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# INTRODUCTION

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## What is the Australian Organic Standard?

The Australian Organic Standard (AOS) 2006 outlines the requirements for marketing produce as certified organic in Australia. The AOS is based upon the AQIS (Australian Quarantine and Inspection Service) export Standard known as the National Standard for Organic and BioDynamic Produce and other international Organic Standard guidelines, creating a uniquely Australian Standard owned and controlled by the Australian organic industry and movement.

The Australian Organic Standard is continually being updated and developed via the BFA Standards Subcommittee Group. This Subcommittee is made up of industry members from across all main sectors and links in the food chain and technical experts in specific fields, while drawing directly on consumer and grass-roots member input on key decisions made regarding the Standard.

BFA's certification subsidiary Australian Certified Organic (ACO) carries out audits on businesses including producers through to retailers and all links in the chain in-between to ensure that they maintain conformance with this Standard. Businesses in compliance are licensed to display the "Bud" logo on packaging which is the purchaser's guarantee that what they are buying is truly organic.

## Directing the Standard

Existing Standards from across the world from North America, the EU and Asia, as well as the guidelines of the International Federation of Organic Agriculture Movements (IFOAM) and the Codex Alimentarius have been relied upon to ensure that the AOS remains in conformance with national and international requirements for trade in organic produce, wherever feasible in the Australian context, or with references to additional requirements for these markets.

The international trading scene for organic products has only grown more complex, and whilst BFA's certification subsidiary, ACO, is one of few certifiers in the world maintaining a high number of accreditations across the continents of the Americas, Europe and Asia, this does not shield exporters from the whims and exacting nuances of those regulations. Those with an interest in the export market are strongly advised to obtain additional advice on regulatory requirements at both the production and the certification level prior to going down that track.

The AOS also integrates food safety (Codex, HACCP) and Environmental Management Systems (EMS) requirements. These specifications continue to place operators certified to the internationally compliant ACO certification system clearly in a position of commercial advantage. These latest tools further enhance the ACO certification program in its core aims to deliver produce verified to be produced organically to one of the most stringent ecological, food safe and organic guidelines in the world.

Most importantly the AOS also contains "regionalised" or regionally appropriate regulatory options for producers where the Australian domestic market is the only marketing requirement. This has been an ongoing feedback from members: to have a practical, regionally appropriate Standard that Australia can call its own. The AOS is nonetheless still solidly based upon the internationally accepted standards of the organic community, ensuring consumer confidence and producer protection.

This breadth of consultation, and the referencing of regulations affecting organic production across the world, ensures that this standard is a leading international standard, owned by Australians for the Australian context, which can be relied upon with confidence by producers, preparers, handlers, marketers and consumers of certified organic products.

BFA is continually developing the standards with input from you, the stakeholders. In order to keep informed of Standards updates, reports from the BFA Standards Subcommittee may be accessed quarterly through BFA's member magazine *Australian Organic Business*.



Dr Andrew Monk  
Chairman  
BFA Organic Standards Committee



Paul Dargusch  
Group Chief Executive Officer  
BFA and ACO

# BACKGROUND ON BFA

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Biological Farmers of Australia (BFA) Co-op Ltd is Australia's largest representative member based organisation for organic agriculture in Australasia and the South Pacific region. The BFA maintains this status by being the industry's innovator and leader in organic regulation issues, employing skilled professionals and proficient technical review and standards personnel, whilst maintaining strong alliances and representation for regional, producer, processor, retailer, consumer and related groupings.

Active in trade promotion and standards setting since the inception of the formalised organic industry in Australia in the 1980s, the BFA is supported by a diverse membership of producers, input manufacturers, processors, wholesalers, retailers, consumers and others with a stake and interest in organic and biodynamic produce from production to consumption.

The BFA is administered by a Board of Directors who are individually elected from and by the membership biannually. Subcommittees represent sector interests and report to the CEO and Board of the BFA. See [www.bfa.com.au](http://www.bfa.com.au) for more detail and a history of the BFA and the organic industry.

**Australian Certified Organic Pty Ltd (ACO) is the certification arm of BFA Co-op Ltd. ACO independently audits, certifies and licences operators for use of the BFA registered BUD logo. ACO is the leading certification organisation for organic and biodynamic production in Australasia.**

The BFA has built specific linkages with HACCP, QA and EMS certification schemes which further enhance organic certification, and assist primary producers, processors and others who may also need to comply with such schemes.

To ensure leading edge trade access, ACO is active in establishing and maintaining 'certification transference' agreements with other international certifiers where relabelling or use of other logo marks is also required in specific markets. The BFA, via ACO, also has as a core aim to maintain trade in certified organic products in countries such as Japan, USA and EU, and to this end is the leader and innovator in certification in Australasia, being the first certifier in the region to be accredited by the USDA for the US market, whilst being the largest IFOAM accredited certifier in Australasia.

In line with providing a leading certification service to all its existing and prospective clients, ACO operates a Total Quality Management system conforming to AQIS (Australian government) regulations and hence to EN 45011, as well as USDA NOP, JAS, ISO 65 and IFOAM/IOAS criteria for organic certification organisations.

The BFA has access to a list of publications, videos, audio tapes and information facilities, while facilitating conferences and farm field days to encourage and assist in the conversion of production practices to organic. A register of independent advisers can also be obtained from the national offices.

Written advice must be sought and obtained where inputs or processes are not listed in this Standard, but are required for production under certified organic conditions.

**Where markets are involved outside Australia, the onus is on the operator and exporter to ensure that all other regulatory requirements, including additional organic regulatory requirements are being met, throughout the supply chain. This includes in some cases (e.g. the USA and Japan) that all suppliers to the end product are specifically and individually certified also to those market requirements. ACO certification can, but does not automatically give, certification and therefore access to these markets. Additional certificates from ACO shall be required in such cases.**

# 1. SCOPE

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- 1.1 This Standard outlines the minimum requirements for ACO certification of organic produce under the ACO certification system, and therefore use of the industry regulated BUD logo. This Standard also outlines requirements for Codex HACCP for safe food production, whilst also listing basic requirements for managing an organic Environmental Management System (EMS) and biodynamic production. This Standard also outlines specifications for allowed inputs and approved products registered under the BFA name, in Section 9.
- 1.2 This Standard applies to the following products that carry, or are intended to carry, descriptive labelling referring to organic production methods or organic certification:
- unprocessed products from plants, animals, cultured organisms and approved naturally occurring materials; and
  - processed products derived mainly from (a) above.
- 1.3 Products are not compatible with the principles of organic agriculture and are not permitted under this Standard where they are derived from **genetic engineering** (GE) practices or products, or are treated with **ionising radiation** for post harvest purposes.
- 1.4 Requirements in this Standard are complementary and additional to other health, agricultural, environmental, food and production related regulatory requirements at Commonwealth, State, Territory and other relevant levels. This includes adherence to the Agricultural and Veterinary Chemicals Code Act 1994 and the Agricultural Pesticides and Veterinary Medicines Association (APVMA), formerly the National Registration Authority (NRA), which prescribes registration and exemption requirements.
- 1.5 This Standard should be read in conjunction with the current version of the AQIS National Standard for Organic and Biodynamic Produce (2004) and subsequent amendments, and other relevant Standards for those planning to export. For Australian based producers, this Standard should also be read in conjunction with Export Control (Organic Produce Certification) Orders No. 6 (1997). **Note that for those planning to export, minimum requirements of the importing country also need to be met. Such requirements may be in addition, and sometimes contrary, to those outlined in this Standard. Onus is on the certified operator to ensure that these additional criteria are met for access to those markets. In regard to USDA NOP Standard, the US Standard overrides some aspects of this Standard – except in instances which are required by law (eg Australian Export Orders requirements) for export out of Australia.**
- 1.6 This Standard is also based upon the guidelines set out by the Codex Alimentarius Commission for the Production, Processing, Labelling and Marketing of Organically Produced Foods (1999).
- 1.7 **This Standard is current from 1 March 2006** until such time as a new edition, or amendments, is released under the authority of the Biological Farmers of Australia. All changes to this Standard which differ from Version 6 and subsequent amendments of the Standard shall be **implemented no later than 1 July 2006** without prior request and acceptance from the ACO office.
- 1.8 Note should be taken at all times of amendments to this Standard which may occur from time to time, which shall take the form of notification in writing to all certified members. Such amendments will supersede existing respective clauses outlined in this Standard, with time frames for implementation outlined by ACO, and may occur where there are changes to regulatory requirements, technologies or techniques. ***This is a living Standard; hence the onus is on the operator to ensure that their practices at all times comply with the latest requirements outlined.*** The BFA and ACO reserve the right to amend this Standard at any time in order to remain compliant with such requirements, whilst also being required to regulate to specific markets which the client may wish to have access – which may entail requirements above or different from the exact details of this Standard.

## 2. DEFINITIONS

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**ACO:** Australian Certified Organic Pty Ltd. This organisation carries out all auditing, review and certification work which enables the licensing of the BUD logo and reference to certified organic or biodynamic status.

**Agricultural Product:** Any product or commodity (excluding water, salt and additives), raw or processed, that is marketed for human consumption or animal feed.

**Agricultural Pesticides and Veterinary Medicines Association:** APVMA formerly the National Registration Authority (NRA). Federal organisation regulating the use of agricultural pesticides and livestock treatments for disease and pest control applications.

**Allowed: (A)** Input which may be used within an organically certified system without affecting certification. BFA maintains a formal register of Allowed Inputs (AIs) and Approved Products (APs) which are registered products having been assessed to comply with requirements outlined in this standard for use in organic production systems.

**AQIS:** Australian Quarantine and Inspection Service – Organic Program. AQIS has an organic program arm which administers the National Standard for Organic and Biodynamic Produce and which accredits certifiers such as ACO to this program. The AQIS program is deemed to be equivalent to EN45011 and to the EU Organic Standard 2092/91.

**Audit:** A systematic and functionally independent examination, and reporting to a designated review committee, to determine whether activities comply with planned objectives and requirements of relevant Standards. This may include unscheduled audits and gap audits. This is also referred to within the organic industry internationally as an inspection.

**Auditor:** A person deemed by the certification office to have the expertise and authority to inspect and audit operators in regard to compliance to this Standard for certification purposes.

**BFA:** Biological Farmers of Australia Co-op Ltd. This organisation manages the Australian Organic Standard, whilst being Australia's main representative grouping of organic and biodynamic interests in Australasia.

**Biodynamic (BD):** Production system based upon principles and preparations established by Rudolf Steiner.

**BUD logo:** The logo owned and registered with IP Australia by the BFA Co-op which is used on organic and biodynamic products produced in accord with this Standard and licensed by the ACO for use. The BUD logo is Australia's main and most popular organic certification logo and mark.

**Certified:** To have been audited and subsequently licensed by Australian Certified Organic Pty Ltd (ACO) in accordance with the Australian Organic Standard.

**Certification Office (CO):** Official office of Australian Certified Organic Pty Ltd (ACO) for purposes of maintaining licence agreements, coordinating audits and assessing ongoing conformance with the Standard via use of technically based committees such as the CRC.

**Certification Review Committee (CRC):** Committee of Australian Certified Organic Pty Ltd (ACO) which uses audit reports and other means to make decisions regarding certification of operations and properties.

**Certification Transference:** Arrangement between certification bodies regarding recognition of another certification system and certified products as equivalent for handling and marketing as certified organic. Such arrangements are required for all non ACO certified products or operations. See Section 3.8

**Compliance:** Actions or outcomes which relate to meeting requirements of this Standard or of the operator's OMP. Non compliance is where such actions or outcomes do not meet specifications of this Standard or the OMP.

**Conventional:** Primary production or food preparation which does not conform to the Australian Organic Standard.

**Conversion:** See Organic in Conversion.

**Corrective Action Request (CAR):** Action taken by an operator following a non compliance or systems deviation to ensure ongoing certification and compliance to the Australian Organic Standard. Such actions may be requested by the certifier following noted non conformance to the Australian Organic Standard.

**Direct Source Organism:** The specific plant, animal or microbe that produces a given input or ingredient, or that gives rise to a secondary or indirect organism that produces an input or ingredient.

**EMS:** Environmental management system: a system which aims to manage environmental aspects of the operation.

**Export Certificate:** Essential certificate from CO for export of all organic products out of Australia.

**Farm Unit:** Sections of land fully under the management control of one party or person. There may be more than one farm unit owned and managed by a single party or operator.

**FSANZ (Food Standards Australia and New Zealand):** Food Authority, which lists Maximum Residue Limits (MRLs) for agrichemicals in or on food and fibre and sets food standards. The Australian Organic Standard is in addition to these requirements (formerly ANZFA [Australian and New Zealand Food Authority]).

**Gap Audit:** An audit which assesses areas where the operator may require modification to plans or practices prior to certification or prior to addition of areas or products for certification. Also referred to as a desk audit, such audits may either occur by document review and/or on site assessment.

**Genetic Engineering (GE):** A set of techniques from molecular biology by which the genetic material of plants, animals, micro-organisms, cells and other biological units may be altered in ways or with results that could not be obtained by methods of natural mating and reproduction or natural recombination. Techniques of genetic modification include, but are not limited to: recombinant DNA, cell fusion, and micro and macro injection. Genetically engineered organisms will not include organisms resulting from techniques such as conjugation, transduction and hybridisation.

**Genetically Modified Organism (GMO):** A plant, animal, or microbe that is transformed by genetic engineering.

**Hazard Analysis Critical Control Point (HACCP):** Management system oriented towards minimising or eliminating hazards posed as part of the production process through means of monitoring and verification. For organic operators, HACCP management implies a system of identification of all significant hazards which may compromise an ability to conform to the Standard for organic production, identifying control points, putting in place management practices which help eliminate or reduce risks associated with those hazards, and then maintaining verification processes to ensure that management practices are effective.

A hazard for some organic producers may be the potential for chemical over-spray from neighbouring farming activities or cross pollination potential from GMO crops. Other hazards may include old dip sites or other potentially contaminated areas which may require fencing off, or management of stock to ensure restriction of access. All significant food safety risks shall also require HACCP based management to be implemented in organic operations.

**IFOAM:** International Federation of Organic Agriculture Movements. IFOAM is the international representative organisation for organic agriculture, whilst also setting the IFOAM Basic Standard (IBS) or IFOAM Norms. In addition IFOAM maintains an accreditation program via the International Organic Accreditation Service (IOAS) which accredits certifiers such as ACO. IFOAM requirements may be driven by market or buyer demands or requirements (in addition to government regulations). Operators need to remain aware of what these requirements are and monitor their own marketing needs.

**Ingredients:** All products and aids which constitute or are used in the production of a processed or prepared product.

**Inputs:** Materials which are brought onto the farm unit to assist with production.

**Inspection:** See Audit.

**JAS** The regulatory system applying in Japan and regulated by the Ministry for Agriculture, Fisheries and Food (MAFF) called the Japanese Agriculture System – Organic (JAS). Note that the regulatory requirements for this standard and certification program are specified in a separate text which the certified operator must obtain, maintain and ensure compliance to, in order to maintain certification to this regulation,

**Labelling:** Any words, particulars, trademarks, brand names, names of certifying organisations, pictorial matter or symbols appearing on any packaging, document, notice, label or collar accompanying or referring to a certified organic product.

**Land Unit:** Section or portion of land as compared with entire farm unit – made up of all land units within the farm.

**Level of Reporting (LOR):** For pesticide and heavy metal residue tests. <LOR = less than level of reporting.

**Levy:** Fees payable to the CO, based upon turnover, to maintain ongoing certification.

**Licence Agreement:** Legally binding contract between ACO and operator pertaining to organic certification.

**Licensee:** Operator and/or owner of operations covered under the licence for organic certification.

**Logo:** ACO/BFA distinguishing mark registered by IP Australia.

**Manufactured Inputs (MI):** Physically compounded inputs allowed by CO under this Standard.

**Marketing:** Holding or displaying for sale, offering for sale, selling, or placing on the market.

**Maximum Permissible Concentration (MPC):** Maximum concentrations of given substances (heavy metals) allowed in foods as set out by the National Health and Medical Research Council (NHMRC) -Australia.

**Maximum Residue Limit (MRL):** Maximum residues of given substances, such as agrichemicals allowed on foods as set by Food Standards Australia and New Zealand (FSANZ).

**Organic Management Plan (OMP):** Management plan which outlines production plans to achieve ongoing conformance with this Standard. This may include identification of key management personnel, fertility, pest and disease management plans, documented recording systems and future on site plans (increasing stock numbers, new crop types, longer term reduction of inputs, etc). Such a plan may include a section based upon HACCP principles (see above) where there are identified potential hazards to the production unit's organic certification.

For *primary production* this is known as an **Organic Farm Plan (OFP)**. The OFP may outline buffer zone establishment in relation to containing neighbouring chemical over spray risk or potential contamination from GMO crops. Other identified risks may be brought-in manures or other materials which may require residue testing or composting, which would be outlined in such a plan. Such a plan forms the basis of certification and auditing.

For *processing, preparation or other handling operations* this is known as an **Organic Handling Plan (OHP)**. The OHP would outline management control, audit trail recording systems and related management systems to be implemented or currently practiced to ensure maintenance of certified product authenticity and full conformance with this Standard.

**Organochlorines (OCs):** Class of conventional agricultural chemicals, typically DDT and Dieldrin, prohibited for use under this Standard and restricted as allowed historic residues on organic farms. See Section 4.8.

**Organophosphates (OPs):** Class of conventional agricultural chemicals, based upon phosphorus esters, prohibited under this Standard and prohibited as residues on certified organic products. See Section 4.8.7.

**Operator:** Licensee of organic certification licence responsible for management or for delegation of management for the production unit or units and products listed in the licence agreement.

**Organic:** Production practices which conform to this Standard for production.

**Organic in Conversion:** Period of time prior to full "organic" status being given to an operator and farm unit.

**Precautionary Principle:** Principle which states that where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. Decisions should be guided by: (i) careful evaluation to avoid wherever practicable, serious or irreversible damage to the environment; and, (ii) an assessment of the risk-weighted consequences of various options.

**Pre Certification :** Period of time – generally a minimum of 12 months – prior to a certification level being obtained by the operator – for land based primary production systems within Australia. Produce cannot be sold with any reference the wording 'certified organic' in this period.

**Preparation:** See processing

**Preventative Actions:** Actions taken to ensure that procedures are in conformance with the Australian Organic Standard.

**Processing:** Operations which may consist of slaughtering, processing, preserving and packaging of agricultural products and alterations made to labelling concerning the presentation of organic products.

**Production Unit:** Farm, processing or other commercial entity operated or managed for the purposes of food and/or fibre production, preparation or handling.

**Prohibited (P):** Substances or practices disallowed under this Standard. This standard is a positive list, meaning only those substances listed are allowed for use on certified facilities or farm units.

**Quarantine:** The isolation of livestock from the certified area of the farm for a given period.

**Quarantine Area:** A dedicated area of the farm which is used for the purposes of quarantine and/or withholding practices.

**Restricted (R):** Input which may be used on a limited basis with verification required by the user as to its need value.

**Standard:** In this publication refers to this Australian Organic Standard (AOS) 2006 and subsequent amendments for organic production preparation and marketing. The Standard defines criteria for assessment for certification.

**Sustainable Agriculture:** Production system exhibiting resilient ecological and economic characteristics.

**Transaction Certificate:** Document which accompanies certified goods outlining type of goods, batch number or identification, certification status, etc (available from ACO office). See 3.4.3.

**Transport Declaration:** As for Transaction Certificate - applicable for bulk commodities (e.g. wheat) and livestock (available from ACO office). See 3.5.3

**USDA NOP:** The regulatory system applying in the United States and regulated by the US Department of Agriculture (USDA) called the National Organic Program (NOP). Note that the regulatory requirements for this standard and certification program are specified in a separate text which the certified operator must obtain, maintain and ensure compliance to, in order to maintain certification to this regulation. Certification to USDA NOP is available via ACO, being a USDA accredited certifier.

**Verification:** System of assessment used by CO for attainment or maintenance of certification. This includes, but is not limited to, the audit system, statutory declarations, testing and records and documents maintained by the operator.



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# HOW TO USE THIS STANDARD

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## 3 GENERAL CERTIFICATION REQUIREMENTS

All sectors (from farming to retailing) need to ensure they have followed the procedures for certification outlined in **Section 3**. Section 3 relates to documentation required, records and management systems, including allowances for labelling and marketing claims for organic.

Section 3 also outlines the requirements for an Organic Management Plan (OMP) for certified operations. See also [www.aco.net.au](http://www.aco.net.au) for templates of OMPs as well as templates for record keeping (which are guides and not mandatory).

Also on our website are the audit report templates which our auditors use at the time of your audit. It is strongly recommended that you conduct an “internal audit” on your own operations to assure yourself that you are complying with the requirements both prior to your first audit, and at half yearly intervals, for your own assurance and to enable the auditing process to be straightforward and efficient for your business.

## 4 PRIMARY PRODUCTION

In addition to section 3, all land based primary production operations need to comply with **Section 4**. This outlines land management requirements, water management, GMO and other potential contamination risk management and inputs for farming (see also **Annex I** which lists products allowed). Please pay attention particularly to section 4.8 – contamination, and to 4.7 – environment. Depending on your type of operation you may need to include some additional aspects in your OMP based upon specifications in these sections.

The BFA also maintains a register of Allowed Inputs which are listed on the BFA website. If your products are likely to be exported you may need to do additional investigation in regard to the specific requirements of the market your product is bound for particularly which inputs are allowed by those countries.

If you wish to be certified to biodynamic (BD) specifications, **Annex V** outlines the additional requirements for this.

## 5 LIVESTOCK OPERATIONS

**Section 5** outlines requirements for the organic management of livestock, from poultry, dairy, sheep to beef cattle. Also **Annex II** outlines allowed livestock inputs. There is also a BFA register of livestock treatments which have been approved for use, listed on the BFA website.

Livestock producers must also ensure that the land on which livestock are managed is compliant with Section 5.

If livestock are sent to an abattoir off site, then the abattoir must also be certified and comply with the requirements outlined in **Section 6** – Processing.

## 6 PROCESSORS

In addition to Section 3 on records, documents and labelling, all processors, from abattoirs to packhouses need to comply with the requirements in **Section 6** as well as the **Annexes III and IV** for allowed ingredients, processing aids and sanitisers.

## **7 NON LAND BASED PRODUCTION SYSTEMS**

There are additional specific requirements in **Section 7** for miscellaneous production systems including aquaculture, mushroom production, honey, forestry, seed and seedling production. In some cases, other sections of the Standard are also required to be conformed with such as Section 3 and also Section 4 where referenced, in addition to the Annexes.

## **8 WHOLESALERS AND MARKETERS**

Operations which deal in the wholesaling and/or marketing of certified organic products, including retailers and restaurants, need to comply with **Section 8** as well as Section 3 and in some cases Section 6 (Processing and Handling).

## **9 INPUT MANUFACTURERS AND APPROVED PRODUCTS REGISTRATION**

The BFA, separately from ACO, maintains a register of (non agricultural) approved products and allowed inputs for agriculture. This is outlined in **Section 9**. The list of currently registered products can be found at [www.bfa.com.au](http://www.bfa.com.au)

*Issues pertaining to GMOs, general contamination issues, environmental management, food safety and related issues are to be found in specific sections of this Standard that can be searched for by looking up the **index** at the end of this document. These issues are usually relevant to ALL sectors mentioned above.*

# CERTIFICATION REQUIREMENTS: GENERAL

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## 3. BASIC CERTIFICATION REQUIREMENTS

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Reference to organic or biodynamic certification with ACO and/or BFA and use of the BUD logo requires licensing via Australian Certified Organic Pty Ltd (ACO), and conformance to this Standard. Legal or other means shall be pursued where incorrect or unauthorised use of the logo and name of the BFA or ACO is found to be occurring. Operators wishing to utilise the BUD logo for organic certified products are required to undertake the steps outlined below in Section 3 whilst conforming to criteria relevant to their sector – Cropping and Horticulture to Section 4; Livestock to Section 4 and 5; Processing to Section 6, etc.

### 3.1. Certification Process

#### Application Process

- 3.1.1. For all sectors of certification, the operator makes application to the Certification Office (CO), and completes a Statutory Declaration Questionnaire supplying all relevant details of the production unit's history, current operations and production output, management details and production plans. Application may be made for certification for a given management unit or part of that unit – which may comprise single ownership and/or single management control.
- 3.1.2. Onus is on the operator and their workforce to ensure at all times that they are fully aware of all relevant aspects of the Standard as they pertain to their operation, whilst remaining aware of extra requirements that may be stipulated by other regulators and/or markets which may be in addition to or different from this Standard. Achievement and maintenance of certification is based upon active management steps by the certified operator.
- 3.1.3. Initial application and audit deposit shall be paid to ACO, and complete documents submitted for desk review, before an initial site assessment and audit shall be arranged.
- 3.1.4. Certification of a production unit applies to the operator who owns, leases or has legally recognised and enforceable management control of such production units or facilities. Certification therefore is not transferable but applies to both the operator and the production or preparation facilities, farm or area of land certified.
- 3.1.5. Certification of **preparation/processing, manufacturing** or related facilities may be given following CO review of the initial on-site inspection. The operator must be able to verify adherence to the requirements of this Standard and special conditions laid out by the CO in the licence agreement, while exhibiting effective management control for organic product handling, preparation and despatch, as outlined in Section 6.
- 3.1.6. For land based primary production sectors within Australia, prior to certification being granted a 12 month period under the ACO audit system, or similar recognised audit system, shall take place known as Pre-Certification. During this period, there shall be an initial ("gap" audit) and at a minimum one full on-farm audit, which will include the assessment of organic management and the taking of soil and/or tissue samples for the testing of contamination from eg veterinary and agricultural chemicals, heavy metals and/or GMOs, where applicable. Such testing may assess products and processes throughout the production and preparation chain. During the Pre-certification period, labelling of product shall not make reference to the production method as organic, the certification agency or that the product is under an organic auditing and/or certification system.

- 3.1.7. Prior to auditing, an Organic Management Plan (OMP) shall be established outlining plans to enable ongoing adherence to the Standard, with key reference, where relevant, to HACCP based plans in the case of identified hazards to organic production or food safety. (See also Section 4.6) This plan may be incorporated as part of existing plans and management systems and shall highlight and assist in monitoring and verifying how, through time, the operator is continually improving the environmental and productivity outputs of the operation.

For **Primary Production sectors**, the Organic Farm Plan (OFP) shall at a minimum address the following:

Fertility and Soil Management; Pest, Disease and Weed Management; Biodiversity and Environmental Management (4.7); Water Management; Contamination prevention Management (4.8); Record Keeping system including monitoring practices (e.g. for soil fertility, salinity, etc); and Livestock Feed, Health and Welfare Management (where relevant), use of restricted products and regular use of products listed in Annex I and II.

For **Processors and Handlers** of certified products, the Organic Handling Plan (OHP) shall outline the products processed/handled; all ingredients to be sourced with plans outlined to ensure valid certification status, GMO and irradiation-free status; outline of record keeping system; outline of monitoring practices and procedures to ensure that the plan is effectively implemented (including regular reviews of non organic ingredients and the non GE status of ingredients); other management practices and personnel responsible to ensure there will be no co-mingling with non certified product and that organic integrity is maintained. See Section 6 Processing/Preparation.

- 3.1.8. For **primary producers**, following a minimum of one full audit outlined in 3.1.6 the CO shall ascertain the degree to which the operator has complied with the relevant aspects of the Standard and to their Organic Management Plan. Based upon the decision of the CO, and the signing of the licence agreement, the operator may be given a certification level by ACO, based upon an evaluation of their circumstances.

