

FUTURE POS AMENDMENT NOTE

FUTURE POS AMENDMENT NOTE

During the workshops to draft this handbook, there has been a proposal to amend the POS to allow the use of hormones in conjunction with artificial insemination in specific circumstances. As this proposal is widely supported, it has been pre-emptively included in the handbook, which means the guidelines are more permissive than the POS.

In order to ensure genetic diversity in our island contexts, it is permitted, with the with authorisation from the PGS, to artificiallyin-seminate cows treated with hormone induction to produce breeding stock.

- ➜ The offspring of cows that have been artificially inseminated with hormone induction can be slaughtered as organic product and may be converted into breeding stock for organic farming.
- ➜ This means animals (cows and calves) that have undergone hormonal induction and artificial insemination are downgraded.
- ➜ Embryo transfer is prohibited.

REQUIRED	RECOMMENDED	TOLERATED WITH AN EXEMPTION	PROHIBITED
Suitable breeds.	Natural mounting.	Artificial insemination with hormonal induction: ➜ the mother cows are permanently downgraded. ➜ AI offspring may be slaughtered as organic.	Embryo transfer.

CONFORMITY ASSESSMENT FOR SECTIONS 5.4.1 TO 5.4.4

- ➜ **Discuss:**
  - Are the breeds local and/or adapted to local conditions?
  - Are the breeding methods justified according to the local breeding model?
  - Are artificial inseminations used?
  - Are embryo transfer or hormonal treatment used? Are they part of a husbandry management plan?
  - How often do they occur? Do alternatives exist?
- ➜ **Check** during field visit, if what you observe matches the farmer's statements.
- ➜ **Consult** breeding logbooks or any other follow-up tool available.

5.5
SURGICAL TREATMENT

INTERPRETATION OF THE POS

Traditionally, in the Pacific, livestock were treated with great care because of their relative rarity, and cultural/intrinsic values. This aligns well with organic farming principles, which requires to respect the welfare of animals and encourage the selection of species and breeds that do not require any sort of mutilation.

EXTRACT OF THE POS

5.5.1

The use of routine surgical treatment for animals is prohibited and may only be used for reasons of safety, to ease suffering, and to sustain the health and welfare of the animal. In such situations, the following treatments are permitted:

- **Branding, earmarking or tagging**
- **Putting rings in pigs' noses**
- **Castration**
- **De-horning and de-tusking (only of young animals less than 6-months old)**

The only surgical treatments tolerated are:

➜ Castration,

➜ Dehorning,

➜ Branding and nose ringing for pigs.

If the animal is over 6 months-old, surgical treatments must be carried out under anaesthesia.

Trimming primary flight feathers (remiges) of poultry is tolerated to ensure the safety of the animals, but clipping wings is prohibited.

Video support:
How to trim the primary flight feathers of poultry.

Video

Conformity assessment for section 5.5.1

→ **Discuss**:

- What surgical treatments are carried out on the animals? At what age are they performed?
- How do you justify them?
  - Are they necessary for health or safety reasons?
  - Is it possible to manage these health, safety or traceability issues without performing mutilations?
- Are some of them performed under anaesthesia? If yes, how do you decide to use it or not?

→ **Consult** veterinary purchase invoices and animal husbandry records.

5.6 ANIMAL NUTRITION

EXTRACT OF THE POS

5.6.1

Animals shall be fed a balanced diet that provides all of their nutritional needs, with all ruminants having daily access to roughage. Feed is to be made up of 100% organic feedstuffs. Where organic feed of sufficient quantity or quality is not available, the daily maximum percentage of non-organic feed shall be 10% for ruminants and 15% for non-ruminants based on annual dry matter consumed.

INTERPRETATION OF THE POS

Island context requires farmers to import certified organic feed in order to comply with standard 5.6.1. It has 3 negative consequences:

→ Organic monogastric farms in the Pacific have a very high carbon footprint

→ The imported feed is very expensive for certified farmers

→ The dependence on imported feed is a major risk for farmers in case of logistical problems, availability or sudden rise in prices.

In order to reduce the dependency of organic livestock farms on these imported feeds, some non-organic products feedstuffs are permitted in the dry matter consumed annually by the certified animals. However, all feed must be GMO-free.

Table 4:
Animal feed in organic agriculture

Animal feed tolerated and included in the share of organic feed	Animal feed tolerated and included in the share of non-organic feed (10% for ruminants, 15% for non-ruminants)	Animal feed not permitted in organic farming
→ Plant waste (certified organic or not). → Wild harvested products (certified organic or not). For monogastrics: → By-products of local primary processing industries without additive. → Fish waste from fishing. → Fish meal from fisheries. → Terrestrial invertebrates exclusively fed with plant waste (certified or not), provided the country's regulations allow it.	→ By-products of local secondary industries with additive.	→ Animal meal for herbivores. → Insects fed with animal products (including unsorted waste) or sewage sludge. → For ruminants, farm animal by-products (e.g. abattoir waste); → Slaughter products of the same species; → All types of excrement, including droppings or other manure; → Feed subjected to solvent extraction (e.g. hexane) or the addition of other chemical agents; → Synthetic amino acids and amino-acid isolates; → Urea and other synthetic nitrogen compounds; → Synthetic growth promoters or stimulants; → Synthetic appetisers; → Preservatives, except when used as a processing aid; → Artificial colouring agents.

Conformity assessment for section 5.6.1

→ **Discuss**:
- Do the animals' nutritional needs seem to be met?
- What percentage of the animal feed is local?
- Is the type of feed viable and profitable for the farmer?
- Are there local resources nearby that could be used?
- Does the amount of feed purchased (or recovered) seem consistent with the size of the herd?

→ **Observe**, during field visit, if observations match the farmers statements. In particular, pay attention to any sign of malnutrition on the animals: poor body condition, aggressiveness, etc.

→ **Consult** documents:
- Purchase invoices and register.
- For ruminants: check the tools used by the farmer to assess whether the pasture provides enough food for the herd.

EXTRACT OF THE POS

5.6.2

Over 50% of feed shall come from the farm itself or be produced in co-operation with other organic farms. The use of appropriate by- products from the organic food processing industry is encouraged.

5.6.3

For the calculation of feeding allowances only, feed produced on the farm unit during the first year of organic management may be classed as organic. This refers only to feed for animals that are being produced within the farm unit. Such feed may not be sold or otherwise marketed as organic.

5.6.4

The following substances are prohibited from use as feed:

- **For ruminants, farm animal by-products (e.g. abattoir waste);**
- **Slaughter products of the same species;**
- **All types of excrement, including droppings or other manure;**
- **Feed subjected to solvent extraction (e.g. hexane) or the addition of other chemical agents;**
- **Synthetic amino acids and amino-acid isolates;**
- **Urea and other synthetic nitrogen compounds;**
- **Synthetic growth promoters or stimulants;**
- **Synthetic appetisers;**
- **Preservatives, except when used as a processing aid;**
- **Artificial colouring agents.**

5.6.5

Animals may be fed vitamins, trace elements and supplements from natural sources. Synthetic vitamins, minerals and supplements may be used where natural sources are of insufficient quantity or quality; this use will be assessed on a case by case basis.

5.6.6

Only the following feed preservatives can be used:

a. **Bacteria, fungi and enzymes (including effective microorganisms);**
b. **Food industry by-products (e.g. molasses);**
c. **Plant-based products.**

5.6.7

Young mammalian livestock shall receive colostrum for a minimum of 3 days after birth. They shall receive organic natural milk from their own species until they reach the weight at which they should normally be weaned from their mothers. Exceptions can be made in emergency cases only, and only in agreement with the certifier.

Guideline n° POS2/2013

Animal Feed

A DEROGATION with regard to 5.6.2 is provided for poultry producers:

"If over 50% of feed is not available from the farm itself or cannot be produced in cooperation with other farms, organic feed can be bought in."

Effective date: 25 October 2013

5.7
DISEASE PREVENTION AND VETERINARY MEDICINE

EXTRACT OF THE POS

5.7.1

The operator shall take all practical measures to ensure the health and well-being of animals through using preventive animal husbandry practices. These include:

- Selection of appropriate breeds or strains of animals;
- Adoption of husbandry practices appropriate to the requirements of each species, such as regular exercise and access to pasture and/or open-air runs, to encourage the natural immunological defences of the animal to stimulate natural immunity and tolerance to diseases;
- Provision of good quality organic feed;
- Appropriate stocking densities;
- Grazing rotation and management.

EXTRACT OF THE POS

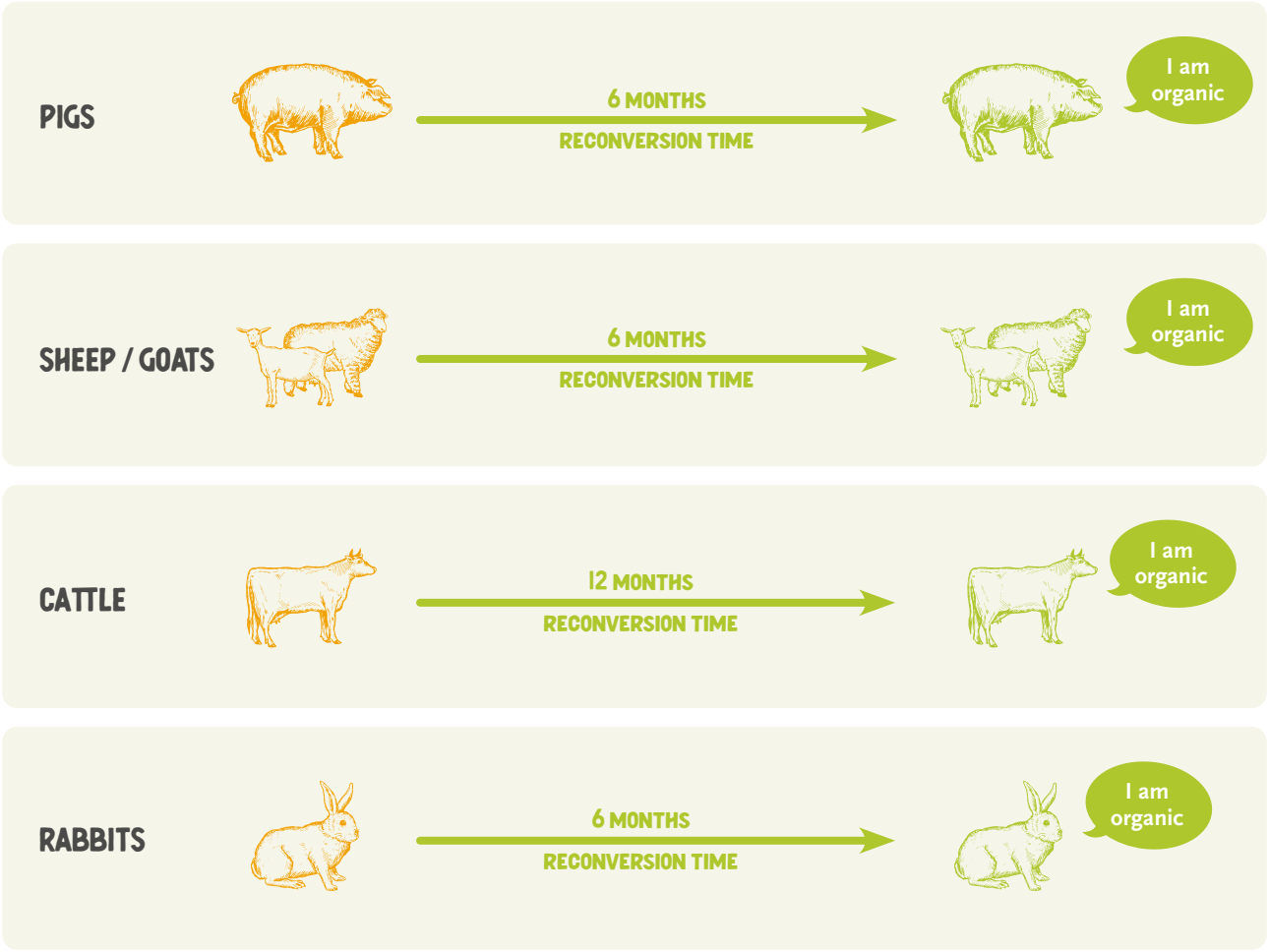
5.7.2

If an animal becomes sick or injured despite preventive measures, it shall be treated promptly. The initial use of natural, herbal or homeopathic products or practices is recommended in preference to the use of chemically synthesised veterinary products. Producers shall not withhold medication where it will result in unnecessary suffering for livestock, even if the use of such medication will cause the animal to lose its organic status. An operator may use synthetic veterinary drugs or antibiotics only if:

a. Preventive and alternative practices are unlikely to be effective in treating sickness or injury;
b. The drugs are used under the supervision of a veterinarian or other suitably qualified supervisor;
c. Withholding periods are not less than double those required by national legislation or where this is not available – as established by other neighbouring countries legislation, e.g. Australia, New Zealand, or a minimum of 48 hours, whichever is longer.