#### **Conversion Periods and Qualification for Certification**

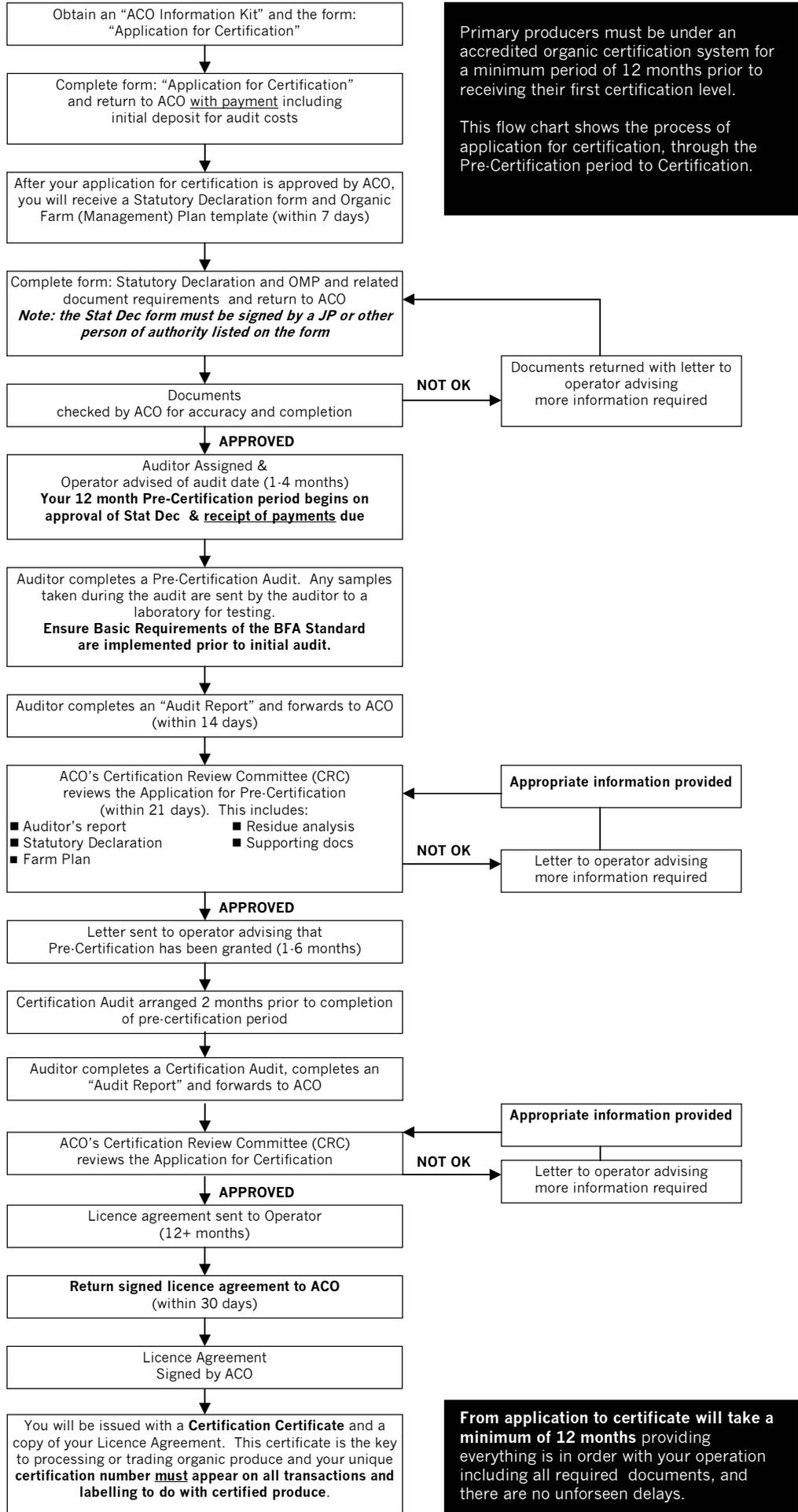
- 3.1.9. For non-perennial cropping, certification of farm units as “In Conversion to Organic” may be given where the operator has a verified minimum of 12 months of conformance with the Standard. Only crops with a verified minimum of 12 months of conformance with the Standard at or before the point of harvest may be certified as “In Conversion to Organic”.
- 3.1.10. For perennial systems (other than pastures and meadows) certification of farm units as “In Conversion to Organic” may be given where the operator has a verified minimum of 18 months of conformance with the Standard. (Note, where IFOAM requirements are not required by the operator, a minimum of 12 months of conformance with the Standard for perennial systems is required prior to “In Conversion to Organic” certification being granted.)
- 3.1.11. For pastures, meadows and products harvested from them, certification of farm units as “In Conversion to Organic” may be given where the operator has a verified minimum of 12 months of conformance with the Standard
- 3.1.12. Certification of farm units and perennial and annual crops as “Organic” may be given where it has been verified that the past three years of farm management have been in compliance with the relevant sections of this Standard at or before the point of harvest of the crop/s in question, that organic quality criteria have been achieved, and that management plans and ability are sufficient to achieve ongoing conformance with the Standard.
- 3.1.13. Where GMOs may have been (actively or inadvertently) used in the production system, a minimum of five (5) years must elapse prior to certification of the land and or crops as certified “Organic”. Where there remains risk that contamination may occur to the end crop seeking certification as “Organic”, certification may not be granted by the CO.
- 3.1.14. The addition of (uncertified) production units or products to existing certified units/product list in subsequent years shall require audit and verification of conformance with the Standard for the additional units/products in question. Parcels of land within the existing (partially) certified farm unit or units under current certified management may achieve certification based upon a case by case basis to assess verified conformance with this Standard for the time periods specified above.

- 3.1.15. In regard to prior or existing certified organic operators and operations, with prior verified management of organic production systems, and where prior certificates are validated, certification may be granted – where compliance is verified in regard to required time periods under organic management of land units for which certification is sought.
- 3.1.16. Livestock production systems may be certified where there is verified production conformance with all relevant sections of this Standard, including conversion periods, and where the animals have access only to areas of land or facilities which are verified to be in compliance with this Standard for the required time periods as outlined in 3.1.6 – 3.1.13. Livestock only with a verified, documented history of conformance with the Standard throughout their entire lives and with traceable and clear identification may be deemed certifiable. See Section 5.

**Restrictions to Granting of Certification**

- 3.1.17. No certification shall be given where the CO is not supplied with sufficient verifiable information as to the history of the operation, where it is deemed that the Standard has not been fully complied with, or where management practices and organic or environmental aspects are not deemed to satisfy the production requirements for certified organic products.
- 3.1.18. Certification may terminate at such time that a production unit changes ownership or management hands. In such instances, the new operator shall apply for certification if they wish to continue certification on that production unit. New management shall require assessment by the CO for continuity and ability to manage in conformance with this Standard. New processes or products shall also require assessment by the CO for conformance with this Standard prior to certification.
- 3.1.19. Land units and/or livestock may not be brought in and out of certification over time, but shall be maintained under organic management. In the case of requirement for mandatory application of prohibited products onto certified lands or stock (eg statutory control of noxious weeds), prior approval must be sought and achieved from the CO and lands and/or stock so treated shall be removed from certification. Additional inspection of lands and production by ACO may be required in such events at the expense of the operator.
- 3.1.20. Initial certification may be given to land units rather than the entire farming operation where such land units are physically isolated within the farm unit and where the criteria outlined in 3.6 are complied with. In such circumstances, the Organic Management Plan shall outline plans for conversion of other areas and management strategies to ensure segregation of parallel products and production activities. The timeframe for full conversion shall be 5 –10 years, depending on the type of production system and assessment by the CO. Such a period shall not be greater than 10 years except in circumstances granted by the CO. Note that certain market requirements require complete conversion of livestock and the whole farm prior to recognition of certification of products (eg Bio Suisse, Naturland).

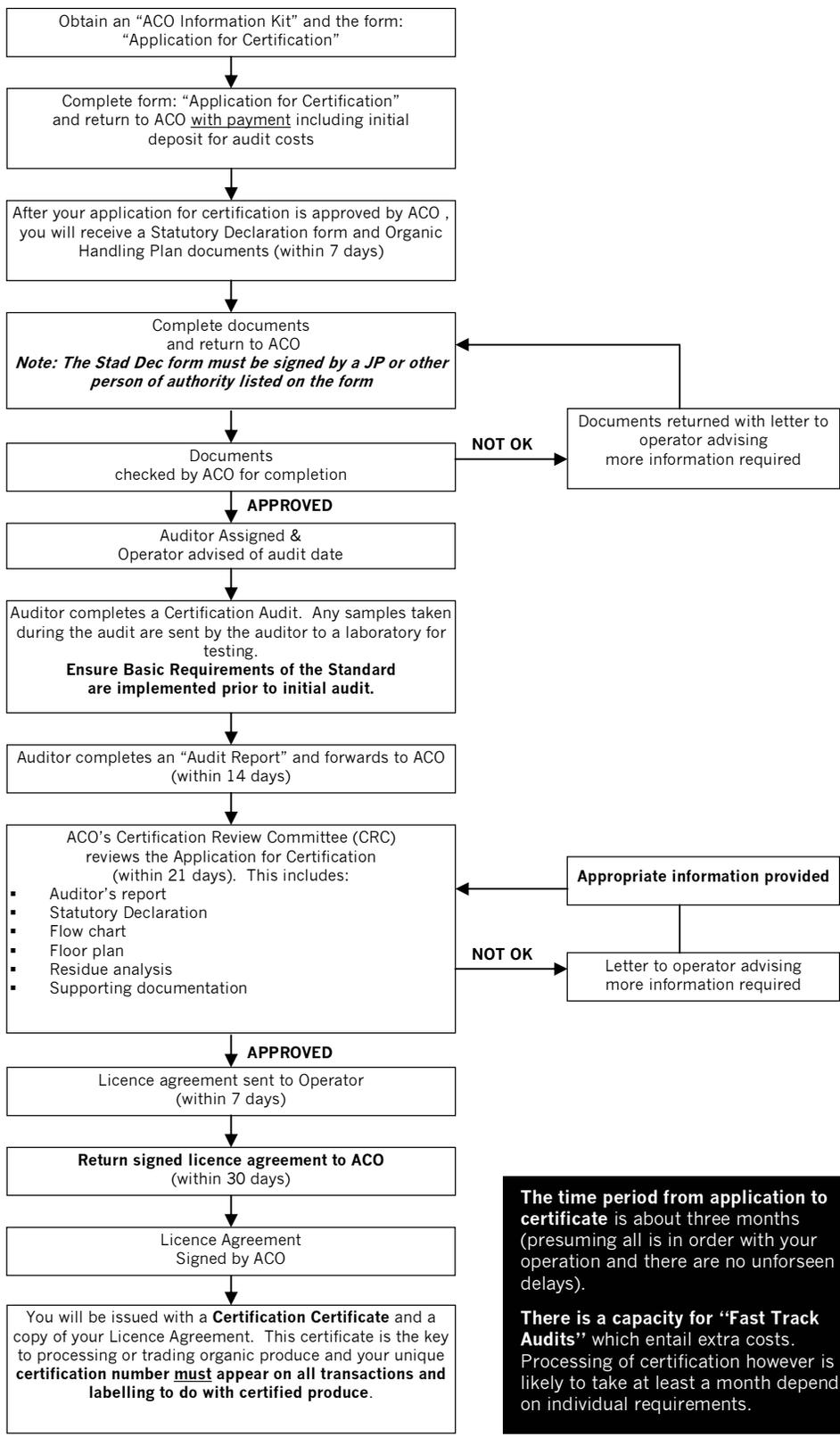
CERTIFICATION FLOWCHART: Primary Producers



Primary producers must be under an accredited organic certification system for a minimum period of 12 months prior to receiving their first certification level.

This flow chart shows the process of application for certification, through the Pre-Certification period to Certification.

**From application to certificate will take a minimum of 12 months** providing everything is in order with your operation including all required documents, and there are no unforeseen delays.



**The time period from application to certificate** is about three months (presuming all is in order with your operation and there are no unforeseen delays).

**There is a capacity for "Fast Track Audits"** which entail extra costs. Processing of certification however is still likely to take at least a month depending on individual requirements.

## 3.2. Maintaining Certification

- 3.2.1. Note that ACO reserves the right to refuse certification to operators at any time, where such certification is deemed to detract from the aims or principles of organic production and this Standard. To maintain certification, the operator shall at a minimum commit and allow all resources and personnel to achieve the following:
- Annual audit carried out by an auditor assigned from the Certification Office (CO) upon all land units managed by the certified operator – including non certified areas;
  - Random or special (unscheduled) audits (5% per annum) and tissue tests as required;
  - Audits conducted in concert with auditors from accreditation organizations of ACO (e.g. AQIS, USDA, IOAS, EU, Japan MAFF, etc)
  - Annual return (called the CCS – Certified Client Statement) and current OMP completed and lodged with the CO;
  - All fees paid to CO within required payment periods, including fees incurred where additional audits or testing is required following assessment of non conformances or corrective action requests;
  - Upkeep of full production records as required as well as annual updates of the Organic Management Plan, maps and related information, to be made available at the time of auditing and to the CO as requested;
  - Ensure compliance with this Standard, or immediate written notification to the CO of deviation from the Standard;
  - Ensure compliance with special conditions or directives as specified in licence agreements or stemming from correspondence with the CO;
  - Ensure ongoing acquaintance with the Standard, especially pertaining to modifications or updates as they occur;
  - Ensure compliance with regulatory requirements, including but not limited to health requirements for food quality and safety and APVMA (formerly NRA) requirements for crops and livestock, export orders, etc;
  - Effective management commitment and resource availability to ensure that the Organic Management Plan and this Standard are maintained with progressive improvement to the production system and the farm ecosystem including environmental impacts.

## 3.3. Non-Compliance and Corrective Action Requests

- 3.3.1. The raising of Corrective Action Requests (CARs) is a core component of the ACO certification program, and enables a simple, transparent means of communicating, and closing out, non complying aspects of the operation between the operator and the certification office. Non compliances to this Standard may take the form of one or more of the following:
- Operator failure to conform to the Standard;
  - Operator failure to conform to their licence agreement;
  - Operator failure to comply with directives from the Certification Office (CO) regarding (for example) food quality or safety issues or requests for further information to enable the CO to conduct assessment of conformance to this Standard;
  - Operator failure to verify effective management control deemed essential by the CO for ongoing conformance to the Standard;
  - Failure to comply with industry sector Standards or Statutory Regulations eg use of non APVMA treatments on land or stock.

- 3.3.2. Whilst being audited, or following review by the CO, operations or operators may receive notice of performance which might include feedback relating to certification maintenance. CARs can be generally categorised as follows:

### **Minor Non Conformity**

A problem detected which in the opinion of the auditor or CO will not or is unlikely to result in a significant non conformance with the Standard (including food safety issues), but which requires corrective action to ensure that the issue does not become a major non conformity leading to suspension of certification.

**Major Non Conformity**

A problem detected which in the opinion of the auditor or the CO is likely to, or has resulted in a breach of the Standard (including potential food safety problems or breakdown of effective organic management).

**Critical Non Conformity**

Where the system is clearly not operational and/or where the participant is clearly not committed to the maintenance of, or able to maintain, certification and the requirements as specified in this Standard.

**Certain non-compliances or non-conformities may be able to be closed out if addressed within 30 days of issue or at the next annual audit however other non-compliance or non-conformity with the Standard or licence agreement may lead to one or more of the following:**

**SUSPENSION**

- 3.3.3. If a certified operator is found to have not complied with requirements laid out in 3.2.1 to an extent deemed sufficient by the CO to jeopardise the reputation or integrity of ACO/BUD labelled products, such an operator's certification will be suspended.

Suspended clients shall not use the BUD logo, or make any reference to certification in labelling or marketing until such time that suspension is lifted by the CO. In most instances this shall also entail a recall or freezing of sales of all existing certified product until suspension is repealed.

**DE-CERTIFICATION**

- 3.3.4. De-certification includes the termination of current licence agreement/s with the CO and shall occur at such times where the operator cannot demonstrate compliance with requirements laid out in 3.2.1. For USDA NOP certification, de-certification decisions are ultimately decided by the USDA secretariat.
- 3.3.5. De-certification excludes the operator from using the BUD logo and making labelling or marketing reference to certified products or production. This shall also entail removal of all existing certified product from the market place which is not deemed to conform to this Standard.
- 3.3.6. In circumstances where the operator is unable to verify ability to conform to the Standard or where a serious and deliberate breach of the Standard has occurred, the CO shall not allow re-certification. Also taken into consideration shall be the client's past and current conformance to the requirements laid out in 3.2.1. In exceptional cases ACO shall pursue legal means in order to protect the BUD logo and other ACO certified operators – from unauthorised use of the BUD logo and ACO/BFA name by either ACO licensees or other parties.
- 3.3.7. In instances of low risk, or where non compliance is deemed a minor non conformity only, communication shall be requested from the operator, to outline confirmation of management commitment to rectifying the non conformance.
- 3.3.8. Lack of response by the operator to requests from the CO, or lack of commitment to management and resources to ensure ongoing compliance with the Standard shall lead immediately to suspension, followed by de-certification unless corrective actions are taken.

**APPEALS**

- 3.3.9. The certified operator at all times has the right of appeal of decisions by either the auditor, the CRC (Certification Review Committee) or CO. Such appeals will usually be at the expense of the operator, except where it is shown that fault lies with the CO.

**SANCTIONS**

- 3.3.10. In instances where prior transgressions or persistent or significant non conformances by a client have been sustained, ACO may deem, through review by the CRC that an ongoing sanction against a given client may be upheld, thereby refusing (re) certification to that client. This may also pertain to this client being prior certified by another certifier.
- 3.3.11. Sanctions shall be based on a case by case basis, shall allow for an appeal process by the client where requested, and shall be based, among other things, on aspects pertaining to consumer and industry perception of a given decision, the extent to which prior transgressions may have been advertent, and the extent to which prior transgressions or non conformances pertained to significant loss of integrity of the production of organic foods. This last sanction shall not override specific requirements for some markets (eg USDA NOP) in regard to further external assessment of the (de)certification decision (eg by USDA).

### 3.4. Documents, Records and Audit Trails

- 3.4.1. At a minimum to verify organic production practices, operators shall maintain and make available at any time to the Certification Office (CO) and auditors for ACO, the following documents:
1. Updated production unit map or facilities layout, showing present production activities, all significant site features, all neighbouring activities, and all relevant environmental aspects, including contamination potential's.
  2. An Organic Management Plan (OMP) (see definitions and 3.1.7, and refer to template from ACO office or website) outlining and projecting future production activities which pertain to the production unit and the operator's ongoing compliance with the Standard. The requirement for and the extent and nature of this plan shall be determined by the CO depending on the complexity and nature of the operation. There are specific additional OMP requirements for such markets as the US. Templates of these plans are available on the website. All operators shall at a minimum complete an annual questionnaire which shall be countersigned by an auditor of ACO at the time of audit.
    - a. Aspects of this OMP shall be based upon HACCP principles (see definitions) where relevant, which identify all significant hazards associated with maintaining certification, which outline procedures for reducing or eliminating such hazards, and monitoring procedures which ensure ongoing effective management and progressive management of the farming or organic handling management system. This shall be documented where more than one non-family operator is responsible for management and production control.
    - b. In the case of **livestock** production, a livestock feed, health and welfare program shall be included in the OMP and outline plans for ongoing conformance with this standard whilst maintaining optimum livestock health and welfare. At a minimum animal ID, animal breeding, animal movements and all treatments, including quarantining.
    - c. In regard to **primary production systems**, such an OMP (also referred to as the Organic Farm Plan) shall also outline production related aspects such as, but not limited to: soil and fertility management; pest disease and weed management, water management and conservation; sustainability and biodiversity aspects of the production system, and contamination management.
    - d. In the case of **partially certified farms**, full farm certification, over a period of less than 10 years, shall also be outlined. Exceptions to this shall only be granted by the CO, following successful submission by the operator.
    - e. For **processing and handling** operations, the OMP (also referred to as the Organic Handling Plan) may be incorporated into existing plans (such as food safety) or other handling manuals, but must clearly define how organic products are to be handled, stored and processed in a manner which ensures maintenance of integrity of the products and the prevention of co-mingling with non certified product. This includes nominated individuals responsible for the program and Approved Supplier Program maintenance for control of sourcing of organic ingredients.
  3. Records of production activities shall enable the tracing of all products arriving on, stored, and leaving the operation and all significant processes of modification to products or stock. Such records shall be maintained for a minimum of five years. Such records shall form the basis for verification of compliance with this Standard. See ACO Record Templates on website.
- 3.4.2. The operator shall put in place procedures and operations which shall establish full control of certified products and stock on farm, in storage and transport and which shall enable the traceability of all batches or consignments of certified materials or stock to the point of sale. Such traceability shall enable the operator to enact a product recall from the market place at any time for a specified group of products or stock produced or sold on any day or production run.
- 3.4.3. The ACO Transaction Certificate (a document for the sale and movement of certified products) or its equivalent (may be a comprehensive invoice with details as below) supplied by the certified operator, shall be completed for sale and movement of certified product – where the purchasing party requires certified product (for resale or processing). This shall include clear statements regarding the certification

- status/level and certification number of the product/s, linking them to an identifiable batch or related code number. For export of organic products from Australia, an Organic Produce Certificate for Export must be completed. This is available from the CO and is a legal requirement for export of organic products.
- 3.4.4. Traceability procedures shall include consideration of aspects such as packaging, labelling and transport as well as all relevant documentation which may accompany certified products/stock, so as to maintain the authenticity of the certified product through to the end consumer.
- 3.4.5. Livestock operations shall be able to trace the history of all stock which are certified, and shall be clearly differentiated and identifiable from stock that do not conform with this Standard. This may include boluses, tail or other tags, and at a minimum shall have full documentation for each authorised movement of stock on and off the property. See CO for copies of books.
- 3.4.6. Where more than one person is responsible for control of certified products on or in a certified operation, documented procedures shall be put in place outlining steps required to maintain the authenticity and traceability of certified products and/or stock.
- 3.4.7. Certified Processors, Producers and Handlers are required to take appropriate action on complaints related to the compliance with certification requirements and to keep a record of the corrective action taken.

### 3.5. Labelling, Packaging, Marketing Material and Ingredient Specifications

- 3.5.1. All products, raw or processed, marketed as certified by ACO shall include the following details on all packaging bound for retail sale (unless otherwise overridden or requiring additional criteria by other market requirements – eg USDA NOP, Japan JAS, UK Soil Association, etc):
- Appropriate reference to certification (eg Organic, Organic In Conversion, etc);
  - Certification number of operator;
  - ACO (or BFA\*) name and/or Bud logo;
  - Name and address and/or registered mark of the certified operator or owner of the product and/or label.

Exceptions to labelling requirements (eg domestic private label within Australia) shall require confirmation in writing by the CO as acceptable prior to market release. ACO maintains a file of existing formats for logo and name use. Variations beyond these formats shall require specific approval prior to use. See Annex VI for an outline of logo types.

\*NB: Due to changes to the regulatory name from BFA to ACO for organic food and fibre products, some regulations (eg JAS) still require reference to the original mark with BFA. Onus is on the operator to ensure compliance to export market requirements. In most instances ACO is now the listed regulator (eg USDA NOP, IFOAM, AQIS, EU, and Switzerland).

Note also for Allowed Inputs and Approved Products, these are regulated under BFA and to this extent may not make reference to ACO but BFA only as the regulator.

- 3.5.2. Labelling utilising the ACO or BFA name and/or BUD logo, certification numbers pertaining to ACO or reference to ACO and/or certification with ACO or registration with BFA shall be subject to prior Certification Office (CO) assessment and approval prior to market release. Failure to receive written confirmation from the CO as to the acceptability of such labels may result in mandatory removal of all product from the market place which is deemed to not comply with this Standard or which fails to achieve approval of the CO. A copy of all labels bearing market reference to organic products shall be kept on file by ACO and it is the responsibility of the operator to ensure that all current labels are sent to and maintained on file by ACO.
- 3.5.3. In the case of bulk carrying, a transport declaration shall accompany all consignments and wherever feasible shall include all other measures such as labelling, signage and supply of certificate, to ensure the authenticity and control of the certified product is maintained.

- 3.5.4. The label for in conversion products shall be clearly distinguishable from the label for organic products. The wording 'in conversion' should appear on the front label/packaging at the same size as the wording 'organic'. The ACO BUD logo for in conversion products is clearly distinguishable from the ACO BUD logo for certified organic products. See Annex VI for an outline of logo types.

### **Packaging**

- 3.5.5. Packaging used shall be designed to maintain the authenticity of the certified product and shall not include used disposable containers, except where allowed by law and where fully excluded from contact with certified product (unless dedicated to organic use only). Packaging shall also be selected by the operator with regard to the environmental impacts of the production, consumption and use of such packaging, and exclude ozone depleting substances.
- 3.5.6. Packaging chosen shall assist in the protection of certified product from contamination. Packaging shall not contain or be constituted of substances which may compromise the authenticity of the certified product including prevention from reacting with certified product. Use of tins shall be limited, and not used where leaching into certified product is possible. Plastics may be used only where leaching into certified product is not possible. Lead and aluminium are prohibited in packaging when in contact with certified materials. Vacuum packing is permitted, along with the use of acceptable food grade gases where contamination risk is not posed to end product.
- 3.5.7. Packaging materials, and storage containers, or bins that contain a synthetic fungicide, preservative or fumigant are prohibited.

### **Marketing Claims and Labels**

- 3.5.8. Whilst certified organic products shall be GMO free, claims as to the GE or GMO free status of organic products for sale shall conform to relevant regulatory requirements for labelling, and shall be regularly tested by the operator where relevant to verify claims.
- 3.5.9. No claims may be made as to the chemical residue-free status of organic products for sale, except where this has been independently technically verified by the operator.
- 3.5.10. For processed food products, where a minimum of 100% mass/mass of all ingredients (excluding water and salt) come from certified organic sources, reference may be made to "100% organic" on the label.
- 3.5.11. For processed food products, where a minimum of 95% mass/mass of all ingredients (excluding water and salt) come from certified organic sources, and where all other materials are allowed under this Standard for use in certified processed product, reference may be made to "Certified Organic" on the label.
- 3.5.12. For processed food products, ingredients of non organic origin are only allowed where unavailable in the certified form, where specified under this standard as allowed and with non GMO and non irradiated status. See Standard 3.5.16 below. Ranking in order of concentration of ingredients is required for all ingredients where less than 95% of product is of certified origin.
- 3.5.13. Where less than 95% but not less than 70% mass/mass of all ingredients (excluding water and salt) are of certified organic origin, and where all other materials are allowed under this Standard for use in certified processed product, reference may be made to "Certified Organic Ingredients" in the ingredients listing with reference to percentages of ingredients. Such products may not be described as "Organic". Products with <70% mass/mass of certified organic ingredients may not make reference on labelling to certification status or organic content.
- 3.5.14. Onus is on the operator to ensure that all legal and other label requirements are met in regard to labelling and packaging.
- 3.5.15. Ingredients shall be listed in the order of concentration in the end product clearly noting and differentiating certified ingredients from non certified ingredients. All additives shall be listed with their full name.