All treatments with synthetic veterinary drugs shall be documented.

Diagram:
Animals for which conversion is authorised and the required duration if an exceptional event occurs (5.3.2) or if authorised veterinary treatment is exceeded



Animals not featured in these diagrams cannot be converted and are permanently downgraded.

EXTRACT OF THE POS

5.7.3

The use of synthetic growth promotants or suppressants is prohibited.

EXTRACT OF THE POS

5.7.4

Vaccinations are permitted in cases when:

- **An endemic disease is known, or expected, to be a problem in the region of the farm and where this disease cannot be controlled by other management techniques; or**
- **A vaccination is legally required; and**
- **The vaccine is not genetically engineered.**

Recommended	Tolerated	Prohibited
Natural treatments	Vaccines if endemic disease or legally required	Vaccines either genetically engineered OR not legally required OR disease not recognised as concerning
Prophylaxis	< or = 3 allopathic treatments	> 3 allopathic treatments

Case study

Adapted breeds:

In New Caledonia, as in many Pacific islands, the cattle tick was introduced by the American army during the Second World War. To deal with this problem, New Caledonian livestock farms got into the habit of "bathing" their animals at least once a month with tickicide, distributed free of charge by the Chamber of Agriculture. After more than 50 years, ticks have become resistant to all the products used to treat them.

Farmers and agricultural technicians have therefore had to turn to other methods of tick management, known as agronomic control. The first pillar of this method is to crossbreed herds with tropicalised tick-resistant breeds: Brahman and Senepol in particular. Thanks to this practice, tick populations have fallen drastically and many farms can now do without "bathing".

Interpretation of the POS

With the exception of vaccinations, treatments for parasites and compulsory eradication schemes where an animal or group of animals receive:

- More than three courses of treatments with chemically synthesised allopathic veterinary medicinal products
- Or antibiotics within 12 months,
- Or more than one course of treatment if their productive lifecycle is less than one year,

The livestock concerned, or produce derived from them, may not be sold as organic products, and the livestock shall undergo the conversion periods laid down in the criteria 5.2 & 5.3.

Table:
Examples of products that do or do not count as allopathic treatments

Product	Authorised	Counts as a treatment
Vaccine	✔	✘
Immunological medicines (except vaccines)	✔	✔
Amino acids	✘ unless prescribed for curative purposes	✔
Aspirin	✔	✔
Vitamins (synthetic and not identical to natural vitamins)	✔	✔
Natural or synthetic vitamins identical to natural vitamins	✔	✘
Topical antiseptics	✔	✘ if marketing approved, no withdrawal period and no antibiotics
Trace elements (e.g. selenium)	✔	✘ if authorised in organic production as per Article 24 of Regulation (EU) 2018/848
Antibiotics	✘ unless prescribed by a vet	✔
Internal antiparasitic	✔	✘
Topical antiparasitic	✔	✘

NB:

Any antiparasitics, vaccines or treatments prescribed under compulsory eradication plans do not count towards the maximum number of treatments.

Table:
Number of chemically synthesised allopathic treatments allowed without mandatory conversion period

Animals with a life cycle of less than 1 year	1 single treatment during the life cycle
Animals with a life cycle of more than 1 year	3 treatments per 12-month period

If the number of authorised treatments is exceeded, apply the conversion periods in the diagram at 5.7.2.

Conformity assessment for section 5.7

→ **Discuss**:

- What treatments have been given this year?
- Are the animals identified?
- Have withholding periods been respected?
- Is it possible to improve the farmer's prophylaxis methods?

→ **Observe**, during the field visit, if the observations match the farmer's statements (traces of past treatments, stored products, markings on animals).

→ **Consult** invoices for veterinary products and livestock register.

Reference to a guideline

Guideline n° POS5/2013

Worm Treatments.

The POS is to be applied and in the first instance it is recommended to utilise anthelmintic plants such as papaya seeds for parasite prevention. If such practices are unsuccessful in the case of parasites treatment for lambs the EU COMMISSION REGULATION (EC) No 889/2008 Article 24 #4 with regard to parasite treatments will be accepted as the Guideline for implementation of the POS.

Article 24 #4. States: "With the exception of vaccinations, treatments for parasites and compulsory eradication schemes where an animal or group of animals receive more than three courses of treatments with chemically-synthesised allopathic veterinary medicinal products or antibiotics within 12 months, or more than one course of treatment if their productive lifecycle is less than one year, the livestock concerned, or produce derived from them, may not be sold as organic products, and the livestock shall undergo the conversion periods laid down in" the POS.

Effective date: 25 October 2013

5.8 TRANSPORT AND SLAUGHTER

Extract of the POS

5.8.1

Animals shall be handled calmly and gently during transport and slaughter. The transport and slaughter of animals shall comply with all relevant national and regional regulations.

Extract of the POS

5.8.2

During the process of transportation and slaughter, organic animals shall be provided with conditions that reduce, and minimise the potentially adverse effects, of:

- **Stress;**
- **Loading and unloading;**
- **Mixing different groups of animals or animals of different sex;**
- **Temperature and relative humidity; and**
- **Hunger and thirst.**

5.8.3

Animals shall not be treated with synthetic tranquilisers or stimulants prior to, or during transport. The use of electric prods and other such instruments is prohibited.

5.8.4

Slaughter shall be carried out quickly and without causing undue stress to the animal. Each animal shall be stunned before being bled to death. Slaughter by bleeding, without stunning, is not permitted unless it is done to meet cultural or religious requirements and the practice is carried out in an appropriate and calm environment.

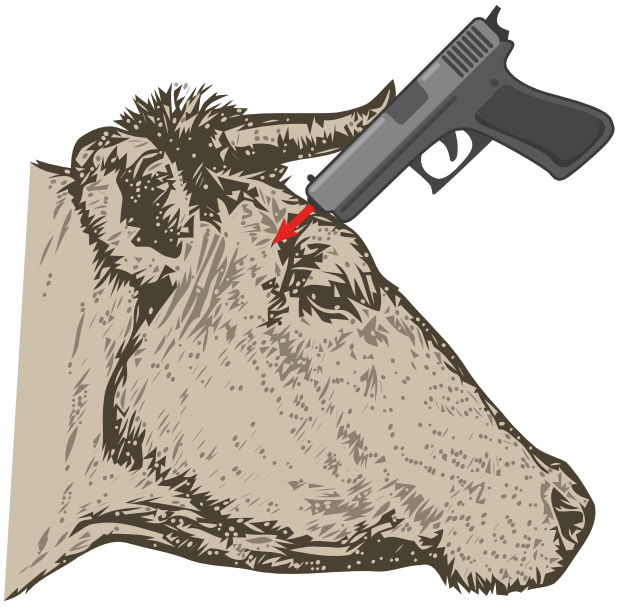
5.8.5

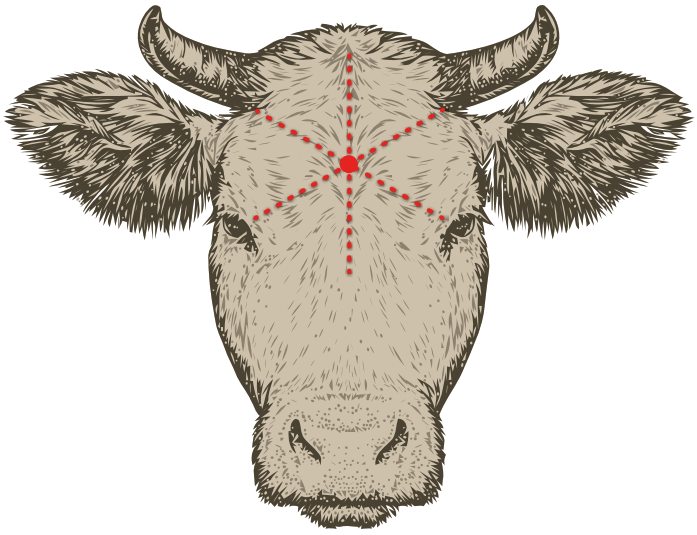
Each animal or group of animals shall be identifiable at each step in the transport and slaughter process.

5.8.6

Slaughterhouse journey times shall not exceed eight hours. Exceptions to this requirement include cases where:

1. There is no certified organic abattoir within eight hours drive;
2. There is no abattoir capable of satisfying national or importing country requirements within eight hours drive.





REFERENCE TO A GUIDELINE

Guideline n° POS2/2014

Livestock Slaughter

Given the lack of abattoir facilities and available technology in the region, and cultural practices, the use of a free bullet for purpose of stunning for cattle, sheep, pigs and deer is allowed only for PGS certified livestock where the meat is for domestic market.

Each animal shall be stunned before being bled to death. The animals must be restrained effectively but not injured or stressed. Slaughter shall be carried out quickly and without causing undue stress to the animal.

Effective date: 20 May 2014

BEST PRACTICE

5.9 FOCUS ON BEEKEEPING

DEFINITIONS	
Alveolus	Hexagonal wax structure in which honey, pollen or bee brood is stored..
Apiary	A group of several hives on the same site.
Brood	All the eggs, larvae and pupae of bees, incubated by the workers.
Colony	A bee colony is made up of the queen, the bees, the brood and the food reserves.
Honey	Product made by bees from plant nectar or honeydew.
Honey flow	Period during which foragers collect nectar or honeydew.
Hive	Man-made habitat for a colony of bees.
Swarm	Queen and group of bees that separate from the original colony to found a new colony..
Wax	Building material used by bees to store brood, honey and pollen.

In order to trace organic beehive products, beekeepers should maintain the following documents

To ensure the traceability of organic products from the hive, the following records are required:

- **The log book**: must be updated regularly and available to inspectors. It can provide the following information:
  - Location of apiaries and hives identification system,
  - Dates and conditions of queens and swarm renewal,
  - Dates of harvest,
  - Dates and conditions of feeding, losses of colonies and their causes (if known),
  - Dates and conditions of veterinary treatments, if applicable,
  - Movement of hives,
  - Dates and details of sanitary visits, if applicable...