### Ingredients and Source of Ingredients

- 3.5.16. Certified ingredients shall be sourced, in preference to uncertified ingredients, wherever available in commercial quantities. The aim of the operator at all times shall be to source 100% of ingredients from certified organic sources. Onus is on the certified operator to regularly (documented at least annually) verify the availability of supply of certified organic inputs that may be available in the quantities and of the quality required for the product in question.
- 3.5.17. All non certified organic ingredients shall be managed by the operator to ensure compliance to the ingredient requirements for non certified products. This shall include management of the risk of GMO status, non irradiated status, etc. In such instances, ingredients and processing aids shall be traced back one step in the biological chain to the direct source organism (see definitions) from which they are produced to verify that they are not derived from GMOs.
- 3.5.18. Multiple ingredient products shall be constituted of a minimum of 95% certified organic ingredients, and not certified in conversion to organic ingredients, in order to be described as a "Certified Organic" product on the labelling. The remaining (uncertified) ingredients shall only be approved for inclusion where they are listed in this Standard as permitted for such use (see Annex III).
- 3.5.19. Ingredients shall not be mixed in parallel. This is defined as ingredients of the same material of both certified and uncertified origin.
- 3.5.20. Onus is on the certified operator, in sourcing certified products that such products conform to the specifications of the market being aimed for. This includes the requirement for the certifier of the certified ingredient to be accredited for the market in question (eg Australian, US, Japan etc) and in some instances for the operator supplying ingredients to an end product to specifically be certified for that market (eg USDA NOP, Japan). See Section 3.8.
- 3.5.21. In regard to IFOAM certification requirements, the addition of up to 20% of the total ingredients may arise from non-IFOAM accredited certified sources, with no individual (non IFOAM) ingredient making up more than 10% of total ingredients.
- 3.5.22. Imported products and/or ingredients shall conform to all requirements for importing of products – see Section 8. This includes operator verification that no prohibited substances have been used in the export/import process (eg fumigants). An audit trail of documentation shall be required of operators using imported product to verify no use of prohibited substances throughout the importation process. This may include, where risks exist, testing of product to ensure compliance to Australian requirements and non presence of otherwise prohibited substances such as synthetic chemicals, GMOs, etc.

### 3.6. Parallel Production

- 3.6.1. Parallel production is deemed to occur where similar certified and uncertified products, or products of both certified organic and certified in conversion to organic status, are produced during the same season in the same production unit. Where these cannot be distinguished by visual appearance and varietal difference, this shall not be allowed, except as outlined below.
- 3.6.2. In exceptional circumstances, such as buffer zone requirements, initial and partial certification, in cases where it is verified that the operation shall be more sustainable in the short term, or other interim circumstances allowed by the Certification Office (CO), parallel production may be allowed based upon acceptable physical segregation of certified and non certified areas, acceptable harvest and handling schedules, records and management control being in place which achieve and verify segregation and audit trail integrity of both certified and uncertified product. The Organic Farm Plan (OMP) shall outline a clear plan of progression towards full certification of the (parallel production) operation through time, with an expectation that ongoing maintenance of Organic certification shall be contingent on achieving this by year 3 of certification. Exceptions to this shall be determined by the CO and shall require special exemption based upon assessment of sustainability parameters and the commitment of the operator to organic principles across the operation.
- 3.6.3. Such circumstances as 3.6.2 will in most instances require additional monitoring and auditing by the CO at the certified operator's expense – including ACO auditor assessment of non certified areas or facilities at critical times such as harvest, packing or processing. Production estimates shall be clearly documented for both certified and non certified products and declared annually to the CO via the Annual Report.

- 3.6.4. The production of GMO variety crops or stock shall not be allowed as a production activity on partially certified farm units.
- 3.6.5. In the case of livestock, uncertified stock may mingle with certified stock on condition of clear identification and documentation and where relevant and required, segregation. Stock not certified may be fed non certified organic feed, but not prohibited treatments (which include growth hormones), without affecting the certification status of the land that they have access to.
- 3.6.6. Processing/preparation and other marketing and handling operations may be certified for parallel production where effective procedures are in place to ensure product authenticity and segregation are maintained – including separation in time or space between certified and non certified products – see Section 6 and 8.

## **3.7. Types of certification**

### **3.7.1. PRIMARY PRODUCTION SYSTEMS – CROPPING AND HORTICULTURE**

Land based primary production may be certified following timelines as outlined in Section 3.1. Requirements for production for land based sectors are outlined in Section 4. Forestry and wild harvest as well as international projects are outlined in Section 7.

### **3.7.2. PRIMARY PRODUCTION SYSTEMS – LIVESTOCK**

Livestock may be certified under provisions outlined in Section 5 of this Standard.

Livestock may only have access to lands managed in conformance with this Standard as outlined in Section 4 of this Standard and processed in accord with Section 6.

### **3.7.3. PROCESSING, PREPARATION AND MARKETING OPERATIONS**

Where modification or repackaging is made to certified primary product or other certified product, certification of operators and facilities is required to maintain certification of such product.

Such operations may include but are not limited to, sectors listed in Section 6. Section 6.1 outlines basic requirements for all sectors involved in processing. Section 8 outlines requirements for wholesaling and handling operations – including transport and storage and retail.

### **3.7.4. NON-LAND BASED PRODUCTION SYSTEMS**

Production systems not based upon land may be certified where outlined under the provisions of this Standard – e.g. Section 7 – Honey; Mushrooms; Nursery Production; Sprouts; Aquaculture.

Certification may be granted without requiring a full 12 months of pre-certification where a valid OMP is in place, and where all quality and management criteria of the operation have been achieved.

Where such operations have not yet achieved verified compliance with this Standard, further audits shall be required prior to certification.

### **3.7.5. GROWER GROUP CERTIFICATION**

International (outside of Australia) projects and schemes (outlined in Section 7.8) where there is an Internal Control System in operation.

### **3.7.6. APPROVED PRODUCTS AND ALLOWED INPUTS**

Products of non agricultural origin (eg rock fertilisers, salt, water) as well as agriculturally based input products whose active ingredients conform with this Standard (eg natural oils) may achieve registration status as an “AI” (Allowed Input) or “AP” (Approved Product) with either A (Allowed) or R (Restricted) listing. Section 9 outlines criteria for assessment. Such operators obtain a BFA, rather than an ACO, certificate noting registration. See Annex VI for outline of logo use specifications.

### 3.8. Certification Transference/Recognition Arrangements

ACO certified operators are sometimes confronted with the need to utilise products certified by other certifiers. In such instances, the following applies:

- 3.8.1. Certified Organic produce, other than ACO produce, shall be allowed for use within ACO certified end product where such certified produce is certified by a certifier accredited to an equivalent system as the ACO, as outlined below.
- 3.8.2. Such recognised certifiers shall only be utilised following application to ACO for confirmation of equivalence. Such an equivalence list is maintained by the ACO office. The equivalence list shall also be maintained by the certified operator and documented in the Organic Management Plan (OMP) where non ACO certified product is also used within the certified operation.
- 3.8.3. ACO recognises IFOAM as a competent authority for accreditation of certifiers for the IFOAM stream of certification. Certifiers and the respective products certified under such schemes, where IFOAM accreditation has been achieved, and where equivalence has been assessed and confirmed by ACO, are recognised as equivalent for transference. Please note however that additional importing country criteria or other regulatory criteria may override this recognition for given products or situations (eg USDA NOP, JAS, etc). Certified products not certified with recognised certifiers (IFOAM accredited certifiers or ISO 65 certifiers – this may be changed in accordance with IFOAM criteria) shall not be used in ACO certified products under the IFOAM stream/program. In limited instances ACO may allow either:
  - a. one off recognition of product following relevant fees paid, acceptable review of all relevant reports, review decisions and documents of an individual operator and product;
  - b. potential for dual certification of operators or products as required. Such outcomes require formal application to the ACO office, and payment of the relevant processing fees prior to acceptance. This bestows ACO certification on products and operations where prior reports and documents from another accredited certifier are deemed acceptable and equivalent to ACO and verify conformance to the Standard. ACO will also carry out an on-site audit of the operation prior to approving certification where this has not occurred from an acceptable third party within the prior 8 months
- 3.8.4. An ingredient that constitutes less than 10% of the total weight of the product may be accepted on the basis of being certified by a certification body that has been approved by its government or has been accredited by a national accreditation body for the scope of organic certification. The total of all ingredients accepted on this basis shall not exceed 20% of the total weight of the product.
- 3.8.5. In regard to existing operators certified by agencies other than ACO who may require ACO certification, certification may be sought and achieved following application. Prior certification shall be taken into consideration where such certification is deemed equivalent and/or where the audit and certification system is deemed equivalent to ACO.
- 3.8.6. In regard to **other international regulations** – such as the USDA NOP, the Japanese Agricultural Standard (JAS) Organic, or the EEC 2092/91 Council Regulation – such regulations must be followed where access of products to those markets is required. In the case of the USDA NOP stream of certification this shall override all other criteria – unless otherwise prevented by law (eg under Australian Export Orders for products arising from Australia). Exact conformance shall be required to the USDA NOP for access to that market. Operators wishing to have access to this market shall require special application to the ACO office to obtain a USDA NOP organic certificate. All operators wishing to utilise certified product for the USDA NOP market shall require USDA NOP specific organic certificates from all suppliers, which shall only occur after audit and or further assessment that each operator is specifically complying with this market's requirements.

### **3.9. Deferral of Certification**

- 3.9.1. In cases of need for deferral of certification (referred to as Voluntary Deferral) the following shall apply. Such cases may include loss of production due to fire, drought or other natural disaster or extenuating circumstances.
- 3.9.2. The option for deferral of certification is only available to operators with primary production systems (cropping, horticulture, livestock)
- 3.9.3. Deferral shall only be granted following written application by the operator to the CO and written acceptance by the CO.
- 3.9.4. The minimum time period for Voluntary Deferral is 12 months. The maximum time period for Voluntary Deferral is 24 months (2 years).
- 3.9.5. Through the period of deferral, verified conformance to the Standard is required, with no sales of certified product throughout this period.
- 3.9.6. Auditing and review by ACO shall be required prior to reactivating certification.



# STANDARDS REQUIREMENTS: GENERAL: PRIMARY PRODUCTION

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## 4. GENERAL PRODUCTION STANDARD – PRIMARY PRODUCTION

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The sections of the Standard outlined below should be read in conjunction with relevant industry sector sections of this Standard, including the Processing/Preparation section where appropriate.

The sections below outline the basic minimum production management requirements for primary producers to attain and maintain certification.

### ORGANIC PRODUCTION PRINCIPLES

Organic production systems are guided by the following principles and outcomes:

- Production of naturally safe, high quality, nutritionally vital foods.
- Optimal production output, with rational and minimised use of inputs
- Use of recycling and biological cycles within the farming system
- Biodiversity protection and enhancement within the farm and surrounding areas
- Regeneration of lands and soils and best environmental practice of farming activities

### 4.1. Soil Fertility and Health Management

- 4.1.1. Conservation and recycling of nutrients is a major feature of any organic farming system. Sufficient organic material shall be returned to the soil by the recycling, regeneration and addition of organic materials and nutrients to increase, or at least maintain, the humus content. The use of materials listed in Annex I as A (allowed) or R (restricted) shall be regarded as supplements to recycling and not as replacements in considering the long term fertility needs of the farming system.
- 4.1.2. The majority of nutrients shall be taken up by plants via humus colloids in the soil, rather than directly via water soluble salts. Plants shall therefore be supported by a viable and complex soil ecosystem which has an observable and sustainable food web with minimal reliance upon external inputs on a longer term basis.
- 4.1.3. The fertility, biological activity and organic matter of the soil must be maintained or increased by any combination of the following methods:
- a. Cultivation of legumes, green manures or perennial deep-rooting plants as part of an appropriate rotation program to ensure a healthy, diverse organic ecosystem on farm;
  - b. Sheet composting using animal manures, followed by two green manure crops and incorporation before the area is used for certified crops (note additional USDA NOP criteria);
  - c. Fully composted organic matter from selected sources allowable under this Standard;
  - d. The application of biodynamic preparations and methods;
  - e. Well timed and minimal tillage techniques;
  - f. Maintenance and management of livestock.
  - g. Balancing of soil nutrients and micro nutrients and encouragement of microbial life for production of humus.
- 4.1.4. For perennial crops where a rotation is not possible, a diverse eco-system should be created and maintained by such means as companion planting, under-sowing and mixed cropping, and by creating wildlife refuges.
- 4.1.5. Other organic or mineral fertilisers, as listed in Annex I as Allowed (A) or Restricted (R), may be applied only when adequate nutrition of the crop or soil conditioning are not possible by the methods set out above. The OMP shall outline and the farm shall progress towards a state of less reliance on external inputs over time. Note should be

- made of restrictions from some markets – eg UK Soil Association – in regard to prohibition on use of animal products such as blood and bone as fertiliser on cropping or livestock areas. Onus is on the operator to ensure compliance to other market requirements.
- 4.1.6. The following are prohibited for use in organic systems: Chilean nitrate, and all synthetic nitrogenous fertilisers including urea. Note that for USDA NOP certification, in relation to Chilean Nitrate, the operator must refer to the USDA NOP Standard.
  - 4.1.7. Foliar feeding is restricted as a practice in that it is permissible but shall not fully take the place of effective and proper soil conditioning and fertility maintenance.
  - 4.1.8. Ongoing soil or tissue tests, or other effective means of assessing fertility, should be carried out by the operator to ascertain sustainability and to determine future needs for fertility management. Farming systems wishing to progress to full certification shall require soil testing of nutrients and OM to verify that the farming system is moving towards effective organic function and outcomes.
  - 4.1.9. Optimal soil outcomes should include healthy and prolific soil micro and meso-fauna (eg from bacteria to worms), high OM levels, optimal physical structure and tilth, and a chemical balance of nutrients to ensure that overall availability of key nutrients is assured and maintained.
  - 4.1.10. Soil erosion abatement and reparation shall be a management priority of the operator. Where these are of noted concern, plans and actions shall be outlined in the OMP.
  - 4.1.11. Soil salinity, acidity and sodicity levels, where relevant, shall be actively managed so as to prevent long term soil degradation. Management priority shall be such as to include reparation and regeneration of lands so affected. Details of plans and actions shall be outlined in the OMP where such issues outlined are noted as of concern.
  - 4.1.12. Soil cover should comprise residues, crops etc and shall for the majority of the season on the majority of the property (as a guide >70%) remain covered to prevent soil degradation and to enhance biological activity.

## 4.2. Brought-in Materials, Stock and Equipment

- 4.2.1. Onus is on the operator to ensure that all brought-in materials, machinery or contracted equipment are free from contamination and contaminating agents. This may include requirements from the Certification Office (CO) to conduct residue testing on any input materials deemed to pose a risk of contamination. Equipment clean down and selection of appropriate contractors who are aware of certification requirements is essential to ensure certification of the operation is not jeopardised.
- 4.2.2. The CO reserves the right to refuse the sourcing of some materials based upon their risk status or non-conformance with this Standard.
- 4.2.3. The operator shall receive written acceptance from the CO for the initial use of **brought in materials** that are not listed in relevant Annexes, as A or R, or not registered by the BFA as allowed for use in a given sector, prior to use on or in the production unit. Failure to do this may result in loss of certification or delay in certification, depending on the circumstances and impacts of such practices. (See 3.3)
- 4.2.4. For synthetic structure coverings, mulches, fleeces, insect netting and silage wrapping, only products based on polyethylene and polypropylene or other polycarbonates are permitted. These must be removed from the soil after use and must not be burned on certified areas of land. Note polyvinylchloride based products are not permitted for use on certified land.
- 4.2.5. **Weed matting** is allowed but must not be incorporated into the soil, unless fully natural and degradable. Where weed matting is used, soil biology must be protected and/or enhanced by such practice. Plastics shall be removed at the end of the production season or end of use. Sheet plastic mulching may be used for certain composting activities listed in Section 4.3 and in cases of soil solarisation practices. Other uses require written confirmation from the CO for permission prior to use and shall be permitted in restricted instances only.
- 4.2.6. All **manures**, from both certified and uncertified sources, shall be composted, as per Section 4.3, prior to use on the production unit. Exceptions to this are where manure arises from natural stocking practices, in restricted instances – outlined in 4.1.3(b) – or where processes have been applied to achieve a similar outcome as outlined in Section 4.3.4.

- 4.2.7. As a guide 20T/Ha per annum is an acceptable composted **manure input** level. On a sustained basis over the longer term (10+ years), the volume of manure should be added based upon what would be expected to be supplied if the same farm area was stocked with animals. As a guide, where animals are stocked, stocking rates over the long term should not add more than 170kg of N per Hectare per Annum. Note at all times that issues of end product food safety and farm ecological balance shall guide decision making in relation to manure use and handling.
- 4.2.8. Certified and uncertified natural **mulching materials** applied to the soil surface do not require composting prior to use. In crop production where mulches are allowed direct contact with the edible plant material, chemical residue testing of the mulching materials may be required.
- 4.2.9. **Biosolids** arising from multi-source urban areas are prohibited from use on organically certified lands. Exceptions to this rule may be in some cases of non-food commodity production such as timber and fibre products. Such areas of land so treated may not be used for organic food crop production, nor shall there be potential for leaching of contaminating agents onto such food crop production areas. Ongoing monitoring shall verify that residue levels within the soils remain within acceptable limits and are proven not to accumulate in such a way as to pose environmental risk.
- 4.2.10. Sewerage sludge and related products are prohibited from use in ACO certified operations.
- 4.2.11. **Seeds and propagative material** shall be sourced from plants grown in accordance with the provisions of this Standard. Where an operator can demonstrate to the CO that material satisfying the above requirements is not available in sufficient quantities, the certifying organisation may allow:
- in the first instance the use of untreated seeds or propagative material;
  - or where this is verified and documented by the operator to be unavailable in restricted instances, the use of seeds and propagative material treated with substances other than those listed in Annex I as A or R where mandated by state regulations and where contamination risk to soil is minimised.
- Permission in writing must be obtained from the CO prior to use of all non organic seeds and propagative materials
- In relation to the above, as a condition for permission to use non organic seed or propagative materials, the operator shall document in the OMP and review non availability on a seasonal/yearly basis to ensure ongoing approval for use.
- Note some country or regulatory requirements may permit only organically produced seed and propagative material. Onus is on operator to ensure compliance to additional market requirements.
- Note that from 1<sup>st</sup> June 2008, with revision of industry circumstances at this point, seed and propagative material shall be required to be sourced from organic sources only.
- 4.2.12. **GMO** products and GE processes are prohibited in all aspects of organic production systems and products. This includes prohibition of GE seeds and propagative material. "Genetic pollution" may be a reality in some instances, and control of this contamination source shall require similar means of risk management as for other contaminants. Contamination detection in a given crop or product will lead to decertification of that given crop or product.
- 4.2.13. In the case of **brought in non-certified organic livestock** from another property, disease free status must be ascertained and verified prior to access to certified land areas. Consideration in relation to diseases includes but is not limited to OJD, FMD, BSE etc. Brought in stock shall also require assessment as to their origin and transit prior to arrival on certified properties. For stock crossing tick boundaries where mandatory chemical treatment is required, such stock shall not maintain certification. All non compliant and/or uncertified stock shall require quarantining as outlined in Section 5.

### 4.3. Composts

- 4.3.1. Composting may take the form of either aerobic or anaerobic techniques and is recommended within the organic production system as an effective means of cycling and binding nutrients within an organic system, while eliminating or reducing hazardous agents such as potentially lethal microbes and weed seeds. Note additional criteria required for USDA NOP Standard.

- 4.3.2. Where feasible, heaps shall be turned to enable heat transmission to all parts of the heap. Where not feasible, heap management shall conform to Standard 4.3.3.
- 4.3.3. Where mechanical devices are not available to turn heaps for aerobic purposes, other effective composting means shall be employed, such as mulch or soil covers of a minimum of 4 inches under an anaerobic system.
- 4.3.4. Heaps should reach a minimum of 55 degrees Celsius for a minimum of three or more continuous days in a static aerated pile system, or 15 days using a windrow system, during which the materials should be turned a minimum of 5 times. Practices shall be such as to enable destruction of harmful microbes, disease pathogens and weed seeds, and to assist in the breakdown of potential residual chemicals. The process of composting shall be maintained for a sufficient interval to ensure effective and complete composting has occurred throughout the heap. This may take between 3 weeks to 6 months depending on technique and intended outcome, but shall be such as to both satisfy nutrient binding outcomes within the compost medium whilst also ensuring food safety risks are managed and do not pose a risk to end certified produce. Note that the minimum composting period for the Australian Standard for Composts (AS 4454-2003) is 6 weeks.
- 4.3.5. As a guideline, the temperature should remain between 50-55 degrees Celsius for as long as the process requires. Ideally heaps should be a minimum of 1 metre cubed to maintain temperature, well aired, with high water content, but not saturated.
- 4.3.6. Application of manures, animal products and slurries shall be such as to prevent food safety risks arising for edible crops. Notwithstanding 4.2.5, application of uncomposted slurries or manures shall include restriction of incorporation of such products into the soil not less than 120 days prior to harvest of crops whose edible portion is in contact with the soil surface and not less than 90 days where the edible portion does not have direct contact with the soil surface.
- 4.3.7. Compost heaps shall not be allowed to become water logged, nor to dry out to such an extent that biological activity is discouraged.
- 4.3.8. No leaching of nutrients from the heap shall be allowed to occur which may pose environmental impacts to other areas on or off the farm unit.
- 4.3.9. Feedstock shall be selected so as not to pose contamination risk on-farm. This includes prevention of GMO feedstock into compost heaps on-farm. Note also that at all times, that food safety of end food products shall be a core consideration for all compost use.

**4.3a Table: Optimal guideline specifications for finished (ready to use) compost.**

**NOTE: GUIDELINE ONLY**

PROPERTY	TEST OR RANGE
Water content	Needs to be as low as possible without too much dust (ideally water < 30%)
Humus nutrient exchange value	Cation Exchange Capacity Gillman method
Nitrogen Availability	Subtract ammonia plus nitrate (available N) from total N to indicate slow-release value
Phosphorus Availability	As above. Test for bicarbonate (Colwell) or Olsen P for available P, depending on pH of soil to be added to.
Calcium Availability	Use test for available calcium in gypsum.
Biologically active carbon	Walkley-Black organic carbon
Potassium	Use total or available. If total, assume >80% available
Electrical Conductivity	If test for K is relatively low, check for sodium. (If applied as slurry, high EC can burn foliage.)

**4.3.10. Compost Process Guidelines**

- 4.3.10.1. Physical turning combined with appropriate moisture application shall ensure over the period of time of composting that the compost process effectively completes its cycle, ultimately aiming for the specifications in table – above.
- 4.3.10.2. Ingredients should be chosen based upon the aim of binding all nutrients within the finished compost media.

4.3.10.3. Finished compost composition should be chosen based upon requirements of farm soil type – eg bacterial or fungal predominance, compost fertility profile, etc.

4.3.11. **Restrictions on compost inputs**

4.3.11.1. Feedstock chosen shall ideally be from certified organic sources and/or on-farm sources. Where sources are sought from off farm, these shall be verified by the operator to be free of levels of contaminants which may pose a longer term contamination risk to the farming operation and the production of clean foods. See table 4.8a.

4.3.11.2. For lands where ruminants are managed, restriction on feedstock for composts includes prohibition of bi-products of the meat industry, which may contain bovine or ovine products.

4.3.11.3. All inputs shall comply with the allowances for and prohibitions of inputs noted in this Standard.

4.3.12. **Slurries, Liquid Teas and Worm Castings**

4.3.12.1. Use of slurries on certified livestock operations, where the slurry arises specifically from such operations, shall comply with the specifications below.

4.3.12.2. Use of slurries on operations where such slurry does not arise from the certified operation shall require permission in writing from the Certification Office (CO) prior to use, and shall as a guide comply at a minimum with specifications below.

4.3.12.3. Digestion of slurries must occur prior to application to certified farm lands, unless followed by green manure cropping as specified in 4.1.3(b). See also 4.3.6.

4.3.12.4. Actions prior to application shall ensure that food safety and stock health risks are managed and eliminated.

4.3.12.5. Where feed stock and/or style of digestion is known not to eliminate pathogens, application of products – slurries, teas or castings – shall be limited to low risk crops – eg not edible parts of plants.

4.3.12.6. Application of liquid composts, teas and other liquid based nutrients shall take into consideration the impact on soil biota, on soil nutrient balance, and on maintaining a healthy biologically balanced soil profile as well as food safety issues.

4.3.12.7. Application of liquids shall not be aimed solely at adding soluble nutrients for immediate uptake of pastures and plants, but rather shall be aimed at longer term soil building and enhancement.

4.3.12.8. Application of liquid nutrients shall at all times take into consideration potential for on or off farm contamination and run off. The operator shall take steps to ensure that minimal to no leaching of nutrients takes place from the farm unit.

4.3.12.9. Such consideration shall include application method, timing and type of products applied.

## 4.4. Water Management and Ecology

4.4.1. Measures shall be taken to enhance the efficiency of water use on farm and to enhance the ecological aspects of the farming operation in respect of water features. Such practices shall include one or more of the following:

- a. Enhancement of water holding capacity of the soil via progressive humus build up;
- b. Permanent sod and mulching practices for the containment of moisture;
- c. Selection of appropriate irrigation equipment;
- d. Water catchment systems designed to maximise on-farm water use;
- e. Monitoring using tensiometers, evaporation figures, etc.

4.4.2. Water leaving the farm unit shall be at least the same quality as that being applied or used and shall not lead to the pollution or environmental degradation of surrounding areas.

- 4.4.3. Water and waterways shall be managed, and where relevant monitored, by the operator in the light of the broader ecology of the farming system, with a management focus on ensuring the protection, development and enhancement of natural water features (such as wetlands, catchment areas, streams and rivers) and a focus on healthy water management of contained waters such as dams and ring tanks.

#### **Food Safety and Water**

- 4.4.4. Water used for irrigation shall not pose food safety risks arising from toxic substances. Where concern is noted in regard to safety or quality issues, a monitoring and testing program may be required by the operator which verifies ongoing safety of supply.
- 4.4.5. Onus is on the operator to ensure ongoing safety and quality of all irrigation waters used.
- 4.4.6. Water used in packing sheds or processing where in contact with certified product shall comply with Section 6.1.13- 6.1.17. Refer also to Section 4.6.
- 4.4.7. Irrigation water used shall comply at a minimum with standard irrigation water quality criteria. Water arising from conventional production systems is restricted for use and shall not be permitted where such water contains contaminants which may affect the organic integrity of products or land.

#### **Recycling and reclaiming of waters**

- 4.4.8. Grey water or waste waters are prohibited from use on food crop production areas, or in cases where leaching may occur onto food crop production areas. Conditions for use are the same as for bio-solids listed in 4.2.9 above.
- 4.4.9. High grade (tertiary) treated reclaimed or recycled non point source water (from urban or industrial regions) known as reclaimed water, may only be used in restricted instances, and not where contact with edible portions of the plant is possible. Other market restrictions or regulations may prevent this allowance.
- 4.4.10. Reclaimed waters may only be utilised after entering a waterway system where there is natural flowing water, in such a way as to re-integrate these waters into the natural environment and to be filtered prior to use on the organic farming unit such that heavy metals, bacterial and viral agents and synthetic hormones, hormone mimicking compounds and their breakdown components, and related contaminants of concern are diluted so as not to pose a contamination problem or a risk of loss of integrity of the organic farming system.
- 4.4.11. Reclaimed waters shall be continuously monitored to verify that no contaminating residues are allowed to accumulate in the soil and surrounding environment. The Certification Office (CO) reserves the right to refuse the use of any water sources, based upon independent technical assessment of the level of risk associated with such use and the degree of scientific knowledge available to enable precautionary principles of decision making.
- 4.4.12. Reclaimed waters shall be verified by the operator on ongoing basis to meet irrigation water quality standards and to be free of contaminants likely to affect the integrity of the organic farming system.