For precise information on the hive, a nominative follow-up iscarried out or by markings on the outer cover, or additionally on the log book.

- **The beehive book**: must be updated regularly and available to inspectors. It can describe the essential operations of the harvesting activity and must allow traceability up to the final product:
  - Date and quantity of honey harvested by apiary,
  - Date and quantities of other hive products harvested,
  - Bottling, cleaning and total production of capping wax per year,
  - Quantity sold.

EXTRACT OF THE POS

5.9.1

Bee colonies may be converted to organic production. Introduced bees shall come from organic production units when available or otherwise from traditional beekeeping. The conversion period for a colony is at least one year.

This criterion only applies to colonies in conversion. The guide below explains step by step how to interpret the standard in this case.

Parallel production and split production are forbidden for beekeeping

- **Parallel** = production of the same agricultural product in conventional and organic farming - is forbidden by organic standards on beekeeping. This means a beekeeper cannot be allowed to convert to organic agriculture hive by hive.
- **Split** = the different products of the hive must have the same organic certification status.

How to manage the conversion?

If converting, the whole operation must be converted at once: it can't be a staged process.

Conversion period start date and rules

In the case of entry into the certification process, the conversion period begins with the first audit (POS3/2013).

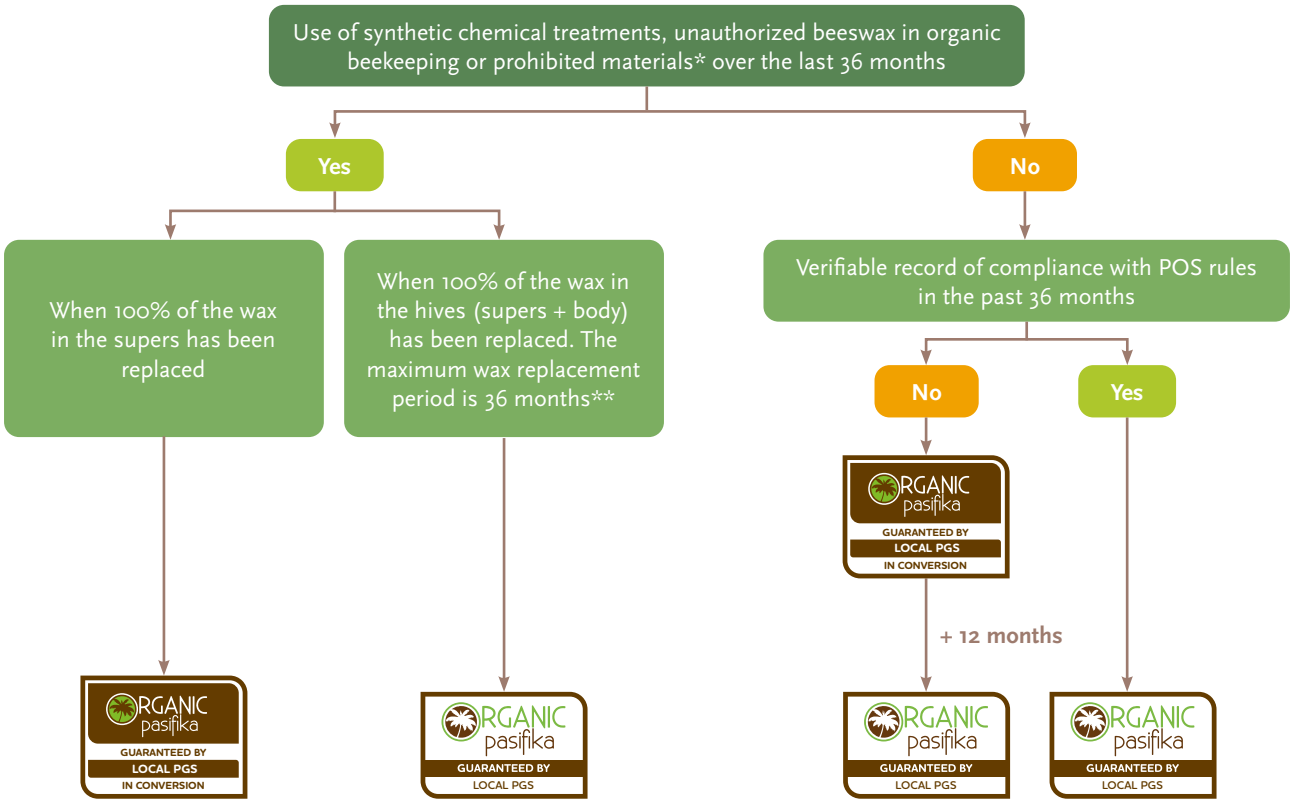
The conversion period can be applied retroactively to earlier practices if the beekeeper can prove that all organic practices have been followed and are well documented.

BEST PRACTICE

The beekeeper is required to provide sufficient information for the inspection body to approve a waiver. Examples of documents: beehives registers, a breeding book, a certificate of honour.

Use of Labelling

Once a starting date for conversion period has been defined, use the table below as a guidance for understanding conversions rules and how to use labelling.



** List of prohibited materials is available in point 5.9.6.*

*** If after 36 months, all of the beeswax has not been changed, the certification body will investigate the reasons for this and assess the risk to the biological integrity of the marketed products and the welfare of the bees.*

Introduction of bees

Renewal or expansion of the apiary can be done by:

- ➜ Division of an existing colony to create a nucleous colony
- ➜ Introduction of organic bees
- ➜ Introduction of non-organic bees or wild queens placed in hives with comb or wax foundation from organic production units

Conformity assessment for section 5.9.1

- ➜ Make sure there is no parallel or split production (see 5.9.1 above).
- ➜ Determine the conversion start date:
  - By checking documents that can be provided by the beekeeper,
  - If no such document exists or if it is not considered sufficiently credible, consider the date of the first audit as the start date.
- ➜ Determine the situation of the beekeeper in relation to the "Use of labelling" table:
  - If the documents do not mention any use of a forbidden input (wax, material, veterinary product) and there is no observation or discussion to the contrary, refer to the time elapsed since the start date (as recorded in the log book) to determine which label can be used by the beekeeper,
  - Check the traceability system to assess the reliability of wax change (when, how).

EXTRACT OF THE POS

5.9.2

If the wax is contaminated with pesticides, it shall be replaced with organic wax at the beginning of the conversion period.

INTERPRETATION OF THE POS

This criterion applies to colonies in conversion, but it useful for beekeepers to know what kind of wax can be used at any time. The guide below explains the type of wax that can be used.

REFERENCE TO A GUIDELINE

Guideline n° POS3/2013

Conversion Period for Beehives

Conversion period commences at the first audit and means the period of continuous organic management from the first audit. Wax can be replaced after the first audit during the conversion period.

Effective date: 25 October 2013

WAX FOR USE IN ORGANIC BEEKEEPING

The type of wax allowed depends on its origin. The following table summarises the different cases and specifies in each case whether the use is approved, allowed under specific conditions or prohibited:

		ORIGIN OF THE WAX	
		FARM WITH NO APIARIES IN AN ENVIRONMENT AT RISK	FARM WITH ONE OR MORE APIARIES IN AN ENVIRONMENT AT RISK
WAX TYPE	Wax from free frames (= the bees build them themselves)	Approved	Approved
	Organic or in-conversion capping wax	Approved	Approved
	Wax from the melting of organic or in-conversion frames	Approved*	Allowed with multi-residue analysis
	Conventional wax	Allowed with multi-residue analysis	
	Imported wax	Prohibited	
	Wax from the melting of conventional frames		

Multi-residue analysis

Wax analysis must follow the protocol established in the annex of this guide and the nature of the analysis must be related to the risk(s) identified. The residue tolerance level applied is 0.05 mg/kg except for active substances with Maximum Residue Limits (MRL) set at a lower level.

Wax replacement

If the beekeeper has used a synthetic chemical treatment, or a prohibited material or wax that is not permitted in organic beekeeping (see table above) at any point during the last three years, wax must be replaced with wax usable for organic beekeeping.

Waxes are replaced as they become available. It is necessary to identify all non-organic wax frames from the beginning of the conversion. For instance, tops of bee frames can be painted or marked in order to identify what year applies to them. At the end of the conversion period, the wax can be certified, but the old frames (body and supers) dating from before the conversion period must not be used.


Tracing system for beehive frames

Conformity assessment for section 5.9.2

If wax was or is contaminated:

- ➜ Ask how contamination of frames was identified and make sure those frames have been removed from the hives.
- ➜ Ask the beekeeper how they replaced them, and where the frames came from.
- ➜ Then check the beehives and the documents.

5.9.3

The selection of the breed and type of bee to be used will take into account suitability for local conditions and prevalent diseases.

5.9.4

Hives shall be placed in organic plots and/or natural wild areas. Hives shall be placed in an area with access to sufficient sources of water, honeydew, nectar and pollen to meet all the nutritional requirements of the bees.

EXTRACT OF THE POS

5.9.5

The operator shall not place hives within reach of forage from plots or other areas where a risk of contamination with prohibited substances has been identified. If there is a potential risk within three kilometres of the apiary, the honey should be checked regularly for contamination.

INTERPRETATION OF THE POS

Apiary identification is essential to ensure traceability between hives, hive location and bee products.

The exact site where the apiary is located must be managed according to the principles of organic agriculture but does not need to be certified.

BEST PRACTICE

WHAT ARE THE IDENTIFICATION DOCUMENTS REQUIRED DURING THE INSPECTION?

- ➜ Geolocation of each apiary on a map at a suitable scale: this map should identify the foraging areas and the location of the apiaries.
- ➜ The declaration to the competent authorities if relevant.

Due to the way swarms behave and the radius that bees explore around their hive, it is important to analyse the area where the hives are located and the risks that may be associated with it. The table below lists, describes and classifies environmental risks and their management:

NATURE OF THE RISK		HIGH RISK: PROHIBITED LOCATION	MODERATE RISK: POSSIBLE LOCATION WITH HONEY ANALYSIS		LOW RISK
		AREA OR DISTANCE	AREA OR DISTANCE	ANALYSIS	AREA OR DISTANCE
NATURE DU RISQUE	**AGRICULTURAL POLLUTION** Cultivation and conventional horticulture of bee plants	More than 20% of the area within a 3km radius	Between 10 to 20% of the surface within a radius of 3km	Multi-residue	Less than 10% of the area within 3 km
	NON-AGRICULTURAL POLLUTION International Airport. International trade port. Main road serving a dense urban center. (e.g.: in N-C the 2x2 highway up to the exit Païta N, in Tahiti between Punaruu and Arue). Open dumping ground. Industrial zone.	Less than 1.5 km away	Between 1.5km and 3km distance	Hydrocarbons	More than 3 km away
	Capital cities, dense urban centers concentrating a representative part of the territory's population.			Hydrocarbons Multi-residue	

Help to calculate the area of foraging:

A 3 km radius from the apiary represents 2800 ha and includes maritime areas.

So 20% = 560 ha and 10% = 280 ha.

Google maps can be used to measure distances and areas.

Conditions for testing if a moderate level of risk is identified:

The analyses are done at the beginning of the process and again in case of change in the environment of the apiary (new risk). They are carried out according to the protocol established in the appendix of this guide and are at the beekeeper's expense.

When tested, the chemical residue content of the honey must not exceed 10% of the maximum residue limit (criterion 4.6.2). If the chemical residue content of the honey exceeds 10% of the maximum residue limit, then the location of the apiary is rejected: the products of the current beekeeping season from the affected apiaries are downgraded, the apiary is moved and has to be recertified.

Conformity assessment for section 5.9.4 and 5.9.5

→ Ask for the geolocation of each apiary on a map and make sure it allows identifying the foraging areas and the location of the apiaries.

→ Based on this map:

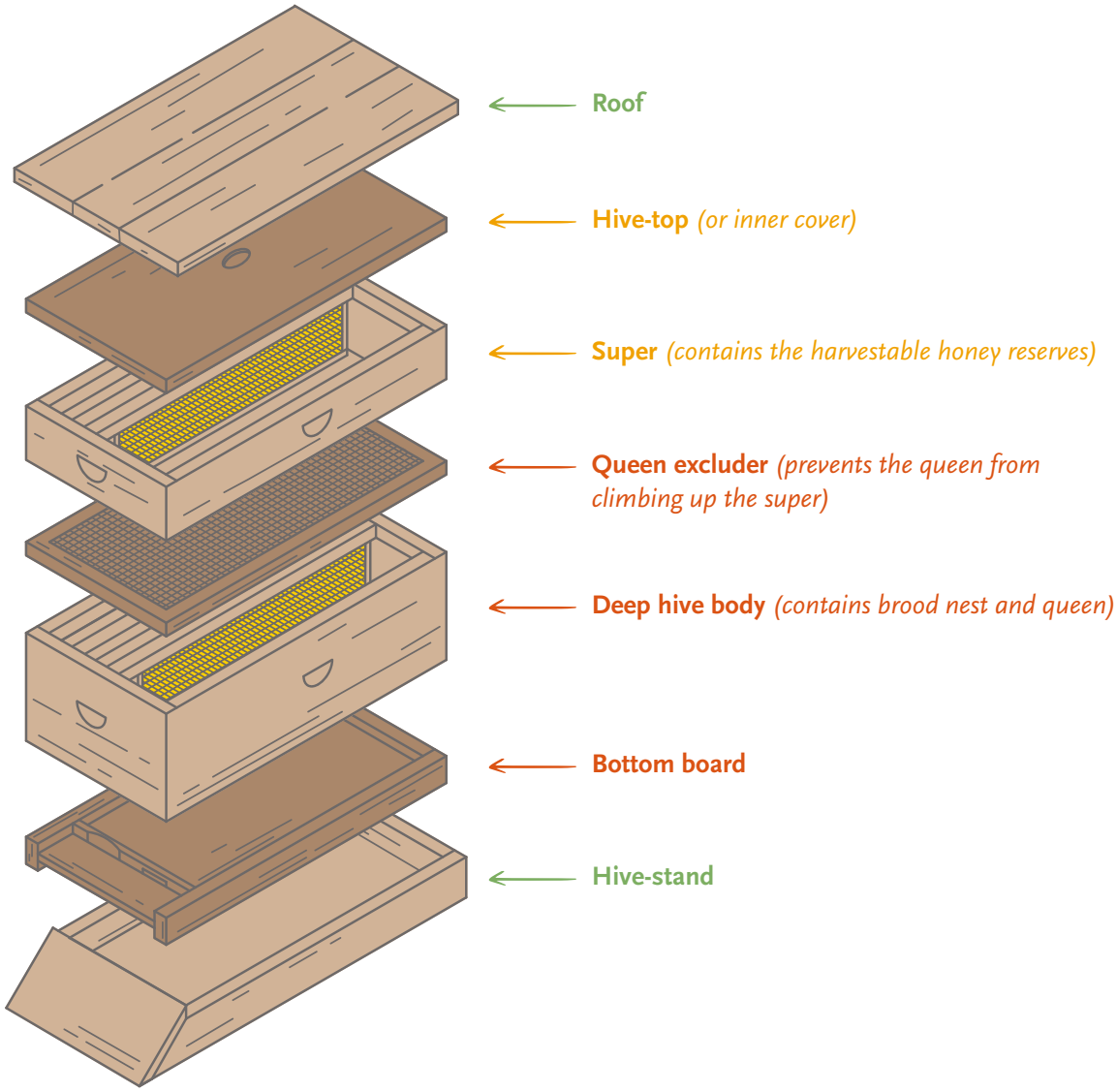
- Estimate the share of the foraging area that is at risk (refer to the agricultural and non-agricultural sources of pollution listed in the table)
- Depending on this share, check whether the risk is high, moderated, or low:
  - If high: the apiary cannot be used for organic honey production.
  - If moderated: refer to the "Conditions for testing if moderated risk is identified" and make sure it is respected.
  - If low: hives can be used for organic honey production.

EXTRACT OF THE POS

5.9.6

Hives shall be made of materials that do not present a risk of contamination to the bees or the products they generate.

Diagram:
Nomenclature of the hive elements



BEST PRACTICE

WHAT MATERIALS CAN AND CANNOT BE USED FOR THE CONSTRUCTION OF THE HIVES?

The table below lists all materials that are commonly used in hives and clarifies if they are prohibited, tolerated or recommended for organic beekeeping.

PROHIBITED	TOLERATED	RECOMMENDED
Materials agglomerated with non-natural glues and resins (e.g. plywood*, OSB, medium board, etc.). Materials containing polystyrene, polyurethane, aluminium or cement. Wax sheets composed of a mixture of wax and petroleum products (paraffin, stearin).	Food-grade plastic materials (e.g., high-density polyethylene HDPE). Plastic frames dipped in organic beeswax.	Wood for the body, the supers and the frames. Plastic may only be used for: breeding material (cups, nucs, etc.), feeders and bottom boards.

** Since some elements are not available in wood, plywood is only allowed for: the hive-top, the hive-top feeder, the bottom board and the pollen trap. Plywood is not allowed for the partition and the feeding frames.*

WHAT TREATMENTS MAY OR MAY NOT BE USED ON THESE MATERIALS?

Wood treatment products used must not present any risk of contamination for the environment or beekeeping products.

Table:
Materials treatment products allowed in organic beekeeping (non comprehensive list)

	AUTHORIZED	PROHIBITED
Inside the hives	Only natural products such as propolis, wax and vegetable oils are allowed.	The following wood treatment products: carbonyl, creosote, used sump oil, turpentine (petroleum product).
Outside the hives	Linseed oil, turpentine, lead-free paints or water-based stains.	
By hot wax dipping	Microcrystalline wax at 150°C.	

EXTRACT OF THE POS

5.9.7

At the end of the production season, hives shall be left with sufficient reserves of honey and pollen to enable the colony to survive the wet season.

CONFORMITY ASSESSMENT FOR SECTION 5.9.6

First have a close look at how beehives are built, then ask the beekeeper about the materials used for each element as well as their treatments. As far as possible, check how they can prove which treatment was applied.

EXTRACT OF THE POS

5.9.8

Supplementary feeding shall only be permitted if the survival of the colony is threatened due to adverse weather conditions. Supplementary feeding may only be given between the last honey harvest and the beginning of the next nectar and honeydew season. In this case, organic honey or organic sugar shall be used, where available. The use of sugar from conventional agriculture is only allowed in exceptional cases and only until 2013.

FUTURE POS AMENDMENT NOTE

FUTURE POS AMENDMENT NOTE

During the workshops to draft this handbook, there has been a proposal to amend the POS to extend the above derogation. As this proposal is widely supported, provided the exceptional circumstances under which supplementary feeding can be granted is reemphasised, it has been pre-emptively included in the handbook.

Supplementary feeding is forbidden and can only allowed in very specific circumstances:

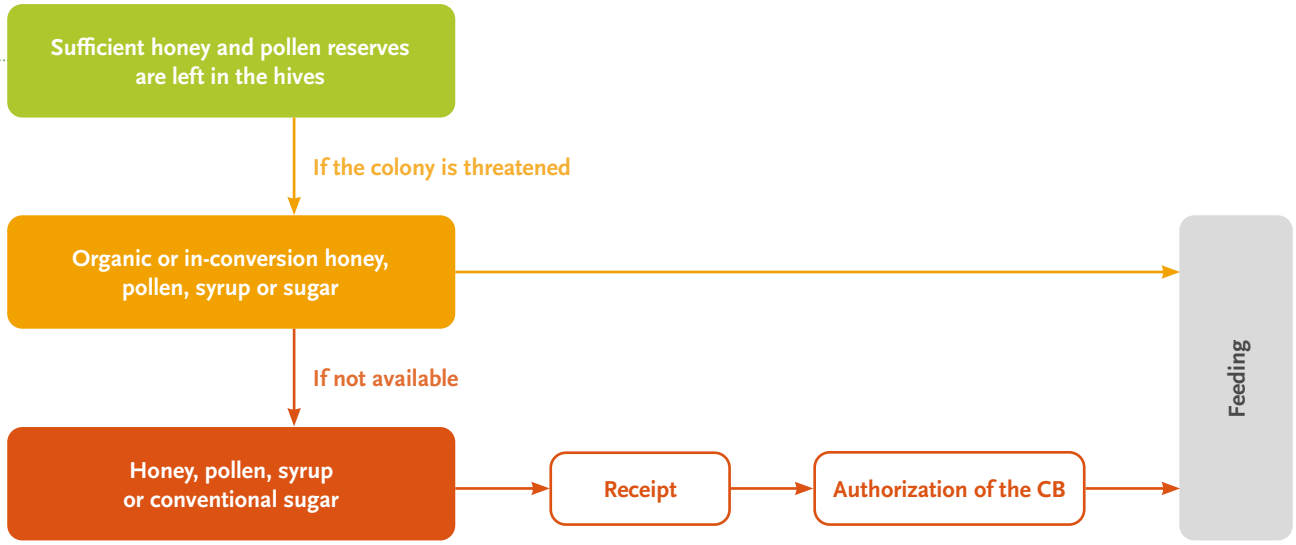
- In the case of nucleous colony to guarantee its survival and its good development.
- For queen rearing.
- In times of food shortage if the survival of the colony is threatened.

This supplementary feeding should only be given outside honey flow period and without super. In this case, organic or in-conversion honey, pollen, syrup or sugar is used.

FUTURE POS AMENDMENT NOTE

The following derogation applies until 2025: If organic or in-conversion honey, pollen, syrup or sugar are not available, then equivalent conventional products can be used subject to justification and authorization from the certification body (CB).

BEST PRACTICE



CONFORMITY ASSESSMENT FOR SECTION 5.9.8

Ask the beekeeper if supplementary feeding was given to the bees. If so, ask what kind of feeding was used and check in the books. If conventional products had to be used, make sure the beekeeper can clearly justify they had no other organic option, then ask for the corresponding receipts and authorizations of the certification body.

EXTRACT OF THE POS

5.9.9

The health and welfare of the colony is primarily ensured by maintaining strict hygiene and applying preventive management measures such as:

- **The use of adapted and robust species;**
- **Maintaining strict hygiene standards;**
- **Regular monitoring of hives and handling conditions, if any.**

BEST PRACTICE

In organic farming, disease prevention is based on breed selection, husbandry practices, feed quality, adequate density and proper housing. It is recommended to renew 3 to 5 body frames per season (2 frames per year from the brood box is best practice).

Examples of strict hygiene rules: Disinfection of tools between each apiary (with flame or bleach), maintenance of grass under the hives, protection of the hives from wind and humidity etc.