### **4.5. Pest, Disease and Weed Management**

- 4.5.1. Organic production systems shall display a set of positive processes or mechanisms capable of accounting for management of significant diseases, pests and weeds under normal circumstances. Pest and disease management should be fundamentally aimed at health management of soils, crops and livestock. Hence the production system shall exhibit resilient characteristics such that under normal circumstances pests, diseases and weeds are able to be managed based upon practices outlined in Standard 4.1.3 a – g.
- 4.5.2. The use of substances shall not take the place of management practices that aim at prevention for the control of pests and diseases. Only in cases of imminent or serious threat to crops, and where the measures listed below in 4.5.3 a – j would not be effective, recourse may be had to products with active ingredients referred to in Annex I listed as A or R. Any formulated products used, which may contain more than just active ingredients listed in Annex I and II must first have been approved for use in writing to the operator by the CO prior to use. This approval includes valid certificate/s confirming registered status as an Allowed Input. Note that additional

- (international) market requirements may override allowance for otherwise permitted products or non active additives to those products.
- 4.5.3. Pest, disease and weeds shall be proactively managed by any combination of the following:
- a. Appropriate selection of genetic stock
  - b. Biological control agents and the protection of predator habitats
  - c. Rotational and livestock grazing programs, companion planting and trap cropping
  - d. Biodynamic measures
  - e. Soil solarisation – where a proper rotation cannot take place. Permission to be obtained from the CO on a case by case basis prior to practice
  - f. Mechanical controls such as traps, barriers, light and sound
  - g. Moderate mechanical cultivation
  - h. Mulching and slashing
  - i. Flame and steam weeding
  - j. Mineral and biological balance within the soil
  - k. Other approved substances listed in Annex I or II as A or R in restricted instances where management practices are not effective. (Note differing criteria for USA and Japan markets)
- 4.5.4. In relation to noxious weed or pest (including feral) control mandated by state authorities, application of prohibited substances to certified areas of land shall at a minimum disqualify such areas of land for 12 months from point of application. See Section 4.8 Use of Prohibited Substances.
- 4.5.5. At all times GE (GMO) materials, or materials derived from GE, are prohibited in organic production.
- 4.5.6. Ionising radiation as a post harvest practice is prohibited.

## 4.6. HACCP based ACO Farm Food Safe Certification

This Section (4.6) of the Australian Organic Standard is non-mandatory and is designed to allow ACO certified operators market access where specific certification requirements exist for retailers, food processors and other buyers for Farm Food Safety management systems based on HACCP. This component of the standard shall also include all other requirements outlined in the standard that are deemed mandatory to maintain certification.

Operators wishing to include these additional requirements within their certification should contact the ACO certification office for details of procedures and training to implement.

Specific certification to this section shall require additional fees paid to the ACO office and specialised third party auditors allotted by ACO who are QSA (Quality Society of Australasia) registered for food safety audits in addition to being registered and recognised by ACO as organic auditors.

### 4.6.1. Management

- 4.6.1.1. The Organic Management Plan shall contain food safety management details which are relevant to this operation, in relation to food safety aspects. This shall include a standard HACCP based assessment table of all relevant food safety risks identified and detail in the management plan as to how these risks shall be managed and verified as managed, including critical limits noted where relevant). This shall include post harvest food safety management and include chemical, physical and microbial risks.
- 4.6.1.2. Responsibilities shall be documented in the OMP for who is responsible for the food safety management of the operation.

### 4.6.2. Training and Records

- 4.6.2.1. Staff shall be trained in relevant areas of food safety responsibility and personal hygiene and this shall be documented and recorded.
- 4.6.2.2. Operators, staff and subcontractors applying agri-chemicals shall be trained in application practices (eg an approved Chemical Users Course). This shall be verified by documentation.
- 4.6.2.3. All relevant records pertaining to food safety shall be maintained for a minimum of 5 years.

4.6.2.4. A document register for documents used relating to food safety management shall be maintained (ie farm applications record template, chemical inventory list, etc).

#### **4.6.3. Internal Auditing and Corrective Actions**

4.6.3.1. An internal audit (for food safety) shall be carried out by the operator on the certified operation/s. This shall occur no later than 6 months following an ACO audit, and therefore at least once per year

4.6.3.2. Corrective actions shall be taken and recorded by the operator where there is non compliance with the current version of the Australian Organic Standard including section 4.6. This may include instances arising from an internal audit, a customer complaint, a random market sampling, etc.

4.6.3.3. Identified non compliant (ie food safety risk) product shall have a documented process in place to ensure this is segregated and relevant buyers notified.

#### **4.6.4. Product Quality Control**

4.6.4.1. (Where relevant) relevant customer quality specifications for all products supplied to the operator or required by the operator shall be maintained on file and incorporated into the Organic Management Plan.

4.6.4.2. Consignments shall be assessed for quality specification conformance.

4.6.4.3. Where there are identified potential microbial food safety risks, microbial test/s shall be carried out on end product, and results maintained on file, verifying ongoing conformance of product to specifications.

4.6.4.4. Relevant customers shall be notified where product is non conforming (to specification), and customer response/s shall be recorded and maintained on file.

4.6.4.5. In addition to general requirements of the Australian Organic Standard (3.4.2) in relation to product traceability and product recall, in the instance of (food safety related) contamination of product, there shall be an effective plan for isolation, segregation and recall of all non complying products in place.

#### **4.6.5. Inputs and Storage of Inputs**

4.6.5.1. Where inputs for farming and other supplies (including other certified organic supplies) are brought into the operation, the operator shall have a basic Approved Supplier Program for these products. (eg a system/list which is sufficient to ensure that only compliant products are purchased / maintained)

4.6.5.2. Where agrichemicals and other potentially contaminating substances are on-site, they shall be stored in such a fashion to ensure they are both secure (ie child proof) and pose no contamination risk to end product or certified areas.

4.6.5.3. In regard to purchase and eventual disposal of agrichemicals used for pest and disease control, this shall occur in a legally compliant fashion (including past "prohibited input" containers for disposal).

4.6.5.4. There shall be a current inventory kept (and annual stock take) of agrichemicals and other inputs used for pest and disease control stored and used on farm.

4.6.5.5. For agrichemical input products used and recorded for pest and disease control, there shall be compliance with the Agricultural Pesticide and Veterinary Medicines Authority (APVMA – formerly NRA) requirements. (ie registered for intended use)

4.6.5.6. All relevant withholding periods shall be complied with by the operator where pest and disease control products are used which have specified withholding periods. These shall be noted in spray or application diary.

#### **4.6.6. Water use and testing**

4.6.6.1. Assessment of water quality and safety may include consideration of the following:

1. The risk category (and target market) of the product for sale;
2. The origin of the water source, and the nature of its use;
3. Neighbouring activities and facilities which may impact on the source;
4. Other on-farm activities which may impact on water quality.

As a guide, testing should occur:

1. if water comes in contact with edible parts of the crop (before or after harvest);
2. is applied within two days of harvest;
3. if produce surface may trap moisture and encourage microbial growth;
4. if water source may be contaminated with stock/bird faeces.

The level of E.coli on the water test should not exceed 20 cfu/gram. If it does, procedures shall be in place to manage and monitor this risk (ongoing testing, treatment, alternative source).

- 4.6.6.2. Where water is used for washing of end product, microbial tests are required to verify that water and/or end product are safe. In regard to town water, council test results or written confirmation from Council as to potable status of water shall suffice. Tests shall be conducted following any change to the assessed risk of the water or the intended use of the water.

**4.6.7. Post Harvest Handling, Equipment, Transport and Pest Control**

- 4.6.7.1. Calibration shall be conducted and recorded on all critical equipment (agrichemicals applicators, cool rooms etc) which has a potential impact on food safety management.
- 4.6.7.2. A current and valid checklist shall be completed relating to cleaning, pest control and maintenance of post harvest storage, packing and/or transport facilities or this may be incorporated into the OMP which verifies assessment of areas of potential food safety risk in these areas. (This may be the checklist from "Guidelines for on-farm food safety" available from the Department of Primary Industries).
- 4.6.7.3. Management practices (in field, in pack shed, post harvest and transport) shall be sufficient to prevent chemical, microbiological or physical contaminants from entering end food product. This shall include staff awareness of issues and preventative practices to ensure ongoing food safety management.
- 4.6.7.4. In relation to cleaning of packing facilities, systems shall be in place to ensure prevention of vermin and other pest problems whilst maintaining the facility in order to ensure safe food is produced.
- 4.6.7.5. All containers, equipment and materials which may come in contact with end product shall be sufficiently maintained and clean to ensure no contamination to end products.
- 4.6.7.6. All storage and transport arrangements shall be sufficiently maintained and managed to ensure no contamination of end product. This may include particular consideration to packaging depending on the mode of storage and transport (and storage at end point of use).

## 4.7. Environmental Management and Social Policy

### ENVIRONMENTAL AND BIODIVERSITY MANAGEMENT

- 4.7.1. Management, protection and enhancement of biodiversity and environmental aspects on organic farming operations shall be a priority of certified operators. Management decisions shall take into account impact on native flora and fauna. Changes to the natural or existing state of the farming operation (such as clearing) shall take into consideration hydrological issues, as well as impacts to biodiversity on-farm. Practices such as shelter belts, corridors, wetlands and remnant vegetation protection are considered aspects of biodiversity management.
- 4.7.2. Management shall aim to ensure provision for regionally appropriate tree, bush and/or native grassland areas so as to enhance on-farm flora and fauna protection and biodiversity. This area should comprise greater than 5% of total farm land area for farms greater than 4 Ha, and its ongoing management/protection documented annually in the Organic Management Plan. Derogations to this rule may be permitted where regional biodiversity protection is being achieved and verified in regionally appropriate ways not feasible on the farming operation itself. Such biodiversity areas may include, but are not limited to non fertilised, species rich pastures, fallow land (fallow for greater than 15 months at a time) natural water features and wetlands, forested or heavily treed areas, and “non productive” areas on farm which are not cultivated or intensively stocked. The aim is to enhance biodiversity on farm enabling “eco-system services” to enhance the productivity and sustainability of the organic farming operation and the surrounding environment.
- 4.7.3. Where production systems are deemed by the certification office to be natural areas of significance or production systems inherently based upon ecological aspects, monitoring procedures shall be in place to assess and verify ongoing sustainable practices. For example such monitoring may include photo point monitoring of pasture and floral species in rangeland management operations.
- 4.7.4. For perennial production systems such as orchards and plantations, permanent and/or a diversity of floor coverings shall be required to be documented in the OMP by the operator. Such coverings shall assist in soil protection as well as biodiversity enhancement on farm. Diversity management in the orchard may also entail consideration of refuge plantings which assist as predator harbours and trap crops.
- 4.7.5. All operations, whether primary production or processing, shall ensure that production activities add positively to the environment of the region within which the production system is based, whilst minimising all forms of environmental pollution where possible.
- 4.7.6. Management practices shall conserve non-renewable resources. Crop production, processing and handling systems shall where appropriate and possible recycle nutrients, carbon and other waste products generated through harvesting, processing and packaging.
- 4.7.7. All certified operations shall ensure identification of critical environmental aspects which are relevant to their production system and outline management plans in the Organic Management Plan to address these aspects, while showing through time how there is continual improvement to such aspects via monitoring or other means of verification. Where there are noted serious or critical environmental issues pertaining to the relevant sector or operation being certified, such operations shall have in place a management system which is documented and monitored in relation to its performance on these environmental issues. A continued improvement in management practices and environmental outcomes is required. Organic certification may entail acknowledgment of existing environmental management systems where these conform to the above noted requirements.
- 4.7.8. **Burning of stubble** and residues is a restricted practice due to destruction of nutrients and organic matter. Stubble burning shall not be practiced on a regular basis and shall only occur after written permission from the Certification Office (CO). The “cool fires” traditional technique in Australia for effective regrowth of natural pastures and/or control of diseases not possible by other means may be used in restricted instances and following review by the CO. Such practices would require monitoring to ensure that there is not reduction of carbon in the soil through time, whilst ensuring that biodiversity of species is only enhanced by such practices. This may still not be permitted for some markets internationally.

- 4.7.9. The clearing of **primary forest** and destruction of primary ecosystems on certified lands is not permitted. The clearing of **primary forest** and destruction of primary ecosystems on land intended for organic production prior to application for certification is also not permitted.
- 4.7.10. At all times GE products and processes are prohibited in organic production systems.

#### **SOCIAL POLICY**

- 4.7.11. For operations with more than 10 employees, a policy on social justice shall be documented in the Organic Management Plan outlining management commitment to social justice and the maintenance of basic human rights.
- 4.7.12. Operations which are deemed to contravene basic human rights or be involved in clear instances of social injustice shall not be certified.
- 4.7.13. Operators shall not use forced or involuntary labour.
- 4.7.14. Employees and contractors of organic operations have the freedom to associate, the right to organise, and the right to bargain collectively.
- 4.7.15. Operators shall provide their employees and contractors equal opportunity and treatment and shall not act in a discriminatory way.
- 4.7.16. Children employed by organic operators shall be provided with educational opportunities.

### **4.8. Contamination (Chemical, Genetic, Physical) Soils and Produce and Buffer Zones**

- 4.8.1. Residues of synthetic chemicals including organochlorines (OC s) should not be present on certified products, however it is understood that historic accumulation in the environment prevents complete exclusion of these contaminants on agricultural products. The Certification Office (CO) may require ongoing monitoring in certain instances, including restriction of crop types, depending on historic residue levels in farm soils or risk from regional sources.
- The aim of organic certification is to minimise residues and to disallow residues to be present which are suspected to be used in the production and preparation chain. Residues are not allowed where they have not arisen from historic, ambient or unintentional post farm-gate practices.
- 4.8.2. The following residue limit guidelines are set, based upon a percentage of the Maximum Residue Limit (MRL) as set out by FSANZ. Agrichemical residues should be in normal instances less than the level of reporting (ie nil) and no greater than 10 % of MRL in food (for a given food type). Note that this guideline is in recognition of unavoidable ambient and historical contaminants only, and shall not be related to direct application or inadvertent contamination throughout the certified production process.
- 4.8.3. The guideline of 10% of MRL shall also be used as a guide for contaminants in soils – from historical practices. Soil chemical residue percentages may be exceeded in such industries where it can be verified by the operator that cross-contamination or translocation to saleable certified tissues or materials does not and cannot occur, and where soil ecological processes and soil life are not disrupted.
- 4.8.4. Areas in excess of these guidelines shall be either excluded from certification – including via fencing in the case of livestock – and/or a monitoring program maintained by the operator which verifies conformance of all certified product leaving the farm unit. At the discretion of the certifier, no certification for contaminated lands areas may be granted where there are no controls in place to prevent potential for contamination of certified products.
- 4.8.5. Nuts and other oil bearing produce shall not be certified where soil residue concentrations exceed the above percentage levels, except where it can be verified that produce from such farms falls within the residue guidelines, outlined in 4.8.2, required for those food products. Testing shall at all times be oriented towards relevant risk for the sector and situation – see 4.8.32.
- 4.8.6. Note should be taken that in the case of export of certified product to other countries, residue limits set by those countries must be complied with. Onus is on the operator to ensure that specific country regulations are complied with.
- 4.8.7. Organophosphates or other synthetic pesticides, such as carbamates and synthetic pyrethroids, shall not be present as residues on certified organic products or stock

- leaving the farm for sale, and shall not be present arising from post harvest or processing and handling practices throughout the production chain.
- 4.8.8. Non-conforming certified produce residue tests from random sampling by the CO shall require immediate corrective action to ascertain its source. Suspension of certification may occur where the operator cannot verify that such contamination did not arise from on farm practices, processing or packaging throughout the production chain controlled by the certified operator.
- 4.8.9. Heavy metal residues in the tissue of certified products shall not exceed 10% of the Maximum Limit as set out by FSANZ for each specific food group or item where specified. Exceptions may be granted where up to 100% of the Maximum Limit will be accepted where it can be verified that historical land use or naturally occurring background levels are high but where levels in certified produce remain within the FSANZ guidelines. Such exceptions would be accompanied by an ongoing monitoring program and require verification by the operator that through time such contaminants were not continuing to rise on the farm based upon farming practices and/or selection of inputs.
- 4.8.10. Heavy metals, also susceptible to bioaccumulation, are recognised as often unavoidable contaminants arising from historical farming practices or natural processes. At all times operators shall restrict their accumulation on certified farm units by judicious selection of inputs and by monitoring if appropriate. This includes careful assessment of manures sourced from off-farm.

**4.8a Table: Guidelines for Maximum Levels of Heavy Metals (note regional EPA and State Departments of Agriculture requirements)**

	<b>In the Soil (PPM – mg/kg)</b>	<b>In manures &amp; fertilisers (PPM – mg/kg)</b>
Arsenic (As)	5	20
Cadmium (Cd)	5	3.5
Chromium (Cr)	150	250
Copper (Cu)	50	375
Lead (Pb)	100	150
Mercury (Hg)	1	4
Nickel (Ni)	50	125
Zinc (Zn)	100	700

- 4.8.11. Exceptions to amendments and fertiliser heavy metal levels may be granted in instances where such inputs otherwise comply with the Standard, are of a nature as to require limited volumes to be used on the farm unit, and where accumulation of residues can be verified to not pose contamination risk to soil, crops or stock.

**MACHINERY, PLANT AND EQUIPMENT**

- 4.8.12. No prohibited substances shall be stored on certified lands or on fully certified farming units without notification to the certifier and management protocols in place to control such substances. Such prohibited substances shall be contained within a safe, lockable area and a current inventory maintained and made available to the CO or auditors of ACO at any time.
- 4.8.13. Certified operations shall not employ equipment such as boom sprays which are also used for the application of potentially contaminating and prohibited substances on other farming units. Dedicated spray equipment is required for certified organic farming operations.
- 4.8.14. Where equipment or machinery are used in conventional farming systems, such as spreading equipment, clean down procedures shall be in place, and recorded, to ensure no contamination may occur to the certified farm unit.
- 4.8.15. Dip sites, old shed areas and other potentially contaminated areas which may pose risk to certified stock or product shall be excluded from certified areas.

**GMO GUIDELINES**

- 4.8.16. Residues or cross contamination of GMOs into certified crops or produce is prohibited. Such residues shall deem crops or produce uncertifiable. Where there is known ambient risk of contamination of certified crops, residue testing shall be required to ensure no cross contamination has occurred, prior to sale of produce as certified. Crops or products found to be contaminated shall not be certifiable. In such instances, contamination, including inadvertent contamination, may alter the certification status of the property in question.

- 4.8.17. The time period following the production of any GMO crops on conventionally managed operations shall at a minimum be 5 years prior to achieving organic certification for crops which may pose future contamination risk to certified areas. In such instances, a HACCP based management approach shall be required, including monitoring and verification (for example GMO seed residues germinating and cross pollinating), to ensure that no contamination can occur to certified crops. Note should be made of the potential for seed banks to last in excess of five years in soil, and management and monitoring should be oriented accordingly.
- 4.8.18. Where cropping open pollinated or pollination contamination prone crops, identification of all GMO crops which may pose a risk – within a minimum 10 km radius from the certified operation – is required in the Organic Management Plan. This may require non production of certain crops or similar risk management measures to ensure no GMO contamination.
- 4.8.19. GMOs and their derivatives are prohibited in all aspects of the organic production and consumption chain, including, but not limited to, vaccines used in livestock, bacterial strains, seeds, and materials derived from GMO organisms. Inputs shall be traced back one step in the biological chain to the direct source organism (see definitions) from which they are produced to verify that they are not derived from GMOs.
- 4.8.20. Operators shall outline in their OMP noted risks from GMOs and management strategies to contain such risk. This may include aspects such as seed, propagation and stock sourcing, materials used within the organic operation which are noted as potential GMO sources, and other suppliers which may have GMO risks associated with their industry sector.

#### **BUFFER ZONES**

- 4.8.21. The operator 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. This may include roadways and fallow areas; tree and shrub zones along borders; and/or sections of crops or produce which shall be deemed uncertified along relevant boundaries. Effectiveness of such buffer zones shall be aimed at precluding contamination, and a time line for development shall be established, with monitoring such as residue testing where risks to end product integrity are noted as significant.
- 4.8.22. Buffer zone widths and lengths shall be determined on a case by case basis and shall be accompanied by on-farm risk management by the certified operator. As a guide, buffer zones should be no less than 15 metres in the case of intensive cropping or broadacre cropping activities. Buffer zones shall be greater where greater distances are required to ensure that certified lands and products cannot otherwise be protected from contamination.
- 4.8.23. Where water contamination, or waterborne agents, pose risks to certified farm units, appropriate management practices and technical means such as spillways, trenches, runoffs and/or wetland areas may be required to ensure no contamination may occur.
- 4.8.24. In certain instances, ambient or environmental contamination may be such as to preclude operators and operations from certification, where it cannot be demonstrably shown that contamination threats are able to be managed in a way as to avoid contamination of certified products and the farming system. Rigorous and ongoing monitoring and residue testing may be required where such concerns exist.

#### **USE OF PROHIBITED SUBSTANCES**

- 4.8.25. In instances of mandatory requirements for control of certified noxious weeds, or in other instances requiring the use of prohibited substances on existing certified lands, such lands shall be withdrawn from certification. Notification shall be made to the CO prior to the use of such substances, and the Organic Management Plan shall outline plans for re-certification and management strategies to ensure no contamination occurs to certified areas.
- 4.8.26. In the case of environmental and unforeseen contamination of lands, or in instances of mandatory treatment via government mandated regulation, minimum time periods for recertification shall be 12 months, combined with residue testing which assures that no contaminants remain in the areas so affected. The switching of lands in and out of certification on an ongoing basis shall not be allowed as outlined in 3.1.19 except in cases of state or government mandated requirements.

**WATER**

- 4.8.27. Water use when in contact with the end certified product ready for retail sale shall at a minimum comply with the potable water standards. See Section 6 on water specifications and use. Certified "Approve Product" (AP) water products and/or natural processes of purification are strongly recommended in order to protect certified products from contamination. See also Section 4.4.

**SAMPLING & TESTING**

- 4.8.28. Testing and test results are recognised as a limited means of verification and are not recognised as the basis for organic status of products. The process of production is as important as the end organic product.
- 4.8.29. ACO randomly tests a minimum of 5% of products in the market place or directly from production units in any one year. Operators are required to enable resources to ensure such sampling may be taken.
- 4.8.30. Where contamination residues (such as agrichemicals) are found on or in certified products, further investigation and testing may be at the expense of the operator where it is shown that due diligence and conformance to the standard has not been maintained by the operator or contracted parties to the operator.
- 4.8.31. Sampling may include, but is not limited to, OCs, OPs, pyrethroids, other modern agrichemicals, heavy metals, GMO genetic material, herbicides, microbiologicals.
- 4.8.32. In house or ongoing monitoring may be required by the operator when risks are noted or prior residues have been detected in soils or produce.

# STANDARDS REQUIREMENTS: SECTOR SPECIFIC

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## 5. LIVESTOCK PRODUCTION

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### PRINCIPLES AND AIMS

Where appropriate, livestock are encouraged for use as part of a dynamic organic production system. Instances of their absence in broadacre farming operations shall require a special livestock exemption status allowed by the Certification Office (CO).

Livestock may contribute to the organic farming system in the following ways:

- Improving and maintaining the fertility of the soil;
- Controlling weeds through well managed grazing;
- Diversifying the biology and interactions of the farm.

Organic production of livestock entails adherence to the following principles of livestock welfare:

- Livestock are enabled to perform all natural social and physical functions relevant to their species and breed;
- Livestock are afforded a quality of life and access to healthy diet and conditions so as to produce quality animal products;
- Livestock are grown, or their by-products produced in a way which conforms with natural processes of growth and development, rather than being force fed or growth induced by unnatural methods;
- Breed types are selected which are appropriate for the region and type of production system so as to achieve the principles listed above including maintaining optimal environmental conditions with minimal impact.
- Breeding systems are based on breeds that can reproduce successfully under natural conditions without human involvement

For meat livestock to ultimately be sold as certified animals or meat products, they must be verified to have been treated in full conformance with this Standard throughout their entire lives, which includes having access only to lands managed and certified in conformance with this Standard (see Section 4), from the point of mating on the organic operation, unless otherwise specified. Treatment with prohibited products or products not listed in this Standard as allowed or restricted for livestock use shall deem such livestock permanently de-certified for meat products.

Bovine and ovine livestock unable to be traceable via electronic or other reliable and independent means of identification may not be included in the organic certification program. Other stock (eg chickens) shall be identifiable and traceable to sheds (including numbers) and consignments.

Livestock and land areas which do not have a verified history of conformance with this Standard may not be included in the organic certification program.

Operators raising livestock on land based production systems must also comply with Section 4 of this Standard. Certified livestock shall have constant access to lands managed in conformance with Section 4 of this Standard.

## 5.1. Livestock Management - General

### STOCK TREATMENTS

- 5.1.1. All practical measures shall be maintained to ensure livestock health and welfare remains a priority of the certified operation and such measures shall be outlined in the Organic Management Plan as part of a welfare and health management program. The use of substances listed in Annex II as A or R shall not take the place of management practices for the control of pests and diseases in livestock. Preventative animal husbandry management practices shall be the priority of the organic livestock producer, achieved through aiming for optimal production via best health and environmental management.
- 5.1.2. Vaccines shall be restricted to use only for a specific disease or diseases which are known to exist in the region or on the organic farm, and which threaten livestock health, are required by law or in proven cases where such a disease cannot be effectively controlled by other management practices. Normal quarantine practices shall occur following treatment.
- 5.1.3. The use of prohibited allopathic veterinary treatments (such as drugs and antibiotics) or other treatments not listed or allowed under this Standard shall require prior written veterinary advice and shall lead to de-certification of stock, as listed in table 5a. Use of such substances shall require a quarantine period for such identified stock of three times the legal withholding period of the substance in question, or a minimum of 48 hours, whichever is longer. Quarantine shall occur separate from certified stock and other certified areas as specified elsewhere in this Standard. Following the quarantining process, treated stock may mingle on certified areas of land with certified stock on strict condition that treated stock are identifiable and traceable via documents as separate from certified stock.
- 5.1.4. Prohibited treatment use shall only be acceptable in cases of emergency; however such treatments (including medicines) shall not be withheld where animal welfare concerns exist.
- 5.1.5. Unjustified ongoing or regular use of allopathic treatments or other treatments listed as Prohibited may lead to decertification or deferral of certification for the livestock or the operation in question until such time that it can be shown by the operator to have re-attained effective organic management control of pest or disease problems.

**5a Table: Restricted use of Veterinary and Pesticide Treatments.**

Product/Sector	Conditions for Organic (Re-)Certification
Wool	18 months after treatment
Milk	180 days after treatment
Eggs	60 days after treatment
Poultry and bird game meat	permanent loss of organic status for treated stock
Ruminant and mono-gastric (meat)	permanent loss of organic status for treated stock
Aquaculture	permanent loss of organic status for treated stock

- 5.1.6. The use of anaesthetics will not result in the loss of certification status, but shall require three times the legal withholding period of the substance in question or a minimum of 48 hours, whichever is longer, prior to sale or killing.

### BROUGHT-IN STOCK

- 5.1.7. Any livestock introduced from outside sources, other than certified livestock – as organic or in conversion to organic – shall be segregated from certified stock in a designated holding area for a minimum period of three weeks prior to mingling with certified animals on other certified areas of the farm. Exceptions to this are for breeding purposes only.
- 5.1.8. Stock that have had or continue to have hormone treatments, or which may be infected with, or arise from operations known to contain OJD, BSE or other diseases, are prohibited from access to certified lands. Where such risks are possible from the source, certificates or confirmation that such stock are free from all such ailments is essential where such stock are to be utilised for breeding of certified organic stock, or where such stock shall have access to certified lands.
- 5.1.9. In conversion livestock – carrying valid certificates – shall be certified as organic following full integration into a farming system which carries certified organic status.

The in conversion livestock must be grown out or finished on such operations. Full integration is defined as the livestock in question having experienced a minimum of 3 months life on the certified organic property. Such certification is conditional upon existing livestock conforming fully to the requirements of this standard.