EXTRACT OF THE POS

5.9.10

If preventive measures fail, veterinary drugs may be used, provided that such use is recorded and that:

- **Preference be given to phytotherapy and homeopathy; and that**
- **When synthetic allopathic chemical drugs are used, the beekeeping product is not sold as organic;**
- **Treated hives are isolated and subject to a one-year conversion period.**

BEST PRACTICE

The use of synthetic allopathic drugs is prohibited.

If a treatment using synthetic allopathic drugs is necessary, including antibiotics, the treated colonies shall be placed in a dedicated isolation apiary during the treatment period. The affected colonies are returned to conversion for a minimum period of twelve months and all wax must be replaced with organic beeswax. The products of the affected hives are downgraded.

In this exceptional situation, the parallel production of the same agricultural product in conversion and organic is temporarily tolerated.

EXTRACT OF THE POS

5.9.11

The following inputs are permitted for pest and disease control:

- **Lactic, formic, oxalic and acetic acids;**
- **Sulfur;**
- **Natural essential oils (e.g. menthol, eucalyptol, camphor and lemongrass);**
- **Bacillus thuringiensis;**
- **Steam, direct flame and caustic soda. Sodium hypochlorite (bleach) and sodium bicarbonate (baking soda) can be used to disinfect hives, in addition to a proper cleaning treatment.**

BEST PRACTICE

Microcrystalline wax is also allowed for disinfection of equipment.

Conformity assessment for sections 5.9.9, 5.9.10 and 5.9.11

Ask the beekeeper, and then check on the documents when possible:

- ➜ Which preventive measures are put in place (breed selection, husbandry practices, feed quality, housing and density, frames renewal frequency)?
- ➜ In case of health issues, which veterinary drugs are used and how.
- ➜ If any input is also used, ask which one, why and how.

EXTRACT OF THE POS

5.9.12

Veterinary treatments that are compulsory under national or regional legislation are authorised; however, their use may affect the certification status of the animal or property.

EXTRACT OF THE POS

BEST PRACTICE

5.9.13

The destruction of bees in the comb as a method of harvesting bee products is prohibited.

The destruction of the colony for the harvest of honey is prohibited.

EXTRACT OF THE POS

INTERPRETATION OF THE POS

BEST PRACTICE

5.9.14

Trimming of queen wings is prohibited.

This kind of practice prevents the queen from flying any distance should the colony swarm.

The mutilation of bees (e.g. clipping of queens) is forbidden. If the queens are already clipped at the beginning of the conversion period, the farm can be certified as is, but the beekeeper must commit to not repeating this practice.

EXTRACT OF THE POS

5.9.15

Artificial insemination of queen bees is permitted.

EXTRACT OF THE POS

5.9.16

The use of synthetic bee repellents is prohibited during honey extraction operations.

EXTRACT OF THE POS

5.9.17

The use of smoke shall be kept to a minimum. Materials used to make smoke shall be natural or made from materials that meet the requirements of this Standard.

BEST PRACTICE

Examples of authorized materials for the smoker: pine needles, untreated dried plants, untreated wood...

Examples of prohibited materials for the smoker: treated wood, plastic-coated cardboard, painted elements, plastic...

CONFORMITY ASSESSMENT FOR SECTIONS 5.9.13, 5.9.14 AND 5.9.17

Ask the beekeeper, and then check on the documents when possible:

- → How is the honey harvested, paying special attention to destructive practices?
- → If any queen wings are ever trimmed (ask to be shown a sample of queens)
- → In which conditions, how and at what frequency is smoke used? Ask which material are used for the smoker and pay special attention to any traces of previously burned materials that would be prohibited.

CHAPTER 6

AQUACULTURE

No guidelines available for this chapter.

CHAPTER 7

PROCESSING AND HANDLING

NO ADDITIONAL GUIDELINE

REFERENCE TO A GUIDELINE

Guideline n° POS6/2013

Certification of Salt and Water

Neither water nor salt will be certifiable under the POS.

Audited salt and water can be approved as processing inputs but cannot be labelled with the Organic Pasifika Mark.

Effective date: 25 October 2013

CHAPTER 8
LABELLING

NO ADDITIONAL GUIDELINE

REFERENCE TO A GUIDELINE

Guideline n° P2/2013

Use of Organic Pasifika Mark on products containing ingredients certified to the Pacific Organic Standard

The Organic Pasifika Mark can be used on single and composite products certified to the POS in accordance with the 'Guidelines for the use of the Organic Pasifika Mark'.

In the case of products containing ingredients certified to the POS but where final product is not certified to the POS, the ingredients certified to the POS can be noted as such on the ingredients list but the Organic Pasifika Mark cannot be used on the product.

Effective date: 25 October 2013

CHAPTER 9

SOCIAL JUSTICE

INTERPRETATION OF THE POS

Context

The Pacific Islands are home to a wide range of societies and cultures from which have evolved diverse social structures and values. There are, however, some commonly held values including the importance of land. The people of the Pacific acknowledge land as their lifeblood and have a spiritual relationship with it that often includes recognition of many intangible values. The extended family and village, and the obligations and benefits that arise from these networks, are also a key feature of Pacific life. Family and community relationships are strengthened by a communal approach to work and life. Many traditions have been established to protect the interests of individuals and groups and these are incorporated in this Pacific Organic Standard with contemporary approaches to ensure that the principles of social justice and human rights are an integral part of organic agriculture and processing in the Pacific. The standard also recognises the need to establish fair and sustainable trading relationships based on trust, transparency, equity, accountability and continuity.

Definitions	
Contractor	A person or a company paid for a specific task performed, who is independent from the farm/company for which the task is undertaken. Independent means that the companies are not connected, and the contractor has other clients.
Employee	A person performing work on the farm or the company, getting paid for this work. An employee is not a contractor.
Operator	Any economic actor (farmer, processor) who takes ownership of the organic product, and will likely be the employer of employees.
Worker	Any person regularly performing work on a farm who is not the farm owner and has no control over the resources generated by their work (can be a family member or a WOOFer[1] or intern – excludes contractors). Rules applying to this group also apply to formal employees (as per definition above).

[1] *WOOFers are international volunteers who come to work on an organic farm to learn about organic farming and local culture. They usually work part-time in exchange for food and lodging.*

What criteria apply depending on the type of labour force?

According to the definition of employee and worker above, the following criteria apply:

	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	Additional Social Justice Guideline #1
The farm/operator has no workers (the farmer works alone)			X			X	X			
The farm/operator has workers (the farmer is not the only person working on the farm)	X		X			X	X		X	
The farm/operator has employees (less than 10 full time employees)	X		X	X	X	X	X	X	X	X
The farm/operator has more than 10 full time employees	X	X	X	X	X	X	X	X	X	X
The farm/operator has contractors				X	X	X	X		X	

Additional Social Justice Guidelines #2 and #3 apply to all.

EXTRACT OF THE POS

9.1

Employees and workers shall be guaranteed basic human rights and fair working conditions in accordance with national and international conventions and laws, e.g. ILO conventions and the UN Convention on the Rights of the Child.

Explanations

- **Basic human rights** include the right to freedom, to personal security and integrity, to freedom of conscience and religion, to freedom of assembly and association, and the right to privacy.
- **Working conditions** include conditions of employment (volume and duration of work, contracts...), wages, health, safety and social dialogue.
- **Fair working conditions, or decent working conditions** mean that employees and workers working conditions are in line with national legislation or the relevant industry standard. The industry standard can be a sectoral (farm workers) collective bargaining agreement.
- **Child rights:** see criteria 9.6.

If there are no national regulations, industry best practices apply.

Resources

- International Declaration of Human Rights.
- International Labour Organisation (ILO) conventions.
- United Nations (UN) Convention on the rights of the child.
- Any national regulation, depending on the local context.

Conformity assessment for section 9.1

The evaluator must have access to workers and employees to talk with them about their working conditions, making sure they are fair and that basic human rights are respected.

9.2

An operator who hires more than 10 people for full-time work shall have a documented policy covering the aspects mentioned in this section (Section 9 – Social Justice).

Definitions	
Full-time work	Full-time work means ongoing work as an employee, for a number of weekly hours as defined in the national law (the International Labour Organisation Convention #1 sets a maximum of 48 hours).
A documented policy	A documented policy is a written document which sets out how the operator will maintain compliance with the criteria listed in this section of the POS. It can be an HR manual or an HR policy, and will describe processes concerning the working environment, HR documentation, hiring processes, health and safety, etc.

A farm or operation with more than 10 full time staff is considered to be of a size which justifies a consistent level of formalisation of its human resources management.

Conformity assessment for section 9.2

- → **Discuss** with the employer about working conditions.
- → **Consult** the following documents:
  - List of employees, with start date, weekly hours
  - Policy document(s)
- → **Talk with employees**.
- → **Observe** working conditions during field visits
- → **Discuss** in private with a random sample of employees to see if documentations apply properly.

9.3

Operators shall not use forced or involuntary labour. Where this occurs, or where there is social injustice, or where production is based on the violation of basic human rights, the resulting product cannot be declared organic.

Context and definitions

Forced labour is still a reality in the 21st century, including in the Pacific region. Data is scarce but estimates for one of the countries where it has been assessed puts it at 1% of the population in Papua New Guinea [3].

Forced or involuntary labour is "work that is performed involuntarily and under the menace of a penalty. It refers to situations in which persons are coerced to work through the use of violence or intimidation, or by more subtle means such as manipulated debt, retention of identity papers or threats of denunciation to immigration authorities" (ILO definition).

Social injustice cases include any instance of non-compliance with Chapter 9 which is not resolved promptly by the operator.

Production is based on the violation of basic human rights: violation of basic human rights can be difficult to characterise, but a degree of coercion is always present. It may be suspected through informal exchanges with workers, with neighbours or the local community.

[3] *Estimated prevalence, Walk Free Foundation..*

9.4

Employees and contractors of organic operations shall have the freedom to associate, the right to organise, and the right to bargain collectively. Contracts shall be fair, open to negotiation, and honoured in good faith.

Definitions	
Freedom to associate and right to organise	Freedom to associate and right to organise refer to the ability of employees and contractors to talk to each other and decide on collective action to defend their rights, as set in national legislation.
Right to bargain collectively	Right to bargain collectively refers to the ability of employees and contractors to form a collective to negotiate as a group (usually a trade union) with the employer, with regards to health and safety, wages, etc.

Definitions	
A contract	A contract is usually a document in writing (but can also be an oral agreement, as long as both parties are very clear on what they agree on) which sets out obligations between the employee and the employer. It usually describes the duties of the employee, the wages, work hours, duration of employment the employer commits too, as well as specifications on annual leave, sickness and other leave motives available to the worker.
Being fair	Being fair means that neither employee nor employer are overly advantaged by the conditions of the contract.
Open to negotiation	Open to negotiation means that if one of the parties wants to discuss some of the conditions set out in the contract, the following conditions are met: ➜ There is a space/an avenue to have this discussion, and ➜ They are able to present their views and be listened to.
Honoured in good faith	Honoured in good faith means that both parties abide to what they have agreed to, considering errors are possible, as long as they are not intentional (in bad faith).

Freedom to associate, the right to organise and the right to bargain collectively are considered effective and adequate means for workers to negotiate work conditions with their employer. Conversely, they also provide the employer with avenues to identify issues in the workplace and discuss collectively with employees.

Conformity assessment for section 9.4

- ➜ Ask questions to employees, contractors, and the employer.
- ➜ Check contracts and payroll records.

9.5

Operators shall provide their employees and contractors equal opportunity and treatment, e.g. in relation to wages, and shall not act in a discriminatory way on the basis of factors such as gender, age, colour, ethnicity or religion.

Definitions	
Providing equal opportunity and treatment	Providing equal opportunity and treatment means that the operator shall not discriminate in their dealings with employees and contractors, but offer them the same opportunities, and treat them equitably.
Acting in a discriminatory way	Acting in a discriminatory way can include offering higher pay to men than to women for work of equal value, providing different facilities to workers based on their ethnicity (lunchroom, access to rest/break space), giving preferential access opportunities for training or overtime based on age, etc. Discrimination can also be indirect, and sometimes unintended: for instance, if opportunities for overtime are offered to workers on a day when some workers do not work for religious reasons, they will miss out on that opportunity.

9.6

Operators shall not hire child labour. Children may work on their family's farm or a neighbouring farm provided that such work is not dangerous or hazardous to their health and safety, and does not jeopardise their educational, moral, social, and physical development. Any such work shall be supervised by adults or authorised by a legal guardian.

Context

The Convention on the Rights of the Child, which has been ratified by all Pacific Island countries, defines a child as any person under the age of 18, and this is the group under the scope of this criteria. However, not all work performed by children is considered child labour, which implies work that is detrimental to the development of the child, because of risk to her health, because it takes place at time when the child should be schooled, or because the hours are long, etc. Some work performed by children can be considered as educative, helping them gain knowledge or skills that will be useful to them, so the nature of the work, the conditions in which it is performed, and the adults surrounding the child are all important criteria to take into consideration.

Additionally, each country has a set of rules under which children under 18 are allowed to work, defining the age and the nature of the work that children can perform.

The minimum legal age for employment in non-hazardous work (as defined in national law):

Table 5:
Minimum legal age for employment

Fiji	Samoa	Tonga	Cook Islands	Solomon Islands	Kiribati	N. Calédonie	French Polynesia
15	15	No limit	16	12	14	14	16

Conformity assessment for section 9.6

→ **Ask questions**:

- To the employer:
  - How do you know the age of the workers you are hiring?
  - Are there any children performing work on the farm? If yes, what is the nature of the work? What relationship do you have with these children?
- To the young workers:
  - How old are they? How old were they when they started working here?
  - What is the nature of their work? Are they enrolled in school? Are they learning anything or contributing to their family welfare through this work?
- To children of the family who work on the farm:
  - Do they ever do work that could be dangerous for their age?
  - Do they work on days when there is school?

→ **Consult** the employee register, if available.

9.7

Operators shall respect the rights of indigenous people, and shall not use or exploit land whose inhabitants or farmers have been, or are being, impoverished, dispossessed, colonised, expelled, exiled or killed, nor shall operators use land that is currently in dispute regarding legal or customary local rights to its use or ownership.

Context and definitions

The UN permanent forum on indigenous issues identifies **Indigenous people** as "the descendants of those who inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived. The new arrivals later became dominant through conquest, occupation, settlement or other means."

Indigenous people share some of the following characteristics:

- Self- identification as indigenous peoples at the individual level and accepted by the community as their member.
- Historical continuity with pre-colonial and/or pre-settler societies.
- Strong link to territories and surrounding natural resources.
- Distinct social, economic or political systems.
- Distinct language, culture and beliefs.
- Form non-dominant groups of society.
- Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities.

Conformity assessment for section 9.7

What operators shall commit to is:

- Respecting the rights of indigenous people
- Knowing the history of the land they are farming
- Seeking information on land which might be in dispute
- Not farming on land which they know or suspect to be in dispute

In the event that the operator's land is recognised as being in dispute by a local jurisdiction, its produce/product cannot be certified organic from that point, unless a local temporary agreement can be found.

9.8

All employees and their families who live on an organic property shall have access to potable water, food, housing, education, transportation and health services.

This criterion only applies in the case where employees (and their families) are living on an organic property.

Definition	
Having access	Having access means that the employees are able to use or obtain the services listed. Using the services should be free, or at an affordable cost in relation to their income; and employees and their families should be able to reach the service (such as education or health) easily.

Wherever possible, if male and female employees who are not related live on the farm, they should have access to separate accommodation and toilet facilities.

Conformity assessment for section 9.8

→ **Ask questions:**

- Are there any workers living on the property?
- If yes, how do they access potable water, food, housing, education, transportation, health services?
- Is there any service they have difficulty accessing? Does this difficulty concern everyone in the location?

→ **Check**, during field visit, if observations correspond to match these statements.

9.9

Workers shall have adequate protection from noise, dust and light. Exposure to chemicals shall be within acceptable limits in all production and processing operations.

Definitions	
Adequate protection	Adequate protection means that the protection provided will effectively mitigate the risk posed to workers by the noise, dust or light. The protection can be shading, hats, earmuffs, appropriate face masks, or any other appropriate gear or means.
Chemicals	Chemicals include all products, natural or manufactured, which are used because of their chemical action. They can be additives in the production process, products used in cleaning premises or equipment, etc. Examples of chemicals include cleaning products, such as those used for cleaning material in contact with milk or oils.
Acceptable limits	Acceptable limits mean that the workers are not harmed or placed at risk of harm by the use of the chemical, and do not suffer side effects from their prolonged contact (headaches, skin rashes, etc.). In any case, wherever possible, the employer will provide protective equipment to workers exposed to chemicals (such as gloves, goggles, etc.).

For a list of chemicals and cleaning products allowed under the POS, see Annex 1.

ADDITIONAL SOCIAL JUSTICE GUIDELINES

#1

Employee social security – operators should provide for the basic social security needs of the employees, including benefits such as parental, sickness and retirement benefits.

CONTEXT AND INTERPRETATION

Depending on the location, social security will be dealt with in different ways. In some locations, the state will organise a social safety net that employers (and employees) contribute to through payroll taxes/deductions. In this case, the employer needs to have proof that the employee is declared to the relevant system, and that payments are being made. The employee will then have legal entitlements to sickness/parental leave and benefits.

In other places, these services will be managed privately or with minimal state involvement, and the employer may contribute to specific funds on behalf of the employee, and will self-fund some employees' rights, such as sick leave and benefits, so that even if the employee is not working, they have a replacement income.

The national law will define how this is managed in each context. Where national social measures are not available, operators should make appropriate efforts to develop agreements that offer security to employees and contractors.

CONFORMITY ASSESSMENT FOR SECTION 9.8

Ask questions:

- What is the national legislation regarding social security? (info from PGS)
- How does the employer implement it?
- How do the employees access social security?

#2

Fair trade relationships – operators should aim to establish agreements between them and buyers that provide mutual benefits, including ensuring that producers receive a fair price for their products; these agreements should be long term (preferably at least three years).

CONTEXT AND EXPLANATIONS

Fair trade is a trading partnership, so its scope includes farmers, processors, buyers, and consumers. It is based on dialogue between trading partners, on transparency and respect. It is about offering better trading conditions and securing rights to contribute to sustainable development.

One of the pillars for better trading conditions is prices which reflect the real value of the work which went into making the product, based on decent living costs as well as costs of inputs, etc. It also relies on buyers giving more long term certainty to producers, by committing to buying produce for a period of time.

For instance, in Community Supported Agriculture (often called a basket scheme or box scheme in the pacific), consumers commit to a weekly/monthly volume of purchase from a farmer, for a whole year or production cycle.

Where operators buying from farmers are businesses who will process or retail the product, three years is considered a preferable option, especially for products which are harvested once a year (e.g. cocoa or coffee with one large harvest).

As a reference, a fair price is built on:

- Knowing how much time went into producing a quantity of the product
- Paying fair wages / a fair compensation for the work time spent in farming activities
- Valuing inputs
- A share of the investment costs of tools or equipment (such as beehives, hoes, netting, etc.)
- Costs of insurance, rent (if applicable), and other overheads.

#3

Community relationships – operators should actively participate in, and positively contribute towards, the society and culture of the local and wider community and families.

Examples of contributions could include:

- **Training workers in organic and social awareness**
- **Providing additional on-site services to workers, e.g. organic food**
- **Sharing profits or equity interest**
- **Supporting the organic movement and trade union movement**
- **Educating the public and providing training within the supply chain**
- **Organising farm visits and demonstrations or facilitating access to the farm by the public**
- **Supporting or being involved in research and development**
- **Supporting community cultural activities**
- **Establishing or supporting composting and recycling programmes**
- **Marketing products locally**

Additionally, other contributions could include: women's economic empowerment projects, or working to facilitate access/inclusion for those with disabilities or from historically underserved groups.

ADDITIONAL GUIDANCE

PROPOSAL TO ADD THE FOLLOWING CRITERIA

Proposed criteria on Gender equality.

9.11

Women should have equal opportunities in areas of decision making, training, and governance.

9.12

Any form of discrimination or violence against women, and more generally gender based discrimination and violence, shall not be practiced or tolerated by any operator, in any area under their supervision.

Operators should adopt guiding and strategic documents and/or practices promoting gender equality among employees and contractors by furthering equitable opportunities and inclusive value chain.

AREA OF APPLICATION

Applicable to all operators and organisations participating in the POS organic guarantee system.

CONTEXT

Discrimination against women and gender inequality are a prevalent and pressing social issue in the Pacific, where violence against women is extremely high.

The discrimination and inequality stems from strongly held stereotypes about what women and men are, what they should do and how they should behave.

Pacific leaders have publicly set out their intentions on gender equality, for instance in the 2012 Pacific Leaders Gender Equality Declaration (PLGED)[4], reaffirmed in 2015 [5].

[4] https://forumsec.org/publications/revitalised-pacific-leaders-gender-equality-declaration

[5] See also the Pacific Platform for Action for Gender Equality and Women's Human Rights 2018–2030, part I and part II.

DEFINITIONS

"Gender equality refers to the equal rights, responsibilities and opportunities of women, and men, girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognising the diversity of different groups of women and men.

Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between people – women, men, non-gender conforming people - is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centred development.

Gender equality means that women and men of all ages, in all their diversity, have equal rights in all areas of life:

- The right to be safe;
- The right to be respected;
- The right to earn incomes;
- The right to express their views and be heard;
- The right to express their gender identity;
- The right to choose how many children they have;
- The right to choose their partner;
- The right to have safe and accessible services and infrastructure for women and men differently abled;
- The right to participate in decision-making and occupy leadership positions;
- The right to decide for themselves the future they want."

Definitions

Of particular concern is the violence which can be inflicted on women, non-gender conforming people, or sexual minorities. Education and awareness raising on what constitutes gender-based violence is a first step, and all operators should contribute to create an environment free from violence, safe for women's and everyone's participation. This needs to be supported by tools/systems and actions taken to 1) prevent any violence and 2) address any occurrence, at the level of the operator, at the level of PGS or third-party certifiers, and throughour POETCom. Tools can include contacts for local organisations supporting victims of violence, appropriate disciplinary sanctions for perpetrators of violence, a point of contact (e-mail, phone number) that can be contacted to report cases of violence, local gender equality/women's groups, etc.

Specific attention also needs to be given to gender in decision making: often, places or spaces where decisions are made do not include women, or they are underrepresented. This can be changed through active monitoring, pro-active practices to include more women and groups which are underrepresented in decision making.

Operators and other organisations managing the Organic Pasifika label need to have policies in place to support their decision-making process once they are made aware of cases of gender-based violence. The policy should be appropriate to the size of the operator and does not need to be written for operators with 10 or fewer employees.

Wherever possible, especially when calling meetings or organising training, gender parity in participants and speakers/trainers should be sought by the organisers. The approach, timing and venue of such trainings or meetings should be designed to suit men's and women's needs and capacities, especially with regards to mobility and other constraints on their time.