- 5.1.10. On a long term management basis, except in circumstances such as breed changing or start-up, new specialisation, agistment or finishing properties, or high mortality caused by health or catastrophic circumstances, and with the exception of breeding males, uncertified stock may be introduced to certified farm units to a maximum of 10% per annum. Brought in uncertified stock shall require the following conditions to attain full certified status as listed in table 5b.
- 5.1.11. Stock other than poultry from uncertified sources, or raised on land not managed in accordance with this Standard shall not attain organic status for meat production. Incoming (uncertified) stock should be nulliparous (having never given birth) prior to entry to the farming operation, and confirmed to be disease free (see section 4.8). Such stock’s offspring may attain certification status for meat if managed in accord with this Standard and conceived on the certified unit or other certified lands (for UK market) or where breeding stock are managed in accord with this Standard from the last trimester of pregnancy onwards, including throughout the lactation period.

**5b Table: Brought-in (Uncertified) Stock Certification Conditions for (re) Certification**

Stock/Product	Time Periods or Prior Conditions for Product Certification
Wool	18 months after entering the system
Milk	180 days after entering the system (note 9 months for feed for UK SA Cert)
Dairy calves	Calves up to four weeks old
Eggs	Chicks up to two days old
Poultry and bird game meat	Chicks up to two days old
Ruminants and mono-gastrics (meat)	From last trimester (or for UK market from point of mating on the organic farm unit)
Aquaculture	In a fingerling form

- 5.1.12. **Quarantine** areas shall be clearly identifiable on the farm and farm map. Such areas must be shifted to other areas of the property through time, but must not be used for the cultivation of certified organic crops for a minimum period of twelve months following the last use of such dedicated area/s as a quarantine area. Certified stock may not be mingled with quarantined stock on quarantine areas for a period of 3 weeks, or three times the withholding period of the substance/s used on quarantined stock, whichever is greater. After such time, certified stock may have access to (prior) quarantine areas until such areas are required once again to be utilised for quarantine. The quarantine area must be part of the certified farm unit (ie set on land otherwise managed in accordance with this Standard).
- 5.1.13. The **holding** of incoming stock shall require separation from certified areas and stock for a minimum period of 3 weeks where such stock are uncertified and have not been verified to have complied with this Standard in regard to animal treatments for a prior period of 3 weeks prior to arrival on the certified property.
- 5.1.14. Stocking practices for livestock shall be appropriate for the region in question, taking into consideration climatic conditions, fodder production capacity, stock health, nutrient requirements of both stock and pastures, and impact on the environment. Animal races and runs shall be managed so as to prevent excess build up of manures, whilst avoiding pollution of the surrounding environment.
- 5.1.15. **Genetics and breeding techniques** shall be managed to ensure breeding systems are based on breeds that can reproduce successfully under natural conditions without human intervention. Embryo transfer techniques, breeding techniques employing genetic engineering and the use of reproductive hormones and cloning are prohibited within certified operations or for use on certified stock. Artificial insemination is not recommended but is not prohibited.

**WEANING**

- 5.1.16. Young stock from mammals must be provided maternal milk or organic milk from their own species. Operators may use non-organic milk when organic milk is not available. Operators may provide milk replacers or other substitutes only in emergencies provided that they do not contain antibiotics, synthetic additives or slaughter products.
- 5.1.17. With the exception of dairy stock, weaning of livestock shall enable the natural process of animal rearing to occur, including progeny having access to colostrum or first milk where relevant. Weaning management procedures shall take into account the ethological needs of the livestock in question such as to avoid excessive stress during the process. As a guide, weaning times shall conform to the following minimum time frames:
- Beef cattle calves      3 months
  - Lambs                      9 weeks
  - Piglets                     6 weeks

**ANIMAL MODIFICATION**

- 5.1.18. Animal Modification which involves surgical removal of animal organs or parts shall be kept to a minimum, with a preference for species which require little to no modification to perform naturally and healthily, and with preference for management strategies which aim to prevent need for intervention.
- 5.1.19. All animal modifications shall be carried out with minimisation of suffering to the animals. *As a guide:*

**Castration:**

- Lambs prior to 10 weeks; pigs up to 2 weeks; cattle up to 6 months.
- Castration after 12 months should be carried out under the scrutiny of a registered veterinarian.

**Dehorning:**

Prior to 6 months or under anaesthetic. Ideally practiced as close to birth as feasible.

**Mulesing:**

Carried out within 10 weeks from birth. Shall not occur in the absence of preventative management, including permitted substance use and strategic crutching and only to breeds requiring such management practices. Where practiced, the OMP shall note a planned phasing out of such practices through management and genetic selection through time.

**Tail Cutting:**

Prohibited where flesh portions of animal are involved.

**Tail Removal:**

Allowed in lambs up to 10 weeks old.

**Teeth:**

Teeth cutting, grinding, etc not allowed on a routine basis.

**AGISTMENT AND FINISHING**

- 5.1.20. Feedlotting of livestock, battery production systems and other means of densely confined and intensive production systems without access to pasture (landless animal husbandry systems) are not permitted within organic production systems.
- 5.1.21. In certain cases, specifically approved by the CO, livestock may be moved to certified farming systems which are naturally ideal for finishing livestock. Such instances for approval would include livestock being sourced from native pastures which are naturally ephemeral in terms of seasonal fluctuations, or where the natural environment is not suited to fattening and finishing stock. Such operations would be approved based upon their sympathy with best ecological management of natural resources and best welfare management of stock. See stocking rates Standard 5.1.41.
- 5.1.22. Operations agisting or finishing stock shall conform to all requirements as outlined in this section, with the exception of restocking rates for stock.
- 5.1.23. In cases of need to finish livestock on high value diets, livestock may be fed only on certified lands and on additional acceptable products outlined in the Feed Standards 5.1.26 to 5.1.38.

- 5.1.24. Agistment or finishing areas and/or farm units shall be dedicated to be used for certified organic stock only and shall be certified as such.
- 5.1.25. In the case of commons lands and/or stock routes which are required under law to allow passage of regional stock which may be uncertified, such instances shall not affect certification where careful management by the certified operator ensures, on an ongoing basis, that no contamination is posed to either certified stock and/or lands. This may include, in some instances, the requirement for additional monitoring to verify the above.

## FEEDS

- 5.1.26. Certified livestock shall be fed on feedstuffs produced in compliance with this Standard. For livestock products ultimately to bear the certified organic label, 100% of agricultural origin feed shall come from certified organic sources and not in conversion feeds, with the exception of Standard 5.1.29 below and/or from feed produced by the certified operator from the certified (or converting to certification) operation during the conversion phase of the farming system to full organic certification.
- 5.1.27. Livestock not fed on certified feeds, and not otherwise receiving prohibited treatments (which includes growth promotant hormones), may mingle on certified lands with certified livestock without affecting the status of the land or certified livestock on condition that all livestock are identifiable as to their diets and compliance with this Standard.
- 5.1.28. Production units should aim for feed self sufficiency within the region and the farming unit. A minimum of 50% of feeds should be sourced from organic farming systems in the region of the certified farming unit. Where this is not possible, application shall be made to the CO prior to acceptance. All production units should orient their management systems towards greater than 50% self sufficiency in feeds and document this in their OMP.
- 5.1.29. For certified stock, up to 5% of the annual agricultural origin dry matter feed intake may be brought in as **additional non-organic feed** – (eg hay, grains, molasses, copra meal, legumes) following application to and approval from the CO (by completion of the stock feed ingredient sheet) and where products comply with other stipulations in the Standard (ie non GM, non contaminated, etc). Note the USDA NOP requires 100% of agricultural origin feed to be sourced from certified organic sources only or will lead to permanent (NOP) decertification of stock.
- 5.1.30. The following may be included to **supplement** the diet:
- Minerals and natural vitamins;
  - Kelp and plant based marine products;
  - Stonemeal, lime, zeolite;
  - Other products listed in Annex II as allowed for livestock feed use such as yeasts and yeast by-products (non GM), natural herbs, homeopathic remedies.
- 5.1.31. The use of growth promotants, stimulants, appetisers and solvent extracted feeds are prohibited from use in certified feed rations. Growth regulators and synthetic substances of any kind, including synthetic nitrogen compounds and urea, are prohibited to either suppress or stimulate growth.
- 5.1.32. All types of excrement including droppings, dung or other manures are prohibited in the diet for all species
- 5.1.33. For ruminants, animal by products, including meat, offal, manures and feathermeal are prohibited as feedstuffs. Note also that the use of fertilisers which contain animal by products must be fully incorporated into the soil prior to grazing access by ruminants (depending on the volumes used and irrigation intensity, a minimum of three weeks shall be required). Note for the UK market no use of animal by products is allowed as fertiliser where ruminants which are destined for certified organic markets may graze.
- 5.1.34. Animals must have free access to pasture. Choice feeding, whereby animals are provided with a wide variety of food natural to their diet, is to be encouraged at all times as the preferred method of providing the livestock diet.
- 5.1.35. In exceptional circumstances (EC), particularly where animal welfare issues may be at stake, ACO may allow specific derogations to the above. Such derogations shall follow formal application to ACO and will be reviewed prior to possible acceptance. Such derogations may impact on the operator's ability to sell certified product to particular markets - the onus is on the certified operator to ensure compliance with specific country standards.

- 5.1.36. In cases of extreme climatic or other extenuating circumstances, exemption to fodder requirements may be granted. Fodder may then be sourced from products other than those referred to above in Section 5.1.26. Such feed shall be sourced in the first instance from (a) in conversion fodder, or (b) conventionally produced fodder, verified to be free from agrichemical residues, where it can be verified that products from (a) are unavailable. Such exemptions shall follow written communication to the Certification Office (CO) by the certified operator and written confirmation from the CO of exemption. Note that this derogation is not recognised by the USDA NOP in addition to other markets.
- 5.1.37. Where feed is sourced from (a) above, certification status shall be unaffected. Livestock fed from source (b) above must be fed on organically sourced inputs for a consecutive 6 month period before regaining organic status. Additional livestock residue testing may be required, under the direction of the CO, prior to re-attainment of certification.
- 5.1.38. Fodder preservatives are prohibited unless otherwise listed in this Standard as acceptable.

### **LIVING CONDITIONS AND STOCKING RATES**

- 5.1.39. Livestock management, including transport, shall be guided by an attitude of responsibility and care for living creatures. Pain inflicted by treatments such as castrating, marking and mulesing shall be kept to a minimum. Stress must be minimised. Living conditions must consider the natural needs of the animals for free movement, social behaviour, food, water, shelter, shade and direct unfiltered sunlight. Cages are prohibited for all certified animals and animals within the organic production system and tethering for prolonged periods (greater than 24 hours) is not permitted.
- 5.1.40. Pens, stocking yards, housing and transporters shall be free of protrusions and other characteristics such that bruising and trauma is minimised. Housing and pens shall have bedding materials (of certified origin) unless they have natural floors with pasture.
- 5.1.41. The use of practices such as artificial lighting beyond maximum daylight hours to increase productivity is not permitted.
- 5.1.42. Stocking rates shall be guided by a principle of both preventative disease management, good pasture and general farm ecology management (including nutrient load issues) and welfare of stock. Stocking rates should be such as to not add more than 170 kg Nitrogen per hectare per year on certified farm units, and nutrient loads shall be managed in a way such that leaching into the surrounding environment is prevented through effective stock rotation and soil building techniques. As a guide for bovine management, this should not exceed 0.27 Ha/cow/growing season and similar industry recognised relative rates for other livestock. See other relevant sections of this Standard.
- 5.1.43. For livestock housing areas, as a guide, large ruminants and mono-gastrics should have access to not less than 3 metres square for each animal and 1.5 metres square for small to medium ruminants and mono-gastrics. Variations to these guides shall require validation that principles of animal welfare and behavioural freedom are being achieved.
- 5.1.44. The construction of livestock housing areas must provide for insulation, heating, cooling and ventilation of the building, that permits air circulation, dust levels, temperature, relative air humidity, and gas concentrations to within levels that are not harmful to the livestock.
- 5.1.45. For livestock commodities to ultimately carry ACO certification livestock must have been fully in compliance with the Standard throughout the production chain, including transport, processing, wholesaling and storage of such products prior to end point of sale (See also Section 6).

### **COMMONS AND STOCK ROUTES**

- 5.1.46. When certified operators have stock routes though their property (eg rangeland regions) or where common areas are required to be used on an emergency basis, the following applies:
- 5.1.47. Notification to the Certification Office is required of movement of all non-certified stock through stock routes on certified lands.
- 5.1.48. As a guide, the following movement requirements apply:
- Cattle 16 kms/day
  - Sheep 10 kms/day

- 5.1.49. No mingling is permitted with uncertified stock at any time where identification of stock is not possible or where non-certified stock pose a contamination risk to certified stock.
- 5.1.50. Certified stock shall not have access to areas that uncertified stock are travelling through where it cannot be verified that uncertified stock have not been treated with prohibited treatments for more than 3 weeks prior to stock route or commons access.
- 5.1.51. Prior to use of common lands (in cases of emergency such as flooding) the certified operator shall make application to the CO for approval for certified stock to move through stock routes or commons.
- 5.1.52. Identification of potential contamination points and preventative management is required of the certified operator to ensure maintenance of certification status of stock when on common lands and/or following movement of uncertified stock through stock routes.

### **TRANSPORT AND HANDLING**

- 5.1.53. Transport of animals between properties, or to abattoirs shall take into consideration and comply with animal welfare requirements. Such consideration shall include:
- Minimisation of stress on animals through the assessment of the needs of each animal
  - The fitness of animals for travel
  - Prevention of mixing of different mobs, groups or sexes of animals where stress or social disharmony may arise
  - Needs of animals in regard to prevention of thirst and hunger, temperature, relative humidity and travelling conditions and potential impact on animals
  - The quality and suitability of the mode of transport and all handling equipment to ensure best practice in animal welfare management.
- 5.1.54. Except in circumstances deemed acceptable by the CO, transport times shall not exceed 8 hours from leaving the farm gate to end point arrival. It is recognised that in Australian conditions it may be more appropriate to prolong a transport time to greater than 8 hours where animal welfare considerations are best served. A responsible person or persons shall be allocated by the certified operator to ensure the well being of the animals throughout the process of transport and slaughter is maintained.
- 5.1.55. Certified organic feeds and quality potable water shall be made available between transport legs if spelling and feeding is required.
- 5.1.56. Spelling areas and other off-farm holding areas shall require certification or, at the direction of the CO, prior approval and/or on-site inspection, where used for certified stock holding.
- 5.1.57. All measures shall be taken to ensure no cross contamination may occur in transit, and all measures shall be taken to ensure no mixing of certified with uncertified stock occurs. This shall entail clear identification and differentiation of all certified stock.
- 5.1.58. Transport operators shall be made aware of certification requirements, including washdown/sweep down requirements for all transport equipment and trailers prior to loading and unloading of certified stock. Such considerations shall include loading systems which minimise stress to livestock.
- 5.1.59. Certified animals shall not be treated with any prohibited substances under this Standard to the point of slaughter. Use of electric prods is prohibited for use on certified animals.
- 5.1.60. Electrolytes shall be permissible after applying to, and receiving acceptance by, the CO as to the type and concentrations used in drinking water. Electrolytes containing synthetic amino acids shall not be allowed.

## 5.2. Poultry – Meat and Egg Production

The following guidelines are in addition to other livestock and land management certification requirements in this Standard which shall require detailing in the Organic Management Plan.

All poultry production shall take place in a pastured range situation – defined as birds being produced under natural conditions, allowing for natural behaviour and social interaction and having access to open range or appropriately fenced and managed areas.

No battery caged production is allowed under this Standard.

### GENERAL

- 5.2.1. For egg or meat production, operators wishing to market certified product also as “free-range” shall as a prerequisite maintain standards outlined for such accreditation relevant for their state.
- 5.2.2. Biodynamic certification shall require compliance with all relevant aspects of this Standard, including Annex V.

### HOUSING

- 5.2.3. Chickens, pullets and laying hens shall have permanent access to weather proof housing, with sufficient perches to enable normal roosting for roosting birds.
- 5.2.4. Where housing units accommodate more than the usual social group size, sufficient distribution of feeders, drinkers and other facilities shall be maintained to allow for the development of natural social groups within the housing unit.
- 5.2.5. As a guide, shed stocking density, including roosting areas, for chickens, pullets and meat birds should not exceed 25 kg per square metre and should not exceed 5 adult birds per square metre.
- 5.2.6. The number of birds per shed should be such as to enable balanced bird utilisation of acreage around sheds. As a guide this should not exceed 1500 birds without operator application to ACO and verified production conformance with the principles of this Standard.
- 5.2.7. Clean, dry nesting boxes shall be provided which allow no less than 20% of laying hens to nest at any one time.
- 5.2.8. Artificial lighting to extend daylight hours beyond maximum daylight hours in a given region is prohibited.

### FEEDS, SUPPLEMENTS AND TREATMENTS

- 5.2.9. In accordance with the Code of Practice for the Welfare of Domestic Poultry, clean suitable feed and quality fresh drinking water shall be available at all times. At all times, animal welfare aspects shall guide provision of feeds and treatments.
- 5.2.10. Note Standards 5.1.26 and 5.1.29 for specific and exclusive exceptions to feed allowances.
- 5.2.11. There shall be provision of insoluble grit be where required in the diet of the species in question.
- 5.2.12. The feeding of animal manures is prohibited.
- 5.2.13. The use of nitrogen supplements, growth promotants and hormones are prohibited.
- 5.2.14. The use of synthetic yolk colourant is prohibited.
- 5.2.15. Antibiotics are not permitted except under veterinary supervision and where it is required under State law, or where an outbreak is unmanageable by other means. Such poultry treated shall not be sold as certified and shall be separated and clearly distinguished from certified stock throughout their entire lives. Routine antibiotic use shall not be allowed and may lead to loss of certification for the entire production unit.
- 5.2.16. Routine vaccination is not permitted unless required by law or where it can be verified that organic management practices cannot control regional or on-farm diseases.

### REPLACEMENT STOCK AND BREED SELECTION

- 5.2.17. Laying hens shall only be replaced with stock which have been housed and reared in compliance with this Standard.
- 5.2.18. Chickens shall be reared on deep litter from one week old. Battery brooding is prohibited.
- 5.2.19. Replacement birds no older than two days old only shall be introduced unless being sourced from poultry systems in full compliance with this Standard.

- 5.2.20. Operators shall outline in the Organic Management Plan how they plan to proceed to sourcing replacement stock in full compliance with this Standard from hatching. Note UK Soil Association requirements for organic stock replacement; onus is on the operator to ensure compliance with specific market requirements.
- 5.2.21. Initially converting farm units may convert existing (laying) stock to organic where such stock have been managed in compliance with this Standard (with the exception of certified organic feeds) throughout their lives from 2 days old. Conversion of such stock shall take a minimum of 2 months of full compliance to this Standard (including certified feed).
- 5.2.22. Selection of genetics shall be such as to conform to the principles and aims of organic production. This shall include preference for slower growing species for meat production and species which are able to perform their natural social and physical functions. As a guide, meat chicken species should be grown to a minimum age of 70 days.

#### **HUSBANDRY PRACTICES**

- 5.2.23. Artificial lighting for the purposes of supplying warmth for chick rearing is allowed.
- 5.2.24. All birds shall have access to pastured "green pick" areas during daylight hours. Stocking and rotational management systems should be such as to maintain vegetation levels and to minimise parasite and disease problems. Rotation of stocking areas should be such as to ensure resting of pastures after each batch of poultry. As a guide, for egg production after each laying batch there should be 9 months of pasture resting. For meat birds there should be 2 months resting of pasture per year and one in every three years stocking areas should be utilised other than for poultry production.
- 5.2.25. The requirements outlined above in regard to pasture resting shall not apply to small numbers of poultry which are not kept in runs.
- 5.2.26. As a guide, maximum outdoor stocking rates should not exceed 1000 birds per hectare for egg production or 2500 live birds per hectare for meat production. For Ducks this should not exceed 2,000 birds per hectare; Turkeys 800 birds per hectare; Geese 600 birds per hectare; and Guinea fowl 2,500 birds per hectare.
- 5.2.27. Sufficient shade and adequate water and feed shall be maintained in areas where birds are foraging.
- 5.2.28. Management practices such as cleaning and disinfecting with approved materials shall be maintained to control diseases.
- 5.2.29. Withholding feed and water to induce moulting is prohibited.
- 5.2.30. Practices such as systematic beak or nail trimming and the use of poly peepers are prohibited. Any such practices shall require application to the CO and shall only be allowed in individual and non systematic circumstances in the interest of individual animal welfare.
- 5.2.31. Adequate protection from predators shall be provided for birds. This shall include adequate natural cover (trees, cover crops) such that birds are protected both from overhead predators as well as extreme weather conditions.
- 5.2.32. All husbandry practices shall be oriented towards an ethic of care towards all livestock, ensuring that management practices allow all livestock to perform their natural social functions and physical behaviours, whilst managing their environment to allow for a high standard of animal welfare.

### 5.3. Porcine (Pig) Production

All other relevant sections of this Standard shall be complied with for this production system, in addition to the following, which shall require detailing in the Organic Management Plan:

#### HUSBANDRY PRACTICES

- 5.3.1. Free range management shall ensure that pigs have access to soil and “green pick”, enabling them to conduct natural social and physical behaviour, whilst preventing undue nitrogen leaching and soil erosion.
- 5.3.2. Exercise/play areas shall allow for dunging and rooting by animals, as well as general stimulation, also allowing access to pasture, roughage and living organisms as feed from the third week.
- 5.3.3. Stocking rates shall be such as to allow for normal social behaviour to occur – including adequate space for all pigs. Stocking rates shall ensure that (in terms of production of manure) that no more than 170 kg of Nitrogen per hectare per year is produced within the farm unit.
- 5.3.4. Design of the runs shall be such as to ensure adequate feed troughs and drinkers to avoid excessive bullying, whilst enabling natural social groups to be maintained.
- 5.3.5. Farrowing areas must have a minimum space of 1m<sup>2</sup>/100kg live weight. Crates are not allowed.
- 5.3.6. Sows shall not be tethered, and shall not be dried off by the withholding of food or water.
- 5.3.7. Piglets shall be weaned by the age of 8 weeks, providing they are taking adequate solid foods. Feeding of piglets shall be based on natural (certified organic) milk (greater than 50%), preferably maternal milk.
- 5.3.8. Additional heat is permitted in creep area.
- 5.3.9. Social groups shall be maintained where feasible throughout the life cycle.
- 5.3.10. Tail docking, routine teeth clipping and grinding and nose ringing of sows, gilts and boars is prohibited.

#### HOUSING

- 5.3.11. Livestock housing shall have smooth but not slippery floors. The floor shall not be entirely of slatted or grid construction, and shall ensure adequate bedding material. Access to housing shall be available at all times.
- 5.3.12. Pigs shall be provided with sufficient housing to ensure their physical and social needs are met. Housing areas shall be dry and clean, protecting animals from rain, wind, heat and cold, and bedding areas shall contain sufficient litter material. Where edible bedding material is supplied this shall be from certified sources only.
- 5.3.13. Farrowing accommodation shall be made available well before piglets are born – with a minimum space of 1 square metre per 100 kg live weight required in pen.

## 5.4. Dairy Production

The farming of dairy cows, goats, sheep or other dairy livestock shall comply with all relevant sections of this Standard (most particularly Sections 4 and 5), including the following which shall require detailing in the Organic Management Plan where relevant:

### PRODUCTION

- 5.4.1. Disease/ailment issues such as mastitis, bloat, etc shall be managed according to cultural practices on-farm so as to prevent outbreaks. This may include genetic selection, pasture management to ensure balanced quality feed, and general sanitation practices.
- 5.4.2. Regular or routine use of antibiotics, vaccines and other veterinary treatments in place of cultural management techniques is prohibited, and in such circumstances of use shall comply with requirements laid out in regard to segregation and identification of treated stock, non use of milk from such stock as organic for the specified periods, etc.
- 5.4.3. Quarantine practices shall be put in place where there is use of prohibited substances, or where livestock are brought onto property. Clearly identifiable ear tags or other effective methods shall be employed to ensure all treated livestock are identifiable and segregated such that their milk shall not be mixed with certified product until after required withholding periods.
- 5.4.4. When organic livestock are not available, the bringing in of conventional dairy calves is restricted to the following: dairy calves up to 4 weeks old that have received colostrum and are fed on a diet consisting mainly of full milk.
- 5.4.5. If bedding areas are used, housing areas shall be dry and clean, protecting animals from rain, wind, heat and cold, and bedding areas shall contain sufficient litter material. Where edible bedding material is supplied this shall be from certified organic sources only.
- 5.4.6. Slurry shall be ponded, treated in accordance with this Standard and handled in such a way as to utilise this resource and to prevent environmental contamination or degradation of land.

### PROCESSING

- 5.4.7. On-farm processing of milk products for packaging, yoghurt, cheese or other products shall comply with all relevant processing sections of this Standard (Section 6).
- 5.4.8. Use of sanitisers and other food safety equipment shall be followed by flushes of clean water to ensure no residues in piping and vats. Where appropriate a plug of milk may also be required.
- 5.4.9. UHT and other related preservation treatments are allowed where there is full conformance with this Standard.
- 5.4.10. Separate certification is not required for on-farm processing where primary produce is sourced only from the certified farm unit it is based upon.

## 5.5. Caprine/Goat Production

Goat production shall be deemed organic where there is compliance with all relevant aspects of this Standard, plus compliance with the following.

### WILD GOAT COLLECTION/PRODUCTION

- 5.5.1. Wild or feral goats shall be deemed to be managed under an organic system where there is verified clear management control by the operator to ensure that all stock have been contained within a clearly defined and organically managed region for the entirety of their lives. This shall include effective maintenance of all fence lines to ensure no mixing of stock can occur with neighbouring properties.
- 5.5.2. Where goats have been harvested from the wild and cannot be verified to have been produced and stocked on certified land their entire lives, such stock shall not be deemed organic for the purposes of meat production.
- 5.5.3. For the sourcing of goats from wild/extensive range areas, environmental and stock management shall require the same conditions as for extensive rangeland production in section 5.7.

## 5.6. Miscellaneous Intensive Production Environments

All other relevant sections of this Standard shall be complied with for this production system, in addition to the following:

- 5.6.1. Stocking rates shall be such as to prevent disease and pest build up.
- 5.6.2. Stocking rates shall be such as to allow natural social behaviour and social interaction to occur.
- 5.6.3. Access to open pasture areas during daylight hours shall be provided, for species which naturally require access to pasture, allowing for quality feed and optimal living conditions.
- 5.6.4. Shed or shelters shall be such as to protect against the elements of heat and cold and rain as well as against predators.
- 5.6.5. Quality water and feed in compliance with this Standard shall be constantly provided.
- 5.6.6. Isolation of animals shall be kept to a minimum for quarantine or breeding purposes only.
- 5.6.7. Pasture areas shall be protected and encouraged through the use of cell grazing or other techniques which allow maintenance of ground cover and related feed for penned animals.
- 5.6.8. Apart from purposes of transport or exceptional circumstances of ailment treatment, animals shall not be caged for extended periods.

## 5.7. Extensive Rangeland Production

In addition to all relevant requirements of this Standard – including Sections 3, 4 and 5, the following shall be complied with on extensive pastoral holdings or similar environments where certification is sought.