APPENDICES

APPENDIX I

SUBSTANCES PERMITTED FOR USE IN ORGANIC PRODUCTION: NO ADDITIONAL GUIDELINES FOR TABLES 1-5

REFERENCE TO A GUIDELINE

Guideline n° P1/2013

Allowable inputs

To be recognised as allowable under the Pacific Organic Standard inputs must:

1. Be listed as allowable in the POS. For any commercial products, mixtures or formulations, a full ingredients list must be on file of the licensee and proof must be provided of GE free status on the product.
2. Registered as allowable by an accredited certification body (i.e. those that are IFOAM or ISO 65 accredited and including BioAgriCert (BAC), Biogro NZ, the National Association of Sustainable Agriculture Australia (NASAA), Australian Certified Organic (ACO), OMRI and ECOCert). Allowable usage includes applying any restrictions defined by the approving certifying body. Inputs must also be listed as allowable in the POS and in line with any guidelines issued by the POETCom Standards and Certification Committee (SSC).

POETCom Registered Participatory Guarantee Systems are to be responsible for approving their own input list in line with these guidelines and provide the list annually to POETCom SSC for verification.

Effective date: 20 May 2014

Guideline n° P1/2016

REFERENCE TO A GUIDELINE

Preservatives and stabilizers for fish waste fertilizers

- Formic acid is not allowed for use as a stabilizer or preservative under the POS.
- Citric, and phosphoric acids are permitted for this purpose.
- Other non-acid options include microorganisms.
- The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.

Effective date: 8 June 2016

Guideline n° P1/2021

REFERENCE TO A GUIDELINE

Use of Ethylene Gas

Add the following to POS Table 2: Crop Protectants and Growth Regulators: (iv) Others

Ethylene; for the floral induction process in pineapples

Effective date: 01 February2021

- **Table 1:** Fertilisers and soil conditioners (cont.)
- **Table 2:** Crop protectants and growth regulators
- **Table 3:** Natural substances that may not be used in organic plant production
- **Table 4:** Additives and processing aids for organic food processing
- **Table 5:** Cleansers and disinfectants applied directly to food preparation surfaces

Local organic matter

What are the benefits of organic matter in the soil?

Soil contains a small percentage of organic matter, usually between 1 and 5%. However, **this small amount of organic matter**, of which organic carbon makes up about half, **is very important for the functioning of soils and entire ecosystems**.

Indeed, soil organic matter plays multiple roles in ecological processes:

- It is the **staple food** of certain micro-organisms (bacteria and fungi among others) and many soil fauna organisms, some of which contribute to soil structure. These organisms in turn serve as food for various predatory and omnivorous organisms.
- It improves **storage of nutrients**, which can be released and made available for uptake by plants or other soil organisms. Its electrical properties allow it to retain about 6 times more nutrients than clay alone: this is why the **richness of organic matter in a soil has a strong influence on the capacity of the soil to retain and return nutrients**, by reducing the capacity of water to carry them away (leaching),
- Organic matter contributes to **soil structuring** because certain compounds produced by soil organisms act as "glue", which helps to aggregate mineral particles. This bonding between organic matter and mineral particles helps stabilise the structure of a soil and improves its porosity. This promotes good rooting and plant function,
- This structuring of the soil also favours good infiltration and drainage of water, and more generally the **capacity of the soil to retain water**, thus increasing the **useful** water **reserve** of the soil.
- Finally, by colouring the soil, which becomes darker in its presence, organic matter allows it to better capture solar radiation and to heat up more.

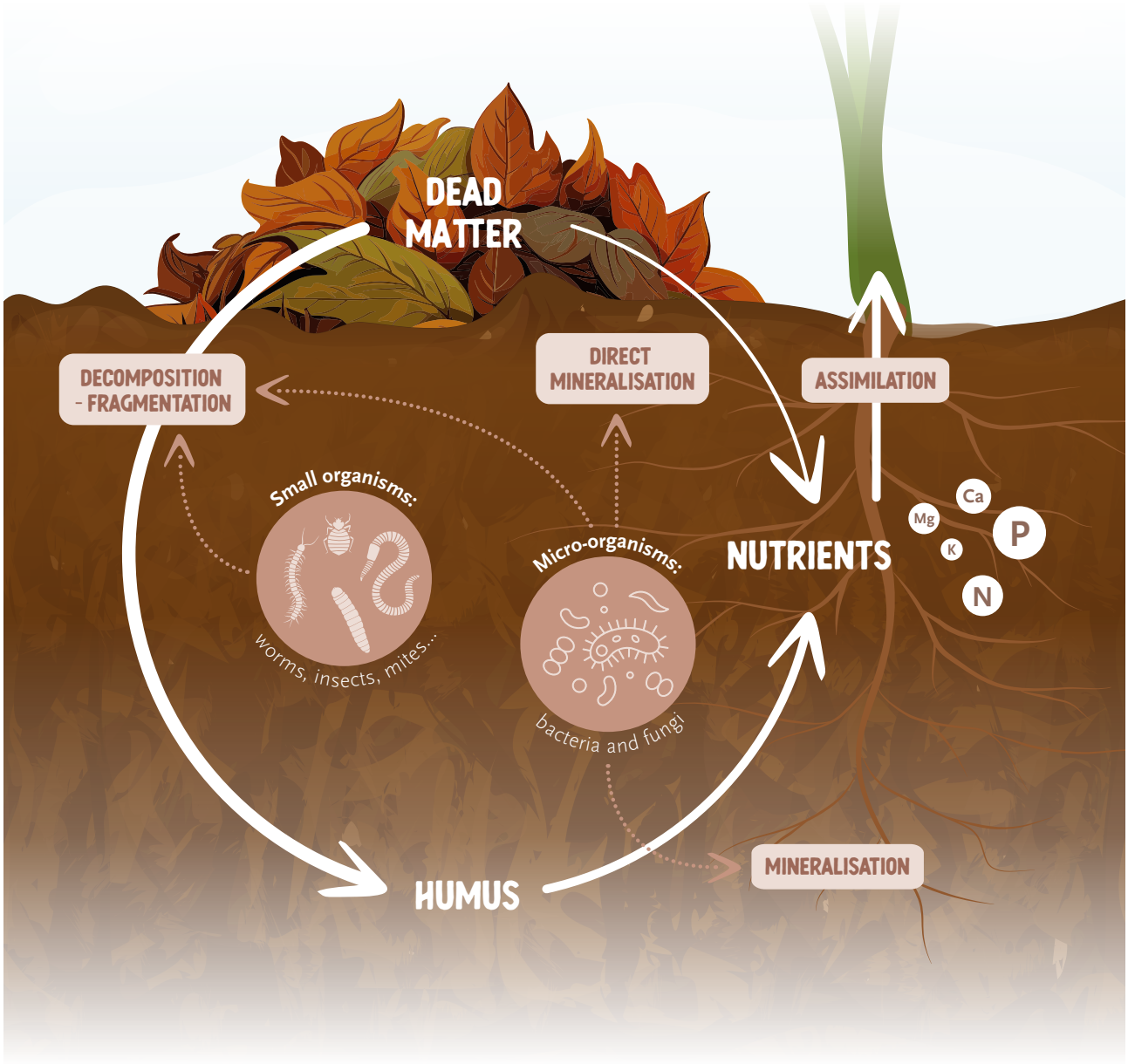
Adequate, all the more soil management has an important and positive impact on climate change, as carbon sequestration in the soils contributes to reducing CO_2 in the atmosphere.

What sources of organic matter are allowed by the POS?

Given the island context and the low availability of organic matter, POETCom encourages the use and integration of local organic matter in certified farms, even if it does not come from a production unit certified as organic.

Origin of Organic Matter	General opinion	Recommendations
Animal organic matter	**Authorised** Authorised with particular attention to the risk of water pollution	Must be applied to vegetated soil and: → Either composted with at least one temperature rise and composting record → Or applied at least 30 days before harvest (timeframe at the discretion of the Certification Body) Grazing of animals (certified or not) on Organic Pasifika certified plots is allowed. The animals must not receive deworming treatments while on the plot.
Plant organic matter	**Authorised**	Unless there is a clear case of contamination by a prohibited product (GMOs are also prohibited).
Organic material derived from the food industry	**Tolerated**	Investigate the risks of contamination.
Human excrement and sewage sludge	**Prohibited** (including urine)	

Role of organic matter



What are the golden rules for good composting?

- Choosing the right location
- Varying organic matter inputs
- Crushing of large elements
- Stirring regularly
- Monitor humidity

What does the POS recommend?

Large-scale composting plants:

- Composting for at least 3 months with at least one temperature increase to ensure sanitization
- Composting plan and auditable register must be kept up-to-date

What to look out for when it comes to composting?

- Control of organic matter sources
- Respecting the golden rules exposed earlier

Imported and synthetic products

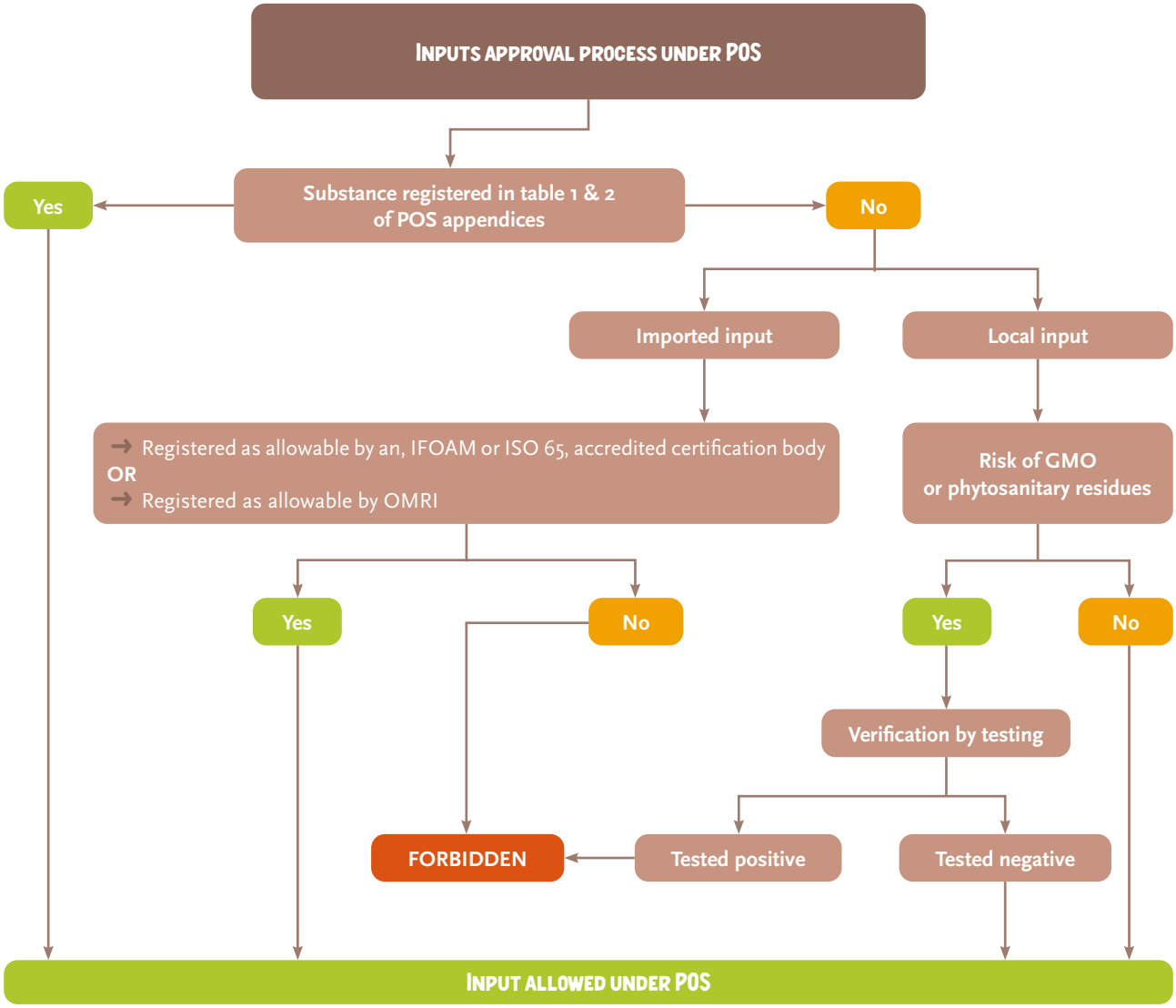
Cleaning and disinfecting products for surfaces and equipment in the processing plant

- It should be stressed that compliance with all relevant national and regional regulations takes precedence over the requirements of this standard.
- It is the responsibility of each certification body to monitor these regulations
- If the operator cannot use a product from table 5 of annex 1 of the POS, there must be an additional rinsing step between the use of the cleaning and disinfecting product and the handling of the Organic Pasifika labelled product.