### TACTICAL GRAZING AND ENVIRONMENTAL MANAGEMENT

- 5.7.1. Grazing management shall include judicious use of ecological aspects of the pastoral holding, fencing and mixed stock use where appropriate, which allows for cell grazing or similar sustainable grazing management practices. Stocking rates shall be such as to maintain long term sustainability of the region. Tactical grazing decisions shall be based upon seasonal and climatic fluctuations to ensure long term resiliency of the operation.
- 5.7.2. Tree and shrub pushing shall be limited to maintain feed through scarce periods. This shall not take the place of well balanced and managed grazing pressure in good years. Protected or scarce floral species shall not be destroyed and shall be encouraged to expand wherever feasible.
- 5.7.3. Native wildlife shall be effectively managed and/or protected as required by relevant laws. Native biodiversity and ecological characteristics shall be a priority of the operator to ensure a regenerating and resilient pastoral environment.
- 5.7.4. Environmental indicator monitoring, optimally by third parties, shall take place which maintains verification of sustainable grazing practices. This should include soil types and cover, pasture types and forage, animal products and total grazing pressure.
- 5.7.5. Traditional landowner rights on pastoral leases shall be respected.
- 5.7.6. Prohibited products under this Standard must not be stored on certified areas of the farm unit.
- 5.7.7. Mandatory spraying by weed control or pest control authorities shall lead to decertification of affected areas. See section 4.8. Weed control shall be managed by the operator in such a way as to (re) establish historically over grazed areas to ensure beneficial pasture species and related native flora are allowed to flourish.

### FERALS

- 5.7.8. Feral animals shall be actively contained and destroyed where declared a “pest animal” in a given state, in accord with state mandated requirements.
- 5.7.9. Baiting for feral animals shall only take place where required by statutory authority. Baiting shall take place and be monitored by the operator in such a way as to maintain target species success and to eliminate non target species deaths, while also ensuring no contamination of certified areas or stock.

### STOCK MANAGEMENT, FEED AND WATER

- 5.7.10. The running of uncertified stock on certified land is allowed on strict condition that such stock have been quarantined after treatment of any prohibited inputs as outlined in this Standard, are managed in accord with the Standard during this time and are readily identifiable from certified stock, and do not pose contamination risks for certified stock.
- 5.7.11. Easily identifiable and resilient tags or other markings shall be used to distinguish certified stock, as well as to distinguish de-certified stock (requiring prohibited treatments, etc), quarantining stock, and uncertified stock.
- 5.7.12. Fencing management shall be maintained to ensure that mixing with neighbouring stock is eliminated or significantly reduced so as not to pose problems of contamination or identification.
- 5.7.13. All potential contamination sources, such as old dip sites, dump sites, old orchards or holding yards, races and crushes, shall be fenced off or stock prevented from entering where such areas reveal high levels of OCs or related contaminants which pose risk of chemical residues in certified end products for sale.
- 5.7.14. Urea, uncertified cotton seed meal, blood and bone, meat meal and related products are prohibited as feed enhancers.
- 5.7.15. Mustering shall not include the use of lead shot.
- 5.7.16. Non-naturally occurring artesian bores shall be capped and their flow regulated or the operator shall have a management plan in place to manage water use and conservation. Water evaporation and loss shall be minimised by appropriate means, and tanks or dams shall be situated in such a manner as to enhance grazing pressure management.

- 5.7.17. Transport times from remote locations shall comply with the Standard, with exceptions being granted by ACO upon application, taking into consideration animal welfare issues, segregation and related logistics.

## 6. PROCESSING/PREPARATION

### 6.1. Production Facilities, Processes, Records & Procedures

This section outlines generic requirements for those wishing to process or prepare certified organic products or materials – whether independently or under contract processing arrangements. See also Section 3 for basic requirements, including requirements prior to certification, ingredient allowances and requirements for assessment, labelling and marketing claims, and packaging.

Processors may include Contract Processors (CP) whereby processing is conducted by a contracted party for a certified operator. Processors may also include Pack-houses where primary product is (re-)packed for retail sale. In all instances, the following shall be complied with where modification occurs to the end primary product:

- 6.1.1. The five main requirements of processing/preparation of certified products are the following:
1. To ensure all relevant aspects of the Standard are maintained, such as adherence to allowed and prohibited inputs, cleaning and pest control aids and maintenance of production facilities in compliance with the Standard.
  2. To ensure that in the process of receipt, preparation, packaging, and despatch that the authenticity of the certified product is maintained – ensuring maintenance of nutritional and quality aspects of food products and clean natural fibres.
  3. To ensure a clear and auditable trail is established and maintained for all certified product arriving, being prepared, stored and leaving the certified preparation facilities. This includes the ability for ready identification of all stored and in-process products.
  4. To ensure that all relevant documentation is available and recorded which verifies that all ingredients claimed as organic bear, or relate to, appropriate labelling, documentation and current certificate of certification.
  5. To ensure that management, skills and education of staff and resources are sufficient to maintain effective compliance with the operator's Organic Management Plan (or Standard Operating Procedure) and the Standard.

#### AUDIT TRAIL/RECORDS AND DOCUMENTS

- 6.1.2. All ingredients and processing aids and additives shall be listed and declared by the operator and made available to the CO for review as well as to auditors at the time of audit. All recipes and ingredients shall be assessed and approved by ACO prior to allowance for use of such formulations. See ingredients and labelling requirements in Section 3.5. Also see Section 3.8 for certification recognition arrangements. Ingredients, including substrates and cultures of micro-organisms shall contain only organic ingredients and/or substances listed in Annex III and IV as applicable.
- 6.1.3. Organic processed products shall not use ingredients, additives or processing aids derived from GMOs. All non certified ingredients and all GE at risk ingredients shall be regularly (at least annually) reviewed by the certified operator in terms of availability of certified organic sources and ongoing security of no risk from GE contamination. Such reviewing shall be documented and recorded by the operator. Refer also to 3.1.15. GE at risk ingredients, additives and processing aids must be traced back one step in the biological chain to the direct source of the organism from which they are produced to verify that they are not derived from GMOs.
- 6.1.4. All processors/preparation facilities which are certified shall have in place management procedures for organic products, out-sourced contractors, designated staff responsibilities, and established recording systems to ensure control of certified products at all points from receipt through preparation to despatch of products – constituting aspects of the Organic Management Plan referred to as the Organic Handling Plan (OHP). The OHP may be incorporated as part of an existing Quality Assurance or Standard Operating Procedures manual.
- 6.1.5. Records and documentation shall include data enabling verification of all incoming certified products, including operator certification numbers, certification status/level and name/s of certification body/ies. All records shall be maintained for a minimum of five years. Such a system shall enable a full product recall at any point, either under direction of the operator or the CO in the case of non conforming product.
- 6.1.6. Signage and labelling within the facilities shall be established which enables recognition of certified materials during preparation and storage processes.

- 6.1.7. Product leaving the certified preparation facility shall bear identification to the certification status, certification number of the preparation operator and name and/or logo of ACO, along with clear reference to such products being organic.
- 6.1.8. Products leaving the certified preparation facility shall be linked to appropriate documentation which pertains to the naming of the products, the volume or number of products, certification status, and reference to ACO. Such documentation shall be made available to purchasers or downstream handlers where such products are being traded as certified.
- 6.1.9. Onus is on the operator to ensure all traded produce is sourced – directly or indirectly – from currently registered and certified producers. This shall be based upon the maintenance of an Approved Supplier Program (ASP) which shall assess and list all approved suppliers. This shall include maintenance of updated organic certificates which outlines producer certification number, certification level and accredited certification organisation. The ASP shall relate to specific markets, and shall be designed to cater for each of the markets which the operator is planning to market into, noting the differences in requirements for US versus Japan markets, and the implications in terms of certification organisations recognised for these different markets. A register of accredited certification agencies shall also be maintained and/or referenced by the operator. Such an accreditation register is available via the ACO office.

#### **CLEANING, FOOD SAFETY AND WATER USE**

- 6.1.10. A HACCP based food safety program shall be maintained which shall document and record cleaning procedures and related food safety management practices. Except in circumstances allowed by ACO, compliance with Codex HACCP requirements – as outlined in this Standard (Section 4.6) shall be required. Refer also to FSANZ Food Code.
- 6.1.11. Cleaning practices and cleanliness management shall be carried out in preference to substances being used in order to prevent pest and food safety problems.
- 6.1.12. Sanitisers and other cleaning agents shall require methods to ensure residues are removed after use, such as rinsing with potable water or a plug, or allowing time for cleaning products to volatilise, prior to certified products making contact with such surfaces. MSDS's (Material Safety Data Sheets) for all products shall be maintained.
- 6.1.13. Water used in preparation facilities shall not exceed 5 PPM free available chlorine – arising from normal regulatory authority treatment – unless where mandatory under health regulations. Application to the CO is required prior to treatment of water.
- 6.1.14. Where water treatment is required acceptable means such as ultraviolet, ozone, mechanical filtration, vacuum distillation, hydrogen peroxide, peracetic acid or related agents may be utilised.
- 6.1.15. Water use at all times shall be guided by the principle that pure and natural sources shall be utilised where available.
- 6.1.16. Water sources shall also require scrutiny where there are processing actions such as reduction whereby residues such as Fluorine shall remain below accepted levels of safety.
- 6.1.17. As a guide all contaminants shall comply with WHO (World Health Organisation) and FSANZ guidelines for water used for contact with certified products.
- 6.1.18. Where additives in water are used in the processing or washing of products, non contaminating agents which maintain the authenticity of the organic product shall be chosen for use. Substances and processes listed in Annex III are allowed, where use allowance is noted. Other substances may be considered and reviewed by the CO after submission by the operator.

**PEST CONTROL**

- 6.1.19. Prevention of pest infestation shall be the management aim of the operator. Such prevention may take the form of physical exclusion, bug zappers at entry points, sanitary and related practices which reduce pest attraction.
- 6.1.20. The following methods of pest control are prohibited:
- Use of pesticides not contained in Annexes 1 or 2.
  - Fumigation with ethylene oxide, methyl bromide, aluminium phosphide or other substances not contained in Annexes 1, 2 or 4.
  - Ionising radiation
- 6.1.21. Rodent, insect, bird and other pest control shall in the first instance use non-chemical means, or shall utilise methods and substances which will not compromise the authenticity of certified products.
- 6.1.22. Contractors shall be made aware of the requirements of this Standard and where prohibited substances are used, these shall be placed, contained and monitored in such a way as to manage risk from contamination.
- 6.1.23. Pest control records must clearly identify:
- Rodent bait stations and active ingredients
  - All chemical usage for site protection and disinfestation
  - All fumigation of products on or off site
  - MSDS for all treatment chemicals.
- 6.1.24. Fogging and misting shall not take place at a time during which certified products are present in the facility being treated. 48 hours minimum time shall elapse following such treatment with prohibited inputs prior to re-entry of certified products. Treatment shall be such as to ensure no packaging, equipment or other contact surfaces may cause indirect contamination to certified products at a later date.
- 6.1.25. Written consent is required for use of prohibited pest control agents not listed in the Annexes as Allowed. Agents which are known to cause harm to the external environment shall be restricted or prohibited in areas where organic processing or storage occurs. Where IFOAM requirements apply, such prohibited products shall include ethylene oxide, methyl bromide and aluminium phosphide and automatic gas dispensers delivering such products as Dichlorvos.

**PROCESSING, STORAGE AND DISTRIBUTION**

- 6.1.26. Techniques used to process organic food shall be biological, physical and/or mechanical in nature. Any additives, processing aids, or other substances that chemically react with or modify organic foods shall comply with the requirements of Annex 3.
- 6.1.27. Processing, handling and storage of certified products shall take place separately in space or time. Certified products shall be fully segregated and facilities ideally dedicated to certified product handling and/or verified to be clean and non-contaminating to certified products throughout the processing (including filtration and related refining processes), handling and storage procedures. See also Section 8.4.
- 6.1.28. Filtration materials shall not be made of asbestos nor permeated with potentially contaminating substances. Filtration techniques that modify organic food at a molecular level shall be restricted and require prior approval from ACO prior to use.
- 6.1.29. The extraction of any product shall only take place with water, ethanol, plant and animal oils and naturally occurring products, vinegar, carbon dioxide, or nitrogen. These shall be of a quality appropriate for their purpose.
- 6.1.30. Storage of incoming and outgoing product shall be clearly and readily identifiable with signage and labelling. Where dedicated areas are not possible for certified products, moveable signage and due procedures which ensure segregation shall be maintained. Records shall be kept enabling a full audit and stock take of stored materials at any one time.
- 6.1.31. Transporters shall have dedicated sections/transport units for outgoing certified products. Where this is not feasible, packaging and handling shall be such as to ensure segregation of certified materials.
- 6.1.32. Outgoing product shall be clearly labelled with accompanying documentation denoting the product's certified status, the ACO name/logo and the client's certification number. Where transport operators are not familiar with the

requirements of this Standard, the certified operator shall supply documented procedures and verbal instructions to ensure maintenance of product authenticity.

### ENVIRONMENTAL ASPECTS

- 6.1.33. All processing facilities shall comply at a minimum with EPA (Environmental Protection Authority) or equivalent authority requirements and in addition shall minimise environmental contamination or stress to the region in which it is situated. Operations which have specific environmental aspects requiring special management to protect the environment shall include in the OMP the program relating to managing such aspects to protect the environment. Such management systems may entail an ISO 14001 or similar approach where relevant.
- 6.1.34. Best management practice shall be maintained for efficiency in energy use.
- 6.1.35. Bi-products from processing shall be utilised or disposed of in an environmentally acceptable way, with reprocessing, or recycling of materials encouraged.
- 6.1.36. The use of persistent or carcinogenic chemicals within certified areas of the processing plant are prohibited. At all times chemicals chosen for use shall take into consideration environmental impacts from production, use and disposal.

### TEMPORARY CERTIFICATION OF FACILITIES

- 6.1.37. Where a warehousing facility, a preparation facility or related facilities or equipment are required for use on a one-off basis by a certified operator, certification of produce may be maintained where an auditor of ACO, assigned by the CO, has inspected the facility and management, and has verified that all requirements for handling and preparation are complied with as laid out in this Standard. Such instances shall be assessed on a case by case basis, arranged and fully paid for in advance by the operator and be overseen by the certified operator or owner of such certified product, in addition to the ACO auditor.
- 6.1.38. The CO reserves the right at any point during such a processing run, based upon the assessment of the assigned auditor, to deem product being processed as de-certified where this Standard is not complied with in regard to preparation of certified products.

### COTTAGE INDUSTRIES

- 6.1.39. In certain circumstances where primary producers have in-house processing facilities, exemption may be allowed for certification as a separate preparation facility. The following conditions are required for this to be acceptable:
1. Such an operation shall occur within the existing certified farm unit and shall not occur in a separate off-site facility;
  2. Such an operation shall source primary agricultural produce only from the certified farm unit which it is based on. Exempt inputs are all preserving and related aids, including sugar, which may be required in addition to fresh or other certified primary agricultural produce from the certified farm unit.
  3. Such an operation shall not turn over more than \$40,000 per annum in any given tax year and shall not export product to maintain status as a cottage industry processor
- 6.1.40. A certified primary producer shall require separate certification as a processor/preparer where any agricultural produce, other than from their own certified farm unit, is used as input into the final product.

## 6.2. Animal Products

The following Sections 6.2 - 6.6.3 are listed as requirements for the sectors specified, and are additional to all other relevant sections of this Standard, including Section 6.1 and Section 5.1.

### ABATTOIRS

In addition to requirements set out in other sections of this Standard, including Section 6.1, the following is required for the maintenance of certification of stock during processing/preparation at abattoirs and related processing facilities. Abattoirs shall require separate certification as a processing operation, unless an individual audit is arranged with the Certification Office (CO) for each event of handling of certified stock.

#### UNLOADING

- 6.2.1. Animal welfare requirements are to be maintained or exceeded at all times. In the case of poultry, handling and hanging shall be carried out in such a manner as to minimise stress to birds.
- 6.2.2. Prior to unloading, holding pens and ramps shall be clean from non-certified stock manures and other wastes.
- 6.2.3. Social groups shall be maintained and not mixed at the holding pens to point of slaughter.

#### HOLDING

- 6.2.4. Pens shall bear signs denoting certified organic status of stock with appropriate warning signs where necessary. Certified stock shall not be mixed with or be contained within the same pens or areas as uncertified stock at the same time.
- 6.2.5. Stockman on site or equivalent shall liaise with the transport operator to ensure that all documentation is correct and correlates with stock.
- 6.2.6. Where stock are to be held longer than 24 hours from time of beginning of transport to kill, certified organic feed and potable quality drinking water shall be made available to all stock. In such instances, clean and dry areas shall be made available for stock to lie down. At no time shall certified stock have access to uncertified feeds or pasture.
- 6.2.7. Water wash downs/showers of stock or treatment with other materials shall not lead to contamination of stock.
- 6.2.8. Electrolytes shall be permissible after submission to, and acceptance by, the CO as to the type and concentrations used in drinking water.

#### KILLING

- 6.2.9. Processing runs of certified stock shall take place first run of the morning. Where this is not possible, full clean down procedures shall take place from unloading ramps through the entire abattoir/processing operation to ensure no cross contamination. This shall include steam pressure or equivalent wash down of internal facility contact surfaces where sanitisers, bleaches and other cleaning agents have been used.
- 6.2.10. Animals shall be separated from sight of beasts being slaughtered.
- 6.2.11. For bovines, animals shall be rendered unconscious prior to shackling and hoisting.
- 6.2.12. Slow ritual or traditional torture is prohibited.
- 6.2.13. Effective back-up shall be available in the case of stun equipment failure.

#### SEGREGATION MANAGEMENT

- 6.2.14. All relevant staff are required to be briefed as to the status and requirements of certified stock and quality manual or related documented procedures shall outline responsibility areas, special procedures and requirements for handling of certified stock and produce.
- 6.2.15. Signage, labels, tags, stamps and documentation shall be maintained to enable tracing and immediate identification of all certified stock and their certification status along the processing chain from unloading to end carcasses and meat cuts where relevant. Handling and processing systems shall be such as to ensure no accidental or inadvertent mixing or cross contamination can take place.
- 6.2.16. Certified and uncertified carcasses shall not come into contact. Procedures shall be put in place to ensure this which may include empty rails between carcasses or quarters in storage and transport.
- 6.2.17. Water used in facilities for certified product contact shall not exceed 5 PPM free available chlorine except where mandatory under food safety regulations.

## 6.3. Durable Foodstuffs

All requirements as outlined in including 6.1 shall be conformed to for durable food stuffs in addition to the specifications below where relevant.

### 6.3.1. Grains and Grain Products, Oilseeds, Nuts

- 6.3.1.1. Augers and other grain moving equipment shall be cleaned down prior to runs of certified materials where uncertified materials have been handled prior. Where cleaning access is restricted, a plug of certified material will be required to clear out the process line. Such a plug shall be deemed uncertified once it has been fed through the system, and shall be contained, recorded and treated as uncertified product. Verification of non contamination shall be required by operator (swabs of equipment and/or finished product testing) to ensure validity of process in ensuring maintenance of integrity of certified product.
- 6.3.1.2. Mills and processing operations shall operate according to physical methods only for milling, extrusion and modification of certified products, unless otherwise allowed by this Standard.
- 6.3.1.3. Temperature ranges shall be monitored, recorded and maintained to ensure that quality aspects of the organic product are not compromised by extreme heat.

### 6.3.2. Bakeries and Baked Products

- 6.3.2.1. Ingredients from uncertified sources may include water, salt and yeasts.
- 6.3.2.2. Yeasts shall not be sourced from GE processes or products and all sanitary and other steps shall be taken to reduce the risk of cross contamination of yeasts from other production activities.
- 6.3.2.3. Enzymes are allowed unless otherwise prohibited in this Standard.
- 6.3.2.4. Emulsifiers and other processing aids are allowed where specified in Annex III.
- 6.3.2.5. Emulsifiers such as lecithin shall not be sourced from GMO soy. Verification shall be required when using uncertified emulsifiers and other ingredients to ensure they are not products of GE.
- 6.3.2.6. Fatty acids and other aids shall require special exemption from the CO where allowed. In most cases these products are not allowed in certified products.
- 6.3.2.7. Organic products shall not be processed in the same production unit areas (such as preparation, mixing, raising and cooking units) at the same time as uncertified products.

### 6.3.3. Oils and Margarines

- 6.3.3.1. Extraction shall be of a physical nature (heating, pressing, hammering), except where otherwise ratified by the CO as being acceptable under this Standard.
- 6.3.3.2. Processing aids, deodorising, bleaching, and related processes shall comply with this Standard – refer to Annex III and IV. Additional or new materials or processes to be used as processing aids by the operator shall first be ratified by the CO as being acceptable under this Standard.
- 6.3.3.3. In the case of blends or mixtures, at least 95% of all ingredients shall come from certified organic sources with the remaining products listed as allowed under the standard. There shall be no parallel ingredients used in the end product from both certified and uncertified sources.
- 6.3.3.4. Enrichment agents may be added in accordance with appropriate regulation and where in compliance with this Standard. Retinol (Vitamin A) and Calciferol (Vitamin D) are permitted.
- 6.3.3.5. Where uncertified oils are also processed, thorough clean-down or a plug or similar practice shall be used to clean through all pipes and other equipment prior to an organic run. Such a plug shall not be certified once it is passed through the system but shall be sectioned off and treated and recorded as uncertified material. Verification of non contamination shall be required by operator (swabs of equipment and/or finished product testing) to ensure validity of process in ensuring maintenance of integrity of certified product.

**6.3.4. Spices, Tea, Coffee, Sugar and Herbs**

- 6.3.4.1. Spices, tea and coffee shall be harvested, dried, extracted, processed, etc in a manner which ensures no contamination with products prohibited under this Standard. This includes prohibition of pest control chemicals in storage or at time of transport (including port containers).
- 6.3.4.2. For roadside or household drying of products, bio-contamination sources such as livestock, children, and other agents shall be managed or excluded to ensure end product quality and safety.
- 6.3.4.3. In the case of parallel production of certified and uncertified products, clear and readily identifiable signage and management systems shall be in place to ensure no inadvertent mixing can take place. This shall include physical separation, signage, separate harvesting/drying times or related practices which clearly demarcate products.
- 6.3.4.4. Extraction of spice oils shall entail the use of steam pressure or other non chemical extraction practices in compliance with this Standard.
- 6.3.4.5. In the case of parallel production for stills, a plug shall be used or similar means to clean internal pipes and related equipment of uncertified materials.
- 6.3.4.6. Stills, driers, withering troughs, ovens, rollers and roasters or other equipment utilising energy sources shall be managed in an efficient manner, with preference for renewable energy sources being used.
- 6.3.4.7. Where augers or other closed processing equipment is used, full clean down procedures are required prior to the certified product run. In the case of inaccessible areas or processing lines, a plug of certified material may be required to clean through the system. Such a plug shall be recorded, sectioned off and treated as uncertified in such an event.
- 6.3.4.8. The use of fuels in the form of wood shall be linked with resource replenishment.

**6.3.5. Sugar**

- 6.3.5.1. Flocculants and related processing agents shall be based upon natural or verified non-contaminating products. Such products shall require review by the CO prior to acceptance.
- 6.3.5.2. Processing runs of certified cane shall take place at the beginning of the processing day and/or shall be preceded by full clean down and clearing operations which ensure no contact may be made between uncertified materials and certified materials. This shall include the processing of a plug as part of the initial run for certified product where full clean down of the production unit is otherwise not possible. Trucks, carriages, hoppers and other contact surfaces shall be cleaned down prior to certified product movement.
- 6.3.5.3. Re-use of spent or processed materials are encouraged to be recycled either through use as fuel or re-used on certified farm units.
- 6.3.5.4. Mud and dunder from certified sources may be used as a soil enhancer on certified farm units where full segregation is maintained from uncertified by products.

## 6.4. Perishables (Fruits, Vegetables) & Wet Processing

All requirements as outlined in Section including 6.1 require conformance for perishable food processing operations. The following sectors may achieve certification with ACO on condition of compliance to section 6.1 above.

### 6.4.1. Minimal Processing and Juicing

### 6.4.2. Canning, Bottling, Preserving

### 6.4.3. Ripening – See Standard 8.4.11

### 6.4.4. Controlled Atmosphere (CA)

## 6.5. Beverages

Beverages shall require conformance with criteria outlined in Section including 6.1 along with the following:

### 6.5.1. Wines

Sulphur dioxide is permitted for wine but shall fall below the levels specified in the Australian wine standard. As a guide, SO<sub>2</sub> should not exceed 125 PPM in wines. Note specific market specifications and allowances (eg UK and US markets) which may be more stringent than these requirements.

Onus is on the operator to check importing country requirements for certified wine and to not exceed the requirements of such countries.

All other criteria specified under processing shall be complied with in relation to receipt of certified primary product through to handling and processing of certified product as outlined in this Standard.

### 6.5.2. Beers

Refer to CO for updates to this Standard and to Section 6.1.

## 6.6. Miscellaneous Processed Products

### 6.6.1. Pet Foods

6.6.1.1. For pet food to be certified at least 95% of ingredients of agricultural origin shall be from sources produced in compliance with this Standard.

6.6.1.2. Where parallel production occurs within the production plant, certified product shall not come in contact with uncertified products, and all other normal requirements listed under the general Standard for processing shall be adhered to.

6.6.1.3. Vitamins and minerals may be added to boost nutritional status of end product, and may be from either synthetic or natural sources (where available).

6.6.1.4. End product shall not contain prohibited substances such as preservatives and colours other than those listed in Annex III as A or R.

6.6.1.5. End product shall be nutritionally adequate such as to maintain good animal health.

### 6.6.2. Personal, Domestic and Industrial Use Products – Including Cosmetics

The following specifications permit certification of products under the ACO logo as organic. Note that there are restrictions in regard to recognition of this sector as certified organic, and a range of ways in which this sector is currently regulated or not regulated depending on the country and/or regulator. Operators wishing to export need to assess these requirements as additional to, or in some cases overriding the following.

#### Ingredients

6.6.2.1. Products from agricultural sources shall come from certified organic or certified wild harvest sources to a minimum of 95% of all ingredients.

6.6.2.2. Mineral and other non-agricultural origin ingredients shall be from natural sources.

6.6.2.3. Alcohols and tinctures shall be naturally produced using natural fermentation processes and shall be from certified organic sources where commercially available. Use of glycols such as propylene glycol is prohibited.

**Restrictions**

- 6.6.2.4. Substances not listed in this Standard in Annexes III and IV shall require submission to the CO for review as to their status prior to addition into or use with certified products.
- 6.6.2.5. No product ingredients or testing processes shall include testing on animals.
- 6.6.2.6. All processing operations shall conform with the requirements in this Standard for processing – with a clear audit trail, no potential for contamination, and using processes that maintain the natural characters of the ingredients used.
- 6.6.2.7. **Floral waters** shall be recognized as certifiable based upon their being sourced from certified organic farming systems and processed in accord with organic processing requirements. The certifiable component of the product shall be the non steam distillate only in calculating percentages in ingredient lists.

**Labelling**

- 6.6.2.8. All ingredients shall be listed by name on the labelling.
- 6.6.2.9. Labelling may refer to certified organic ingredients on ingredients list where greater than 70% mass/mass of agricultural origin ingredients are from certified sources.
- 6.6.2.10. Reference may not be made to certified organic status for the entire product unless a minimum of 95% mass/mass of agricultural origin ingredients are from sources in compliance with this Standard.
- 6.6.2.11. Case by case assessment shall be made by the CO in regard to labelling of products, and marketing claims as to certified organic, where only small percentages of agricultural origin ingredients are used in end product.

**6.6.3. Natural Fibres / Textiles**

All other processing requirements of this Standard shall be conformed to for wool, cotton and related fibre processing, including environmental aspects of processing facilities, with reuse and/or further processing of by products where appropriate.

**Wool**

- 6.6.3.1. Cleaning and scouring substances manufactured from animal and/or vegetable fatty acids are approved for use. Low impact and biodegradable anionic, cationic and non ionic surfactants are allowed where approved by the Certification Office (CO). Contaminating solvent type scours are prohibited.
- 6.6.3.2. Any antistatic lubricant used in processing, e.g. top making, dressing, spinning, weaving, knitting, etc shall have originally been derived from natural oils from animals or plants.
- 6.6.3.3. Where used, veterinary or food grade light mineral oil (paraffin) and emulsifiers shall be biodegradable and water soluble.
- 6.6.3.4. Wool products bearing certification status shall require treatment in conformance with this Standard throughout the entire production and treatment process.

**Cotton**

- 6.6.3.5. All areas of production shall be certified for partial or full processing for organic cotton – this includes, but is not limited to ginning, spinning, scouring and manufacturing.
- 6.6.3.6. All areas of production which also process uncertified cotton or other materials shall be fully cleaned down to remove all lint, trash and other matter which may harbour contaminants. Such clean down shall enable prevention of contamination of certified materials and in most cases shall include a plug of certified cotton being passed through the gin, recorded and segregated off as uncertified.
- 6.6.3.7. Ginning shall ensure complete segregation of certified and uncertified materials to prevent mixing or contamination.
- 6.6.3.8. Gin trash, burrs, motes and seeds which are segregated from certified cotton runs may be utilised as certified materials while they continue to conform to the requirements of this Standard.

- 6.6.3.9. Approved enzymes, natural vegetable or plant oils or waxes as topical treatments to enhance processing are allowed. Synthetic textile oils, synthetic waxes or silicone based surfactants are prohibited.

**All Fibres - Scouring, bleaching, bio polishing, colour brightening and softening**

- 6.6.3.10. Scouring processes may employ hot water, biodegradable anionic, cationic and non ionic surfactants, citric or acetic acid and protease, lipase, amylase and cellulose enzymes where approved by the CO. Hydrochloric or sulphuric acid are prohibited as processing aids.
- 6.6.3.11. **Bleaching** Soda ash, sodium silicate, and caustic soda (to 3% of weight of goods) or hydrogen peroxide (to 3% of weight of goods) if removed by a final enzyme or hot water and citric or acetic acid scour, are allowed.
- 6.6.3.12. Chlorine, sodium hypochlorite, optical brighteners and/or bluing, or perborate bleaches including sodium perborate and sodium monopersulphate are prohibited.
- 6.6.3.13. Beeswax or tallow wax is allowed as a process aid. Paraffin based wax is allowed as a processing aid if removed with an allowed scouring material later in the manufacturing process.
- 6.6.3.14. Glue bonding agents, chemical solvent bonding or synthetic polymer bonding, are prohibited.

**Finishing**

- 6.6.3.15. Formaldehyde and formaldehyde urea resins, silicone or silicone based finishes, synthetic gums, oils or waxes are prohibited.
- 6.6.3.16. Natural oils, fatty acids, tallow, corn or potato starch, where approved by the CO – including being GMO and chemically non-contaminated – are allowed. Cationic softeners as an aid in sanforisation or finishing, or polyvinyl alcohol in glazing or beetling finishing are allowed.

**Environmental Management**

- 6.6.3.17. In regard to management of the surrounding environment, ongoing improvement shall be required in regard to limiting contaminant output and use of potentially contaminating substances arising from the processing of certified products. This shall be achieved through ongoing research and search for less toxic substances.
- 6.6.3.18. All production units shall have effectively functioning sewerage systems to deal with modifying output products to prevent environmental contamination.
- 6.6.3.19. Products shall be assessed and utilised only where in conformance with the following criteria at a minimum. Where more natural alternatives are available and/or have less environmental impact, these shall be utilised.
- 6.6.3.20. Biodegradability 28 days Toxicity for aquatic organisms (OECD 302A)
- |                   |                        |                   |
|-------------------|------------------------|-------------------|
| <b>Prohibited</b> | <70%                   | <100 mg/l         |
| <b>Prohibited</b> |                        | <1 mg/l           |
| <b>Restricted</b> | <70%                   | >100 mg/l         |
| <b>Restricted</b> | >70%                   | 10 – 100 mg/l     |
| <b>Prohibited</b> | where toxic to mammals | LD 50 <2000 mg/kg |
- 6.6.3.21. All products and metabolites used shall have safety data sheets and related information available at the production unit.
- 6.6.3.22. Products shall only be utilised and allowed where compliant with requirements of international Australian Organic Standards – approval required from ACO prior to use.

## **7. MISCELLANEOUS PRODUCTION SYSTEMS**

### **7.1. Honey and Bee Keeping**

Honey production and labelling shall comply with all conventional requirements of the Australian honey bee industry and relevant authorities, but shall lead to de-certification if any practices occur which contravene the Standard. The requirements below are additional to other requirements laid out in this Standard – eg Section 6 Processing and Section 4 regarding non use of prohibited inputs on lands where foraging occurs and criteria for records in Section 3. For other Standards (eg USDA NOP) onus is on the operator to ensure conformance to such Standards for access to those markets/countries. Certification as organic may occur following a 12 month prior period of Pre-certification under the auditing system of ACO that verifies conformance to the requirements of the Standard outlined below.

#### **SOURCES AND MANAGEMENT OF STOCK**

- 7.1.1. While pedigree of the bees is not crucial for certification, the operator shall use breeds suited to the region and to climatic conditions.
- 7.1.2. Existing bee colonies may be converted to organic production, Introduced bees must come from organic production units where available. Where bees from organic production units are not available, acceptable sources of bees include:
  - 1. Colonies confined to brood chambers only covered by a queen excluder;
  - 2. Divided colonies from conventional hives on brood combs only;
  - 3. Package bee colonies;
  - 4. Nucleus colonies (nucs);
  - 5. Captured wild or migratory swarms on brood combs only.
  - 6. Queen bees compliant with this Standard throughout the entire production season.
- 7.1.3. Bee products may be sold as organically produced when the requirements of these Standards have been complied with for at least one year. During the conversion period the wax shall be replaced by organically produced wax. Where no prohibited products have previously been used in the hive and there is no risk of contamination of wax, replacement of wax is not necessary. In cases where all the wax cannot be replaced during a one-year period, the conversion period may be extended.
- 7.1.4. The use of colonies that have combs containing existing honey produced from nectar collected from non-complying forage areas is prohibited.
- 7.1.5. Wing clipping is prohibited as is the destruction of the male brood during harvest.

#### **FORAGING AREAS**

- 7.1.6. Apiary locations shall not be located within a 5 kilometre radius of pollution sources which may cause contamination of honey by returning foraging bees. Such sources include conventional orchards and crops, livestock dip sites, urban centres, sanitary landfills, garbage dumps, contaminated water, golf courses and GE crops. This distance may be required to be larger where threats such as GMO crops exist which pose potential risk to production and end product in regard to GMO pollen. Where threats to contamination may be present, additional verification and monitoring practices may be required to be in place to ensure conformance with this Standard.
- 7.1.7. All foraging areas shall be verified to have been in compliance with this Standard for a minimum prior period of three (3) years and consist of organically managed crops and/or native vegetation and/or natural range land and pastures. Apiary locations for Spring build-up shall be in or near wooded or naturally undisturbed areas. Hives must be provided with sufficient sources of honeydew.
- 7.1.8. In times of drought, fire or lack of floral availability application must be made to the CO outlining alternative foraging areas during such times. Approval must be sought and obtained from the CO before moving hives to areas not conforming to 7.1.6. After such an event, the first extraction shall be sold as non-organic.
- 7.1.9. The planting of organic bee forage crops in close proximity to bee yards is recommended. Such crops require conformance with Section 4 of this Standard. Yards shall be located near abundant forageable pollen, nectar crops and quality water supply. Management of hives shall take into consideration the ecological system upon which they rely.
- 7.1.10. A detailed and current map/s of all forage areas shall be supplied to the Certification Office (CO) by the operator and be made available at each audit. This shall include

predominant flowering species, location and number of hives and their movement, and the collection period. Hives shall be randomly audited by ACO annually, whilst internal management by the certified operator shall enable verification that all sites comply with the requirements of this Standard. Lack of clear audit trail back through loads to hives and/or lack of records of production and harvesting will preclude the operation and operator from certification.

- 7.1.11. A percentage of hives shall be chosen annually and for inspection by ACO based upon the risks associated with such hives and the overall assessment of management ability of the certified operator. Over any five year period, all hives in the system shall be inspected by ACO auditors. Additional inspection of hives will be required in instances where conventional honey production also occurs.

#### **INTERNAL FEEDING OF BEES**

- 7.1.12. Honey from a known certified organic source is permitted.
- 7.1.13. Bee pollen from a certified organic source is permitted.
- 7.1.14. Sugar and sugar syrup from certified organic sources, if starvation is imminent, is permitted. Honey shall be used as the major feed source, whilst feeding of sugar during any honey flow is prohibited.
- 7.1.15. Supplementary feeding of bees shall only occur after the last harvest of the season with feed complying with this Standard as above. This shall only be allowed following written application to the CO and approval for use.
- 7.1.16. At the end of the production season, hives shall be left with reserves of honey and pollen sufficient for the colony to survive the dormancy period. Feeding of hives is only allowed under extreme climatic or other extenuating circumstances. Any supplementary feeding shall be carried out only between the last honey harvest and the start of the next nectar or honeydew flow period. In such cases, organic honey or organic sugar shall be used, Exceptions may be made to use non-organic honey, for a limited time, and if organic honey or organic sugar is not available; written permission must be obtained from the CO prior to use.

#### **HEALTH CARE PRACTICES**

- 7.1.17. Hygiene and hive management shall be a critical focus of the operator to ensure the health and welfare of the hive, and disease and pest prevention. Bottom boards may be scraped routinely to remove accumulations of wax and other debris that serve as food and shelter for wax moths. Use of any disinfecting materials shall not pose risk of contamination to honey or comb, and shall utilise the following only: caustic soda; lactic, oxalic or acetic acid; formic acid; sulphur; etheric oils. Any other products shall require prior approval by the CO. Practices may also include use of steam and direct flame.
- 7.1.18. Where preventative methods fail, veterinary medicinal products may be used under strict conditions outlined below only. Preference should be given to phyto-therapeutic and homeopathic treatments. Synthetically compounded materials for bee husbandry use (e.g. antibiotics, miticides and synthetic veterinary treatments) are prohibited except on application to ACO for emergency use only. Such treatment shall decertify the treated hive and all honey subsequently flowing from such hives. Such treated hives shall be identifiable and isolated from the certified production system.
- Only in instances where the hive and honey are verified via residue testing to not contain contaminants arising from the treatment shall treated hives potentially be re-entered to the certification program. The treated hive may re-enter the certification system only after 12 months from date of last treatment. Ongoing testing may be required by ACO. Additional market requirements may exclude the above allowance for re-entry of non conforming hives to the certification program.
- 7.1.19. The practice of destroying the male brood is only permitted to contain infestation with *Varroa jacobsoni* (mites).
- 7.1.20. During transport, supers shall be covered to prevent contamination, such as airborne bacteria.

#### **BEE HIVES AND WAX**

- 7.1.21. Particleboard and/or toxic wood preservatives and coatings shall not be used in hive construction or maintenance. Internal areas of beehives (boxes or supers) may be painted with naturally compounded lead free paints or water based non-contaminating acrylic paints. Vegetable oils, paraffin and beeswax mixtures are recommended.

- 7.1.22. Comb foundations are to be made of pure beeswax ideally from certified origin or verified non contaminated origin. Frames shall be made from wood, plastic or other non-contaminating products. Use of plastics for frames shall be verified by the operator to not pose contamination potential in end product.
- 7.1.23. Each individual hive shall have a numbered ID code that relates to the bottom board, brood chamber boxes, queen excluder (if needed), honey supers and cover(s). ACO certified hives shall be clearly labelled with the ACO certification number or similar means of identification of the operator – eg State registration numbers. These shall be permanent markings where non organic honey is also produced in the region. All identification numbers or marks shall be maintained as a register, kept on file by the certified operator and submitted annually to ACO.
- 7.1.24. The use of wet comb (extracted, but wet with honey) from uncertified hives is prohibited.
- 7.1.25. Beeswax shall be obtained only from cappings removed from organic honey comb, and not through the recycling of frames.
- 7.1.26. Wax processing shall utilise stainless steel wax melters only and wax moulds shall be of food grade plastic or equivalent material.

### **HARVESTING AND EXTRACTION**

- 7.1.27. Chemically based bee repellents shall not be used for harvesting. Non-chemical repellent systems only shall be used for harvesting. This may include smoke, escape boards and forced-air bee blowers. Use of smoke shall be kept to a minimum and rely on natural materials only, whilst ensuring no contamination to honey throughout the process.
- 7.1.28. The destruction of bees in the comb as a method of harvesting bee products is prohibited.
- 7.1.29. Settling tanks or strainers should be used to remove foreign materials. Extraction and processing temperatures shall remain limited in time and not exceed 45 degrees Celsius.
- 7.1.30. Certified honey heated to over 45 degrees Celsius shall not be labelled “raw” or “pure” honey due to heat denaturing of enzymes. Pasteurisation is prohibited. Honey extracted with heat above 45 degrees Celsius shall be used for processing purposes only, shall be labelled to denote processing grade only and shall not be sold as pure honey.
- 7.1.31. Testing of water used in processing areas for potential contaminants shall occur at a minimum once each season, where such water is in contact with certified product, and remain on file for viewing by auditors of ACO. See Section 4.8.

### **STORAGE**

- 7.1.32. Honey shall be stored below 45 degrees Celsius and shall not be stored under conditions which pose risk of contamination from containers or surrounds. Galvanised drum storage shall be for minimal times only to prevent zinc absorption. All containers must reach food grade standards - eg polyethylene drums.
- 7.1.33. Storage containers shall be cleaned and dried before use. Hot water pressure washers are recommended.
- 7.1.34. Storage containers shall be labelled with the operator’s name, address and signage denoting certified organic status, ACO certified reference and the client’s certification number, date of harvest and floral source where known.
- 7.1.35. Prior to export shipments being despatched, a minimum of one consignment each season shall be tested for contaminants (refer Section 4.8) and the results forwarded to the ACO office. Such testing shall include products and breakdown products of conventional industry antibiotic treatments, otherwise not permitted in organic production, where there is potential risk of non segregation. Note should be made that additional tests may be required of some importing countries/buyers. The onus is on the operator to ensure conformance with these requirements.

## 7.2. Greenhouse Production, Floriculture and Nurseries and Seed Production

### SOILS AND MEDIUMS

- 7.2.1. All requirements set out by the basic production Standard in Section 4 shall be adhered to for greenhouse and nursery production. This includes emphasis on normal organic soil management as outlined in this Standard as part of an overall whole of farm organic management plan. The farm unit shall be fully certified except in instances outlined in Section 3.6. All design shall be oriented towards environmentally positive outcomes and resource efficiency, including water re-use where applicable.
- 7.2.2. Hydroponic systems whereby plants are fed principally through soluble fertilisers in mediums that are devoid of a healthy and complex soil ecology are not certifiable under this Standard. Plants shall be individually potted and pots shall be of sufficient size to enable full expansion of natural root structure.
- 7.2.3. For nursery production systems supplying certified organic operations with seed or seedlings, one full production cycle shall be verified through documentation compliant with this Standard for a minimum of one production cycle, prior to an operator attaining certification status under this Standard.
- 7.2.4. During off season periods, a cover crop or green manure phase shall be practiced to ensure ongoing soil life protection and enhancement.
- 7.2.5. Mediums used to produce plants may include coconut fibre and other sources listed in this Standard as allowable. Medium used shall be either from the certified farm unit or other certified farm units or from registered "Allowed Input" products approved by the CO.
- 7.2.6. Mediums shall have contact with soil or shall be incorporated or recycled during or at the end of cropping cycle.
- 7.2.7. Where containers are used, containers shall consist of non-contaminating products. Optimally such containers shall be re-usable where phytosanitary considerations are satisfied. Where this is not possible recycling of products and/or disposal in environmentally sensitive ways is required.
- 7.2.8. Sterilisation for purposes of disease management shall either utilise steam, heat or other physical means or other practices or products listed as acceptable in this Standard.
- 7.2.9. The majority of nutrients shall be applied to, or be constituted within, the soil for plant uptake. Sole reliance on foliar feeding is prohibited. Assessment or determination of this shall include that the plant has a complex healthy root structure.

### CROPPING AND HOUSE MANAGEMENT

- 7.2.10. A diversity of crop species shall be chosen in any one season to ensure good rotations and general diversity.
- 7.2.11. Intercrops and harbouring floral species are encouraged for biocontrol agents.
- 7.2.12. Heating and lighting, where used, shall achieve best management practice in terms of efficiency, environmental impact, and wherever practicable shall rely upon renewable resources.

### MULTIPLICATION – SEED AND PROPAGATIVE MATERIAL

- 7.2.13. Seeds and plant materials may be certified organic following compliance to the following and with an Organic Management Plan as outlined in Section 3 and the operator having achieved certification following application.
- 7.2.14. Section 4 of this Standard shall be conformed to during the entire production season and on the land units where the seeds/plant material to be certified are being produced.
- 7.2.15. Certification of an operation and crop is possible following verification of one full production season complying with this Standard, or in the case of annuals and perennials either two growing periods or 12 months, whichever is longer.
- 7.2.16. Seeds produced shall have sufficient buffer zones from other crops such as to prevent cross contamination. This shall include contamination from GMO sources. Refer to Section 4.8. Crop separation may be either time or space based to ensure no cross contamination.

- 7.2.17. Organic seed production shall not occur on sites where GMO seeds or crops have been produced within the past 5 years.
- 7.2.18. Seeds produced from land units in accord with Section 4 of this Standard where such land units have been managed in accord with Section 4 for a minimum of 3 years prior to harvest of the seeds may be certified organic and be marketed as such.
- 7.2.19. Seeds produced from land which has been managed in accord with Section 4 for less than 3 years prior to harvest of those seeds, but for a minimum of the entire production cycle of those seeds may be marketed as Certified In Conversion to Organic. Such seeds may be utilised by either organic or in conversion producers without affecting their certification status, where such seeds are used as propagative material for future crops.

**Table 7a List of plant breeding methods and materials.**

Type of technique	Variation Induction Techniques	Selection techniques	Maintenance and multiplication
<b>Practices permitted for organic plant breeding</b>	Combination breeding	Mass selection	Generative propagation
	Crossing varieties	Pedigree selection	Vegetative propagation including: · Partitioned tubers · Scales, husks, · Partitioned bulbs, brood bulbs, bulbils · Offset bulbs, etc · Layer, cut and graft shoots · Rhizomes
	Bridge crossing	Site determined selection	
	Backcrossing	Change in surroundings	
	Hybrids with fertile F1	Change in sowing time	
	Temperature treating	Ear bed method	
	Grafting style	Test crossing selections	
	Cutting style	Indirect selections	
Untreated mentor pollen	DNA diagnostic methods	Meristem culture	

### 7.3. Sprouts including Wheatgrass

Production of sprouts shall comply with all relevant sections of this Standard, including Section 6 – Preparation – in addition to the following. Sprout production systems may achieve certification after one full production cycle has been under an inspection system of ACO.

- 7.3.1. Seed origin for all sprouts shall be from certified organic sources. This seed shall not be treated with substances other than those listed in Annex I as A or R.
- 7.3.2. All water used in production shall meet, as a minimum, the World Health Organisation Standards for drinking water. Levels of Chlorine or Fluoride shall comply with potable water standards.
- 7.3.3. Growth promotants, fungicides and all other substances prohibited under the Standard for Primary Production are prohibited from use in sprout production.
- 7.3.4. Growing mediums shall be designed to allow for effective cleaning using organically approved means.
- 7.3.5. Pest and disease control shall be managed in a preventative framework, so as to eliminate or reduce the need for non-allowed inputs.
- 7.3.6. In the case of prohibited inputs being used for sanitising, all food contact areas shall be washed thoroughly with hot water prior to introduction of seed material or finished product for packing areas.
- 7.3.7. Consideration shall be given to off-site environmental impacts, and these shall be eliminated or reduced wherever feasible.

## 7.4. Mushrooms

Production of mushrooms shall comply with all relevant sections of this Standard, including Section 6 – Preparation – in addition to the following. Mushroom production systems may achieve certification after a Pre-certification and auditing system under ACO that verifies greater than 12 months since last use of a prohibited substance in areas applied for certification and full compliance with the requirements of this Standard.

- 7.4.1. Conditions for mushroom production are similar to plant crop production requirements under this Standard in regard to inputs.
- 7.4.2. Any un-composted materials used shall be from certified organic sources or from registered Allowed Input sources produced in compliance with this Standard.
- 7.4.3. Compost and compost ingredients do not have to be from a certified source for in conversion certification, with operator documenting efforts to establish fully organic certified inputs.
- 7.4.4. For organic certification materials for compost must be from certified sources, or be verified and documented to be from a source equivalent to organic production (no pesticides or other prohibited products used in the production phase). Such compost must have reached pasteurisation temperatures (>65 Celsius) prior to use – to ensure food safety risks are managed effectively.
- 7.4.5. Steam is allowed for final sterilisation of compost.
- 7.4.6. Chlorine bleach may be used for sterilising equipment and facilities between batches. All residues shall be rinsed prior to introduction of new medium.
- 7.4.7. Spawn shall come from certified sources, unless otherwise unavailable.
- 7.4.8. No GE products or processes shall be used in any part of the production phase.

### LOG GROWN PRODUCTION

- 7.4.9. Logs to be inoculated shall be organically produced or shall be from sources that have not been treated with prohibited substances which may pose contamination risk to product.
- 7.4.10. Logs and/or sawdust during production phase must not be treated with prohibited substances.

## 7.5. Wild Harvest

The production and harvesting of wild or naturally occurring foods and fibres is included under the Australian Organic Standard. This may include certain marine environments. Whilst Wild Harvest may not include the same pro-active management measures seen in organic farming, the following standards shall apply, in addition to other relevant requirements outlined in this Standard.

### PRODUCTION MANAGEMENT

- 7.5.1. Harvest shall occur within a management system which is verified, on an ongoing basis, as not degenerating to the natural ecosystem within which the harvested products are grown. Such harvested areas are required to be verified on an ongoing basis by the operator to be naturally self sustaining and regenerating.
- 7.5.2. Harvesting of produce shall not involve the clear-felling of flora or stripping of fruits of an area which may compromise the area's ongoing ability to function naturally as a complete ecosystem.
- 7.5.3. The production environment shall encourage co-mingling of species of wild harvested products and native species so as to mimic as much as is feasibly possible the natural ecosystems within which these species have evolved. Such practices would lead to the encouragement and fostering of a wide range of flora and fauna which would naturally occur within such ecosystems.

### REGIONAL MANAGEMENT

- 7.5.4. Areas to be certified under the Wild Harvest label need to be clearly defined and identifiable on a regional map. The area of production must be large and distinct enough to reduce the risk of co-mingling with non-certified production. Such areas need to be open and accessible for inspection by ACO.
- 7.5.5. Wild Harvest areas are required to be a satisfactory distance from conventional farming or related practices which may pose contamination risk to the operation. This distance should be no less than 10 metres from conventional activities. Exemptions or extensions to this area shall require assessment for effectiveness in managing and preventing contamination and pollution risks to certified wild harvest areas.
- 7.5.6. Wild Harvest products shall only be obtained from areas where no prohibited substances have been applied.
- 7.5.7. The Wild Harvest area must not be grazed by stock not managed in accord with this Standard, and appropriate measures must be taken to ensure this cannot happen.
- 7.5.8. Where there are other (uncertified) operators in the region, a management program must be in place which incorporates their impact and input into the region.
- 7.5.9. These operators must be taken into consideration by the licensee when assessing the entire region for sustainable and appropriate resource use.
- 7.5.10. Wild Harvest operations must not violate indigenous land holder rights.
- 7.5.11. Operator and/or licensee must exhibit a proven working knowledge and management ability for the region and ecosystems in question.
- 7.5.12. Where substantial scientific knowledge is lacking, there must be a verified program in place aimed at establishing regionally specific ecologically attuned and scientifically verified sustainable management practices.
- 7.5.13. The operator must issue instructions to the collectors and any local agents (middlemen), that at least defines the area of collection and informs them about the Standard and other requirements for certification. The collectors and middlemen must sign statements to say that they have followed the instructions. The operator must keep a record of these instructions and statements.
- 7.5.14. The operator must keep a record of all collectors, and the quantities bought from each collector.
- 7.5.15. Any local agents (middlemen) must be under contract to the operator. The operator must keep a record of these contracts.
- 7.5.16. All relevant licences shall be obtained from controlling authorities for the use or harvesting of resources in the region in question. All operators who have control and/or make modification to certified product throughout the production and supply chain shall formally be incorporated into the OMP and/or be certified in their own right for handling or processing certified products.
- 7.5.17. Products containing a total content of Wild Harvest products may be labelled "Wild Harvest". Products containing mixtures of Wild Harvest and Organic may be labelled Organic, but not Wild Harvest. See Processing Standard – Section 6.

## 7.6. Silviculture / Forest Management

Timber products produced as organic shall be produced under the basic production Standard outlined above in Section 4, as well as Wild Harvest production requirements in Section 0. Requirements as outlined by the Forestry Stewardship Council for forestry management shall require conformance prior to certification being achieved.

- 7.6.1. Soil health and fertility shall be maintained along organic principles and are not permitted to decline, whilst natural cycles affecting the productivity of the forest ecosystem shall be maintained or enhanced through ecosystem management techniques.
- 7.6.2. Diversity of planting shall include annual and/or perennial legumes and/or other species which add to the diversity of the overall production system. A minimum of 5% of other perennial species shall be maintained between the main commercial species, with replanting and regeneration aimed at conserving genetic resources and restoring displaced native ecosystem function.
- 7.6.3. Operators shall not introduce invasive exotic species into the forest ecosystem.
- 7.6.4. Sufficient records and documentation shall be available to verify production practices for the entire growing period of the timber and outline in the Organic Management Plan aspects such as soil management, protection of rivers and streams, local communities and remaining plant, animal and general genetic diversity.
- 7.6.5. Good stewardship of the region shall ensure ecological health, such as waterways and native animals, are maintained and protected. This shall include an updated inventory of soil and water resources, wildlife, threatened and endangered species, native peoples, and unique and fragile forest ecosystems and landscapes.
- 7.6.6. Operators shall protect rare, threatened and endangered species and their habitats (eg nesting and feeding areas) by establishing conservation zones and protected areas appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Hunting, fishing, collecting and trapping that damages the ecosystem is prohibited.
- 7.6.7. Operators shall protect representative samples of existing ecosystems in their undisturbed natural state. Such protected areas shall be identifiable within the landscape and recorded on maps.
- 7.6.8. Harvesting shall be selective and shall take into consideration biodiversity maintenance and protection of wildlife buffer zones and protected areas.
- 7.6.9. Harvesting practices shall ensure that soil erosion is minimised.
- 7.6.10. Regeneration and planting shall occur after harvest in such a manner as to re-establish ecological forest processes as quickly as possible.
- 7.6.11. Organic production practices shall be maintained after harvest as part of overall farm/forestry management practice.
- 7.6.12. Timber forest products from managed areas can only be labelled as certified organic but may not bear certified organic in conversion labels.