Procedures for the approval of inputs

- Producers should contact their Certification Bodies before use if the product does not carry a label from an IFOAM member Certification Body.
- POETCom will do the work of setting up partnerships with different Certification Bodies to assess the feasibility of the input family project

In the meantime, we propose the procedure carried out by Bio Caledonia to PGS and CBs who would like to use it.



APPENDIX 2

HONEY COLLECTION PROTOCOL

Sampling to be carried out in the presence of a neutral person other than the beekeeper. The following instructions are the commonly applied ones. However, it should be cross checked with the analysis laboratory.

SAMPLING EQUIPMENT

- Sterile gloves (latex or nitrile)
- Plastic spoons
- Filter (fine mesh)
- Scale
- Permanent markers, pen
- Refrigerated cooler or a clean box
- Sterile sample storage container
- Sample collection form

AMOUNT OF HONEY TO BE COLLECTED

The amount of honey required for residue testing may vary according to the methods used by the laboratories. Several laboratories are able to perform an analysis from 10 g of honey (see **www.itsap.asso.fr**). However, most laboratories recommend taking a larger quantity so that they can repeat the analysis if necessary. **Quantity per sample = 200 g**.

PROTOCOL FOR SAMPLING IN THE HIVE

- Take honey randomly from different frames, giving preference to areas where the honey has not crystallized.
- Identify the storage container with a code specific to the sample and record it on the sample collection form. Be careful not to write the code on the container cap. This limits the risk of mixing up caps and allows the samples to be identified even when the containers are uncapped.
- Equip the storage container with an alimentary grade filter.
- Weigh the empty container with a balance and record its weight.
- Brush or shake the bees off the frames.
- Remove the honey with a plastic spoon and filter it before putting it into the storage container.
- Weigh the sample using scales and record the weight on the sample collection form.

PROTOCOL FOR SAMPLING IN THE HONEY HOUSE

Sampling

Sampling is random and is preferably carried out on full settling tanks.

If honey is already in jars, take random jars from the storage room.

Extraction

- Identify the storage container with a code specific to the sample and record it on the sample collection form. Be careful not to write the code on the container cap/lid. This limits the risk of mixing up caps/lids and allows the samples to be identified even when the containers are uncapped.
- Weigh the empty jar on the scale and record its weight.
- Open the settling tank and let the honey flow for at least 2 seconds.
- Place the sample jar under the honey flow so that it fills up completely.
- If there are several settling tanks, take an equivalent amount of honey from each of them.
- Weigh the sample, subtract the weight of the empty jar and record the weight on the sample collection form.

TRANSPORT AND STORAGE OF SAMPLES

- Transport the samples at room temperature to the storage location.
- Store samples in the dark and away from heat.

TRANSFER OF SAMPLES TO THE ANALYSIS LABORATORY

Contact the laboratory before transferring the samples to them in order to ensure the conditions of dispatch and reception (avoid days before weekends, public holidays, holidays). Samples can be sent at room temperature and protected from crushing. Each sample should be accompanied by a copy of its sample collection form. If samples are kept, store them in a refrigerator at 4-6°C.

A control sample from the same sample should be kept by the beekeeper. It is also recommended that these be kept at the same time as logbook data records.

APPENDIX 3

WAX COLLECTION PROTOCOL

Sampling to be carried out in the presence of a neutral person other than the beekeeper.

SAMPLING EQUIPMENT

- Sterile gloves (latex or nitrile)
- Disinfected tweezers
- Balance
- Sample collection form
- Disinfected knife with serrated blade
- Permanent markers, pen
- Hot water
- Cloth
- Refrigerated cooler or clean box
- Sterile sample storage container

QUANTITY OF WAX TO BE REMOVED

The amount of wax required for residue testing may vary depending on the methods used by the laboratories. Several laboratories (see **www.itsap.asso.fr**) are able to perform an analysis from 20 g of wax. However, most laboratories recommend taking a larger amount so that they can repeat the analysis if necessary. **Quantity per sample = 200 g**.

EXTRACTION

In the case of analysis of wax from active hives

- **Preferably cut out sections of the frame free of honey and bee bread.**
- Take the wax alternately from the edge and periphery of a brood frame and a rim frame.
- Regularly remove honey and wax debris from the blade with warm water and a cloth.
- Remove the brood from the cells using tweezers.

In the case of an analysis of embossed wax

- Randomly take several leaves from the same batch.
- Cut out sections from each sheet.
- Gather these sections into a large ball, about the size of a fist

Then place the collected samples in the containers (alimentary grade bags)

- Identify the storage container with a code specific to the sample and record it on the sample collection form. Be careful not to write the code on the container cap, if any. This limits the risk of confusion and allows the samples to be identified even when the containers are uncapped.
- Weigh the sample and record the weight on the sample collection form.

TRANSPORT AND STORAGE OF SAMPLES

- Transport the samples at room temperature to the storage location.
- Store samples in a dark place away from heat

TRANSFER OF SAMPLES TO THE ANALYSIS LABORATORY

Contact the laboratory before transferring the samples to them in order to ensure the conditions of dispatch and reception (avoid days before weekends, public holidays, holidays). Samples can be sent at room temperature and protected from crushing. Each sample should be accompanied by a copy of its sample collection form. If samples are kept, store them in the freezer at a temperature below -18°C.

A control sample from the same sample should be kept.

APPENDIX 4

WHAT IS THE ORGANIC GUARANTEE SYSTEM?

The organic guarantee system in the Pacific Community is managed by POETCom. This system assures buyers of products bearing a Organic Pasifika label that they have been produced according to the organic production rules set out in the POS.

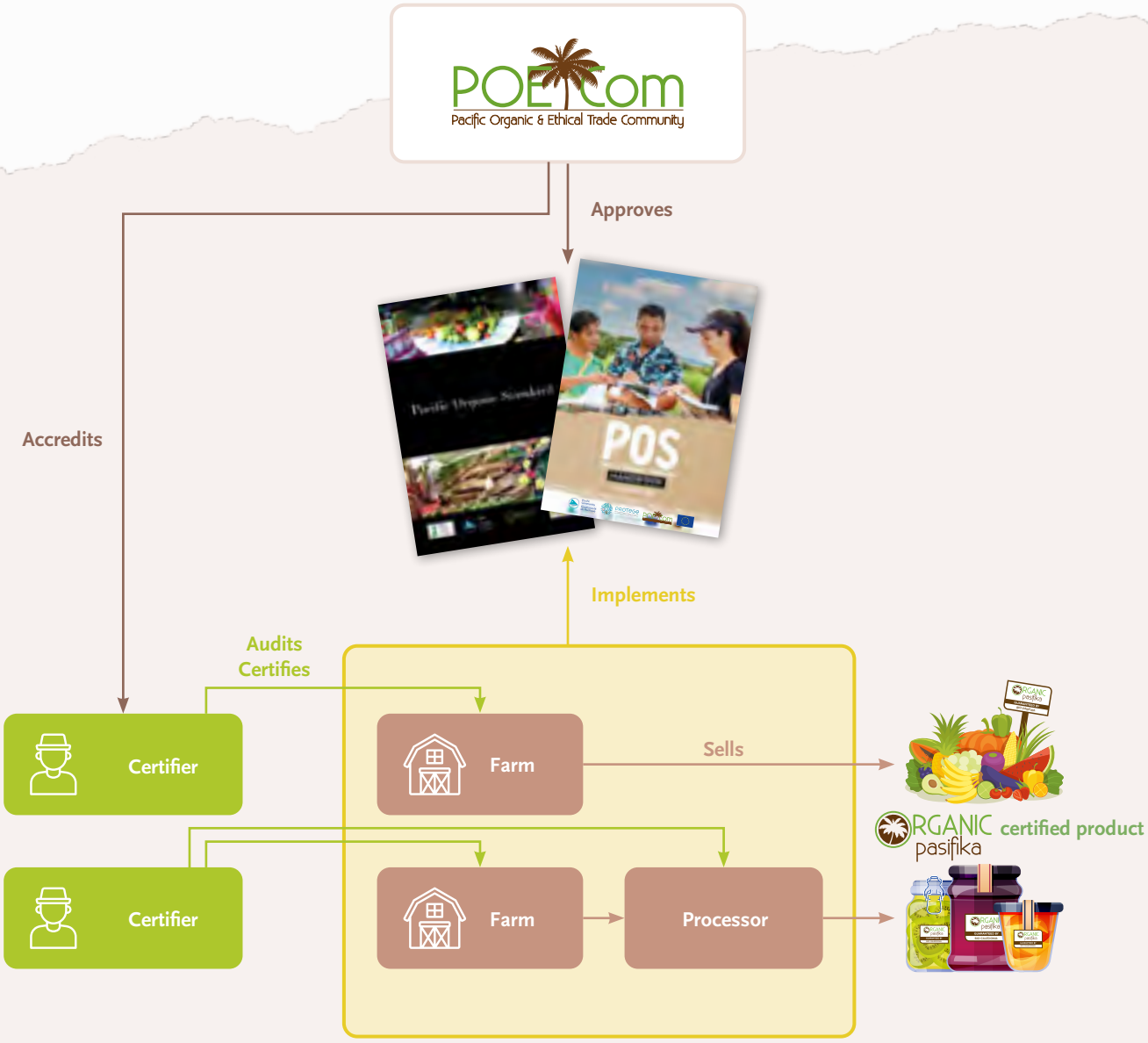
The key functions of the POETCom are:

1. Approval of the POS, and its possible revision. The POS defines the common rules for organic production.
2. Accreditation of certification bodies.

Accreditation consists of verifying that the organisations that wish to be able to issue the Organic Pasifika label are competent and that their operating procedures are credible/solid, and then mandating them to issue the label to anyone who wishes to do so.

Certification bodies (CBs) are:

- Either Participatory Guarantee Systems (PGSs) that bring together producers and consumers (for peer certification).
- Or third-party certifiers (independent of consumers and producers). Each Certification Body has its own certification procedure, validated by the POETCom.



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NOTES

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