## 7.7. Aquaculture

### FISH, CRUSTACEA, MOLLUSCS AND RELATED AQUATIC LIFE-FORMS

- 7.7.1. Production requirements for fish, crustaceans and other marine life production for on-farm, or controlled estuarine conditions shall ensure that the basic organic principles of health management to prevent disease and pest incidence, animal welfare, and good stewardship of the environment are cornerstones of the Organic Management Plan and ongoing activities to maintain certification, in addition to the following:
- 7.7.2. Water sources shall be verified to have minimal to no significant risk from contaminants such as heavy metals, pesticides, biocontaminants and hormone disrupting chemicals. Risk is to be assessed on a case by case basis and established scientific tests will be required to verify the contaminant status of the aquaculture environment.
- 7.7.3. For open marine and freshwater environments the prevailing natural ecological balance shall remain significantly undisturbed ensuring that natural populations are not endangered.
- 7.7.4. Water leaving the operation shall be treated or managed in such a way as to prevent excessive nutrient build up either on or off site.
- 7.7.5. Fish shall be raised under organic principles from fingerling stage, and shall be traceable by batch at least from introduction to harvesting.
- 7.7.6. Certified fish shall not come in contact with uncertified stock during their life cycle. Parallel production of organic and non-organic fish of the same species is not permitted.
- 7.7.7. Construction material of tanks, dams or cages shall not pose contamination risks to water or stock and shall enable the species in question to satisfy its natural behavioural patterns in.
- 7.7.8. The specific needs and natural habits of the fish shall be taken into consideration – this may include habitat composition and structure, stocking density, water quality and physical characteristics along with fish feeding and shoaling factors.
- 7.7.9. Disease and pest control shall take the form of proactive management practices rather than substance use. In the event of critical (non-routine) prohibited input use, treated sections and stock shall be decertified. It is not possible to re-certify treated sections and stock. Treatment with prohibited substances shall not affect certification of entire operation only in instances where no transmission to other stock occurs.
- 7.7.10. The fish or other species to be certified shall not be exposed to undue levels of stress during farming, harvesting, transport or slaughter.
- 7.7.11. Processing of stock shall take place through certified processors only.

### DIET

- 7.7.12. Feed sources shall be based on the natural diet of the species to be certified and shall enable browsing and variety to mimic as much as feasibly possible the natural diet of the organisms being certified.
- 7.7.13. Feed of agricultural origin shall be from sources produced and certified in compliance with this Standard.
- 7.7.14. The feed manufacturing premises and feed formulations shall be audited and assessed to be in compliance with this Standard.
- 7.7.15. Where marine food sources are used, a minimum of 50% of the total diet shall be comprised from by-products of wild fish or marine organisms caught for human consumption. A by-product is understood to be a product derived from the target species from processing practices (not harvesting). The balance not derived from such sources shall be derived from wild marine sources independently certified as capable of sustainable harvesting by either ACO or an approved international certifier (eg through the Marine Stewardship Council).
- 7.7.16. There will be no acceptance of specifically harvested juvenile fish or 'trash fish' for aquaculture feeds as this can damage inshore environments and reduce the natural breeding capacity of fish.
- 7.7.17. There is scope for growing and breeding fish feed stocks within the aquaculture system but the basic organic standards must be adhered to at all times.

**WILD SEA VEGETABLES AND ALGAE**

- 7.7.18. All requirements listed for production under Section 4 of this Standard shall be adhered to for sea vegetable and algae production. This shall include bed maps being supplied annually, along with ongoing monitoring and documentation of populations.
- 7.7.19. In instances of direct harvesting, harvesting of sea vegetables shall be carried out in a manner which assists natural replenishment of vegetative populations.
- 7.7.20. Harvesting shall not impact negatively on other natural species which utilise the sea vegetables in question.
- 7.7.21. Distance of contamination sources, whether chemical, biological or radioactive, shall be assessed at time of inspection. Ongoing monitoring and verification shall be the responsibility of the operator to ensure end product does not accumulate excessive environmental contaminants.
- 7.7.22. Maximum Residue Limits (MRLs) apply for sea vegetables as for their land equivalents as specified in this Standard.

**HARVESTING, TRANSPORT AND PROCESSING**

- 7.7.23. No prohibited inputs shall be used at any period during the harvesting and processing period.
- 7.7.24. Contamination potential shall be managed and prevented or minimised during entire period from harvesting to processing.
- 7.7.25. There shall be no contact with uncertified products at any period during harvest, transport and processing.

**OTHER AQUACULTURE VEGETABLE PRODUCTION**

- 7.7.26. Production of other vegetables in waterways, including water chestnuts, water cress, etc, shall require that the water source and water environment is such as to be a natural waterway environment and for the water to be sourced from not at risk sources.
- 7.7.27. Such production units shall be situated on currently certified land units or land units certification has been applied for.
- 7.7.28. Management of the production area shall be such as to ensure that the natural water ecology is maintained, that a diversity of species is encouraged to flourish and that throughout the entire production season that the area is managed in accord with Section 4 of this Standard where relevant (including all inputs used for production)..

## 7.8. Special Projects, Plantations and Estates – International

### GROUP CERTIFICATION

- 7.8.1. Villages, special project areas and plantations such as tea, coffee, bananas, etc are allowed as a grouping to be certified where there is an umbrella company or management group which undertakes to maintain ACO certification by entering into a licence agreement with the Certification Office (CO) outlining requirements to comply with this Standard. The Group shall be formed around one main product (eg coffee, herbs) to be certified as a group and be constituted of small land holders only. Large farming units, processing units and traders require individual certification and shall not be certified as part of the group.
- 7.8.2. Produce must be sold under the group name – as part of a coordinated marketing strategy (ie individual farmers in the scheme may not sell certified product independently) and there shall be a conforming ICS – Internal Control System in operation. The group shall be large enough to support a viable ICS to ensure ongoing conformance to the Australian Organic Standard. The ICS shall be managed by a nominated individual of the group.
- 7.8.3. Such operations may be traditional agriculture/production systems, forest or wild-harvest systems or similar traditional low-input systems, and be verified to have been compliant with this Standard for a minimum prior period of three (3) years prior to certification as Organic.
- 7.8.4. In addition to requirements laid out in the basic production Standard – Section 4 – and other relevant sections, the following shall be required:

### MANAGEMENT AND EXTENSION

- 7.8.5. In the case of village or regional projects, the operator/licensee to be certified shall be responsible for ongoing community support which shall include agricultural extension (training and demonstrations). The operator shall also provide sufficient field management staff that shall be responsible for a given area or grouping of farmers.
- 7.8.6. Field staff must ensure that all farmers are adhering to the Standard and are knowledgeable of all requirements. These field staff must maintain records of all producers, their names and location, farm area in hectares and year of entrance into the scheme. Field staff must upgrade farm maps annually, must ensure the recording of all harvests and sales, and shall be responsible for maintaining an updated register of certified farmers in the scheme via recorded annual farm inspections.
- 7.8.7. In the case of many producers being certified under one scheme, such as small plot coffee growers, the company which is certified shall endeavour to expand trade with these producers into other commodities where relevant; shall return a price to the grower reflecting the premium prices attained for organic products; and shall endeavour to craft a long term relationship with producers based upon loyalty and community support.
- 7.8.8. Full audit trails shall be maintained by the operator – the licensee – which enables trace-back to individual farmers and farm units of all produce sold as organic.
- 7.8.9. Full responsibility for individual farmer compliance rests solely with the licensee. This shall be managed through at a minimum annual inspections of each farmer and farm in the scheme, in addition to ongoing farmer education and field officer extension work; in-house monitoring by field staff or other third parties employed by the licensee; and management systems which list all current farmers in scheme, their details and their individual verification of conformity with and commitment to the Australian Organic Standard through signed documents. Such documents may require translation into relevant local languages and shall be updated annually.
- 7.8.10. Training shall include the upgrading of skills of all extension or field staff in both organic principles of production as well as updates on changes to organic certification requirements.
- 7.8.11. The licensee shall maintain charts, diagrams and other appropriate educational tools outlining organic certification requirements. These shall help illiterate farmers understand the requirements of the Standard and shall clearly outline what is and what is not acceptable under the Standard.

### INTERNAL CONTROL SYSTEM AND AUDITING

- 7.8.12. The entity shall be responsible for maintaining the ICS, Internal Control System, which shall include in-house education/extension (regarding Standards and organic production methods), in-house auditing and corrective actions relating to the group. This shall include the allocation (internally) of resources and personnel to enact and maintain this. The entity shall train in house auditors to conduct periodic (at a minimum 12 monthly) in-house audits on all the members of the group. Such in-house audit results and auditing records shall be made available to the ACO auditor at the time of an ACO audit, and sent to the ACO office annually.
- 7.8.13. Annual audits by ACO will assess individual farmer performance, as well as working knowledge and technical capability of field staff and shall include witness audits of internal auditing activity. As a guide, 5-20% of producers in the project or scheme shall be audited annually by auditors of the CO, based upon management structure, uniformity and production system types. At a minimum there shall be 5% of operators externally audited by ACO annually, or 6 growers in the scheme, whichever is higher for groups with 1,000 growers or less. For groups larger than 1,000 growers, external audits by ACO shall not be less than 5% or 100, whichever is higher. Such audits shall be recorded by the licensee's field staff, and maintained along with records which document in-house (2nd party) annual audits of all producers within the scheme by field staff employed by the operator/licensee.
- 7.8.14. Transgressions of the Standard or the certification contract by individual farmers in the scheme shall reflect on the licensee where these are not adequately addressed by the licensee immediately on being discovered. Serious repetitive or avoidable transgressions will result in de-certification of the group as a whole. Due diligence by the licensee is required to be verified at each internal inspection to ensure all efforts are made to minimise contamination risks, while maintaining the authenticity of the certified organic product and ensuring full adherence to the Standard. This shall include a sanctions record of producers, maintained by the licensee, which outlines action taken against observed non-conformance with the Standard by individual producers. Failure of the Internal Control System to adequately address internal issues and to eliminate them from the system, and to prevent them occurring, where they pose a risk to organic integrity may result in loss of certification of the overall group.

### **SOCIO-ECONOMIC BENEFITS**

**See also the Social Policy Standards section 4.7 and as a reference and a guide section 7.9 for specifications on Fair Trade**

- 7.8.15. For ongoing certification, emphasis shall be placed on both social and cultural benefits accruing from the organic scheme, as well as physical aspects such as enhanced biodiversity and the protection of native flora and fauna, watersheds, and other ecological aspects of significance.
- 7.8.16. For plantations and estates, living standards and working conditions for workers and small holders, in the absence of their ownership or partnership in the enterprise, must conform to legal requirements, while being exemplary of best practice for this sector, and conforming to the UN Human Rights Charter.
- 7.8.17. For plantations and estates, opportunity for access to housing, food, education, transport and health must be maintained for all workers, field staff and managers under the organic scheme.
- This may include plots of land being made available to workers to enable self sufficiency in food.

### **SPECIFIC PRODUCTION REQUIREMENTS – ESTATES AND PLANTATIONS**

- 7.8.18. Trees and/or shrubs shall be maintained in monoculture crop production areas to provide nitrogen and shade and to help with pest control while enhancing biodiversity.
- 7.8.19. Erosion shall be prevented using effective soil conservation methods such as:
- Covering soil with mulches or crops when not in use;
  - Terracing and contouring;
  - Using silt traps and arresting gully erosion with structures if necessary.
- 7.8.20. Soil organic matter should be improved by available methods such as compost, legumes and/or mulch.
- 7.8.21. Processing facilities shall comply with requirements outlined in Section 6.

## 7.9 Fair Trade

This section is outlined as additional specifications to organic certification for Special and International Projects. Operators wishing to achieve certification to Fair Trade shall require separate application to an organisation providing this service. The following is outlined to enable such operations to integrate requirements into one program, to receive one auditor, which may lead to both organic and fair trade certification.

### 7.9.1 Social Development

- 7.9.1.1 The producer organisation shall demonstrate that Fairtrade revenues will promote social and economic development of small farmers.
- 7.9.1.2 A monitored plan shall be developed under which the benefits of Fairtrade (including the Premium) are shared based on a democratic decision taken by the beneficiaries.
- 7.9.1.3 The majority of the members of the organisation shall be small producers.
- 7.9.1.4 Of every Fairtrade-certified product sold by the organisation, more than 50% of the volume shall be produced by small producers.
- 7.9.1.5 Where a minority of small producers from within a small producer organisation is producing a particular Fairtrade-product, special attention shall be given to ensure that they will always receive a cost-covering price for their product from the small producers' organisation. The small producer organisation shall establish an adequate system for this respectively.

### STRUCTURES AND PARTICIPATION PROCESSES

- 7.9.1.6 An organisational structure shall be in place which enables control by the members. There shall be a "General Assembly" with voting rights for all members as the supreme decision taking body and an elected Board. The staff shall answer through the Board to the General Assembly.
- 7.9.1.7 The organisation shall hold a General Assembly at least once a year.
- 7.9.1.8 The annual report and accounts shall be presented to and approved by the General Assembly.
- 7.9.1.9 Administration shall be in place to ensure the above occurs.

### ONGOING IMPROVEMENT IN ADMINISTRATION AND PARTICIPATION

- 7.9.1.10 The organisation shall work towards transparent planning of the business. Organisations are encouraged to make annual business plans, cash flow predictions and longer term strategic plans. Such plans shall be approved by the General Assembly.
- 7.9.1.11 The participation of members in the organisation's administration and internal control shall be promoted through training and education, improving as a result.
- 7.9.1.12 The organisation shall establish or improve internal mechanisms of members' control over the administration, such as a control committee with rights to review the administration, external audit, etc.
- 7.9.1.13 Increasingly, the organisation's policies shall be discussed in member meetings. Management shall actively encourage members' participation in meetings.
- 7.9.1.14 There shall be improvement of the flow of information from board to members about the business and the organisation's policies.
- 7.9.1.15 Measures shall be taken to improve the members' commitment to the organization.

### NON-DISCRIMINATION

- 7.9.1.16 If the organisation restricts new membership, the restriction shall not contribute to the discrimination of particular social groups.
- 7.9.1.17 Programs related to disadvantaged/minority groups within the organisation shall be in place to improve the position of those groups in the organisation, particularly with respect to recruitment, staff and committee membership.

**7.9.2 Economic Development**

- 7.9.2.1 The organisation shall administer and manage the Premium (from Fairtrade sales) transparently and use it in line with the requirements outlined in these Standard
- 7.9.2.2 The use of the Fairtrade Premium is decided by the General Assembly and properly documented.
- 7.9.2.3 As soon as Premium is available, there shall be documented a yearly Premium plan and budget. Preferably these are part of a general work plan and budget of the organisation.

**EXPORT CAPACITY BUILDING**

- 7.9.2.4 Logistics and communication equipment shall be in place to ensure export capacity of producers and the group.
- 7.9.2.5 The producer organisation shall prove that it meets current export quality standards, preferably through previously exported products which were accepted by importers.
- 7.9.2.6 Demand for the producers' Fairtrade product shall exist prior to small producers being involved in a given project.
- 7.9.2.7 The organisation shall make resources and personnel available to ensure experience in the commercialisation of a product as an organisation, including increasing the efficiency of the operations in such a way as to maximise the return to the members.
- 7.9.2.8 Members shall gradually take on more responsibility over the whole export process.
- 7.9.2.9 The organisation shall work towards the strengthening of its business related operations through such practices as the building up of working capital, implementation of quality control, training and education and risk management systems.

**7.9.3 Environmental Development**

- 7.9.3.1 Compliance to production requirements of Standard are required, particularly section 4, 5 and other sections where relevant. Particular attention shall be given to section 4.7.

**7.9.4 Standards on Labour Conditions**

- 7.9.4.1 Forced labour, including bonded or involuntary prison labour, shall not occur.
- 7.9.4.2 Children shall not be employed (or contracted) below the age of 15.
- 7.9.4.3 Working shall not jeopardise schooling or the social, moral or physical development of the young person.
- 7.9.4.4 The minimum age of admission to any type of work which by its nature or the circumstances under which it is carried out, is likely to jeopardise the health, safety or morals of young people, shall not be less than 18 years.
- 7.9.4.5 Employment shall not be conditioned by employment of the spouse. Spouses have the right to off-farm employment.

**FREEDOM OF ASSOCIATION & COLLECTIVE BARGAINING**

- 7.9.4.6 The organisation shall recognise in writing the right of all employees to join an independent trade union, free of interference of the employer, the right to establish and join federations, and the right to collective bargaining.
- 7.9.4.7 The organisation shall allow trade union organisers to meet all the workers, and allow workers to hold meetings and organise themselves without the interference of the management.
- 7.9.4.8 The organisation shall not discriminate against workers on the basis of union membership or union activities.
- 7.9.4.9 If one or more independent and active trade unions exist in the sector and the region, workers shall be represented by a trade union(s) and workers will be covered by a Collective Bargaining Agreement (CBA).
- 7.9.4.10 If no independent and active union exists in the region and the sector, all the worker's shall democratically elect a worker's committee, which represents them, discusses with the organisation and defends their interests. This committee shall

negotiate with the organisation an agreement on the conditions of employment, covering all aspects normally covered by a Collective Bargaining Agreement (CBA).

- 7.9.4.11 The representation and participation of the workers shall be improved through training activities. These shall also aim at improving the workers' awareness of the principles of Fairtrade.
- 7.9.4.12 If no union is present, the organisation and the workers' committee shall undertake a process of consultation with the national union federation(s) and the International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF) or the respective International Trade Secretariat about improvement of the workers' representation and implementing a Collective Bargaining Agreement (CBA).

#### **CONDITIONS OF EMPLOYMENT**

- 7.9.4.13 Salaries shall be in line with or exceeding regional average and official minimum wages for similar occupations. The employer shall specify wages for all functions.
- 7.9.4.14 Payment shall be made regularly and in legal tender and properly documented.
- 7.9.4.15 Regarding other conditions of employment such as maternity leave, social security provisions, non-monetary benefits, etc. at least the provisions as laid out in the Collective Bargaining Agreement or the Agreement signed between the workers' committee shall be fulfilled.
- 7.9.4.16 All workers shall be employed under legally binding labour contracts.
- 7.9.4.17 The organisation shall work towards all permanent workers having the benefits of a provident fund or pension scheme.
- 7.9.4.18 An adequate sick leave, working hours and overtime regulation shall be put in place.
- 7.9.4.19 Through time salaries shall be gradually increased to levels above the regional average and official minimum.
- 7.9.4.20 Differences in the conditions of employment for casual, seasonal and permanent workers shall progressively be diminished.

#### **OCCUPATIONAL HEALTH & SAFETY**

- 7.9.4.21 Workplaces, machinery and equipment shall be safe and without risk to health. Independent inspection may be required to be carried out by a competent authority or independent inspection agency to assure ongoing safety.
- 7.9.4.22 The following persons are not allowed to work with the application of bio-pesticides that are otherwise approved for use under the Australian Organic Standard: persons younger than 18 years, pregnant or nursing women, persons with incapacitated mental conditions; persons with chronic, hepatic or renal diseases, and persons with respiratory diseases.
- 7.9.4.23 Among the workers' representatives, a person shall be nominated who can be consulted and who can address health and safety issues with the organisation.
- 7.9.4.24 Those handling organic agrochemicals shall be adequately trained in storage, application and disposal of these products both in terms of safety and in terms of organic requirements. These personnel shall be actively informed, on an ongoing basis, of all relevant information on the product they are handling by the producer organisation. This information shall be provided in the local language.
- 7.9.4.25 Adequate personal protective equipment of good quality shall be available and appropriate, especially for the use of organic agrochemicals. Workers handling agrochemicals must use it.
- 7.9.4.26 An occupational health and safety committee shall be established and maintained with the participation of workers. This shall include a collective risk assessment carried out regularly within the organisation.

## 8. MARKETING & HANDLING

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The key objectives of certification of market outlets are to provide the following assurances to customers:

1. A clear audit trail of all certified produce handled and marketed from point of production to end point of sale;
2. Clear identification and demarcation in store and at point of sale of certified and non-certified products;
3. Management and staff control of certified produce at all times to achieve the objective of maintaining the integrity of the certified product;
4. Where preparation of any kind takes place to certified materials that it takes place in accord with the principles laid out in Section 6 on processing/preparation.

### 8.1. Retail and Butcher

- 8.1.1. A HACCP based plan is to be submitted to the Certification Office (CO) outlining plans for management structure, pest control practices, product handling, storage and sale, staff education and labelling systems.
- 8.1.2. A minimum of one unannounced audit per year shall be undertaken to ensure compliance with this Standard, and to ensure audit trail is being maintained. This may include tissue sampling where deemed necessary by the CO.
- 8.1.3. Packaging occurring in-store shall conform to requirements for preparation of organic products.
- 8.1.4. Certified produce shall be sold in block sections, and/or shall not be mixed in with conventional or uncertified products where cross contamination risks may be posed. There shall be barriers or other physical means of separation of uncertified and certified products, with designated areas for storage for organic products.
- 8.1.5. Where non-certified products are also traded in the fresh produce section(s), signage shall be such as to clearly demarcate such produce from certified produce. This may include such produce being labelled as “Conventional” and/or clear signage demarcating certified organic foods only from all other areas.
- 8.1.6. Products marketed as organic shall refer only to certified products. No reference to organic may be made for products which are not certified by this certifying agency, an equivalent accredited agency, or recognised international certifying agencies. See Section 3.8. Certified products are only recognised where accompanied by a Transaction Certificate (or equivalent) as outlined in Standard 3.4.3. Products not traceable and verifiable as certified shall not be labelled as such in-store.
- 8.1.7. Labels shall clearly define “Certified Organic” from certified “In Conversion to Organic”. This shall be accompanied by colour coding or other visibly obvious means of differentiation, including information for consumers regarding labelling systems used.
- 8.1.8. A clearly traceable audit trail shall be maintained by the retailer for all certified products handled and traded, to be made available to the CO at any time on request. Where non-certified products are also traded, the audit trail shall clearly enable tracing of both organic and non-certified traded products.
- 8.1.9. Onus is on the retailer to ensure all traded produce is sourced – directly or indirectly – from currently registered and certified producers. This shall include maintenance of updated certificates or similar written documentation which outlines producer certification number, certification status and expiry date based upon certificate from the accredited certification organisation. A register of accredited certification agencies shall also be maintained and/or referenced by the operator.
- 8.1.10. **Pest control and cleaning** practices shall conform to organic certification requirements for processing and handling. This includes wash down procedures for food surfaces where prohibited products may be used for sanitising. Pest control shall not include substances which may pose contamination risk to stored or marketed products.

**RETAIL CHAINS**

- 8.1.11. Whole retail chains, multi-store outlets or selected retail outlets within a retail chain or group may be certified under the Standard where there is single ownership and full management control exercised by one single commercial entity.
- 8.1.12. Retail Chains or Multi-Store retail outlets require an umbrella management structure which shall be included in annual audits arranged by the Certification Office (CO). Ongoing certification of the entire chain – or parts thereof carrying certified products – shall require verified effective management control of all retail outlets in regard to Standards 8.1.3-8.1.10 inclusive.
- 8.1.13. Annual audits by ACO shall include all participating retail outlets connected to the chain with site and/or desk audits of all participating outlets in the chain.
- 8.1.14. Umbrella management control shall include regular internal audits which are documented, recorded and made available to the CO on request. Such audits shall occur within each six (6) month period at a minimum and all internal audits shall be assessed by the CO via third party audits each year for conformance to Standard.
- 8.1.15. Documented procedures shall be maintained by the umbrella management group for monitoring of stores and certified products via in-house audits, procedures for individual store non-compliance, and sanctions imposed on non-complying stores and/or products.

**8.2. Wholesaler/Exporter/Importer**

- 8.2.1. A wholesaler, packer, exporter or importer – herein referred to as the operator – may be the first or a subsequent trading stage after the primary producer. Primary producers shall be deemed to be wholesalers where they buy in certified produce other than their own for resale. Aspects of cleaning, audit trail, packaging and other requirements laid out in Section 6 shall require conformance by the operator. Where modification in the form of repacking or the like occurs to certified product, conformance and certification to Section 6 is also required.
- 8.2.2. Exporters shall comply with all normal regulatory requirements for the handling and export of products. This shall include the signing and despatch of relevant organic produce certificates for export in addition to all other regulatory requirements and documents. Contact the Certification Office (CO) for details.
- 8.2.3. For handling and wholesaling operations, a HACCP based plan is to be submitted to the CO outlining plans for management structure, pest control practices, product handling, storage and sale, staff education and audit trail control.
- 8.2.4. Where uncertified products are also handled by the operator, clearly designated areas, ideally dedicated, shall be maintained for certified and uncertified products. Designation shall take the form of physical dividers or clear markings, and clear signage.
- 8.2.5. All staff directly responsible for, or directly in contact with, certified products shall be comprehensively briefed as to all requirements for handling and storage of certified products.
- 8.2.6. Bulk commodities arriving shall have documentation and signage defining the product, the certification level and the certification number or numbers of the primary producers or suppliers.
- 8.2.7. A clearly traceable audit trail shall be maintained by the operator, enabling trace-back to all suppliers.
- 8.2.8. Onus is on the operator to ensure all traded produce is sourced – directly or indirectly – from currently registered and certified producers. This shall include maintenance of updated certificates or similar written documentation which outlines producer certification number, certification level and accredited certification organisation.
- 8.2.9. Labelling of, and documentation for, all incoming products shall be the responsibility of the operator. Where products are not appropriately labelled with relevant documentation, corrective action shall be taken which may include rejection of products with notification to the supplier.
- 8.2.10. All produce leaving the premises shall be accompanied by labelling systems and/or documentation which shall include the relevant certification number, level and certifying organisation which shall be made available to the next purchaser on request.

- 8.2.11. Pest control and cleaning practices shall conform with organic certification requirements for processing and handling. This includes washdown of food surfaces where prohibited products may be used for sanitising.
- 8.2.12. Pest control shall not include substances which may pose contamination risk to stored products. This includes fogging, which shall not take place in areas where this would pose risk to contamination of organic products.
- 8.2.13. **Imported** products shall comply with this Standard, shall have been under an inspection system deemed acceptable to the CO, and shall be labelled in accordance with this Standard.
- 8.2.14. **Importers** intending to market certified organic products shall be certified by ACO or an equivalent certification organisation approved by the CO.
- 8.2.15. **Importers** and others utilising certified produce other than solely ACO certified produce shall maintain a register of all accredited certification agencies represented and certifying produce used as inputs or ingredients. Such a register shall be annually updated and shall conform exactly with the register maintained and monitored by the CO. Such “certification transference” arrangements are assessed on a case by case basis – with the exclusion of certification systems known to deviate unacceptably from this Standard. Onus is on the operator to ensure that all use of non-ACO certified materials conform with this requirement.
- 8.2.16. **Importers** shall also remain aware of requirements and regulations for the importation of goods and ensure that all such requirements do not affect the certified status of the imported products.

### 8.3. Restaurants and Prepared Food Suppliers

- 8.3.1. Allowance for licensing of food outlets for the purpose of use of the logo and claims as to certified organic foodstuffs enabling marketing (including all labels and signboards) by a certified operation shall be given where the following are adhered to:
1. Claims as to “organic” shall be made only in instances of verified use of ingredients or products fully in conformance with this Standard and able to be traced via effective documents and records.
  2. The ACO BUD logo may be used on the menu. See Annex VI for an outline of logo types.
  3. Certified organic meals may be specified as such on the menu.
  4. Use of “In Conversion to Organic” products or ingredients shall be labelled as such.
  5. Claims similar to “organic” such as “natural”, “low chemical” shall not be made without CO approval and shall be restricted where not sourced from certified organic sources.
  6. Preparation of ingredients and all ingredients used shall conform to the principles outlined in Section 6 on preparation and other relevant sections of this Standard. This includes the prohibition of products arising from irradiation, GE or GMOs and other products or processes otherwise prohibited under this Standard.
  7. There shall be no use of GMO products or products derived from GE in certified cafes or restaurants or other certified catering operations.
- 8.3.2. At a minimum the operator shall ensure that at any one time:
1. Three (3) or more dishes, with one (1) full course meal (where applicable – this may be entrée + main, or main + dessert depending on menu offering) from the entire menu, arise from certified organic sources and/or ingredients. A minimum of 95% of agricultural ingredients of such meals shall come from certified organic sources.
  2. Beverages shall incorporate certified organic ingredients or shall be certified organic where available in commercial quantities.
  3. Certified organic ingredients shall be sourced in preference to non-certified ingredients wherever available in commercial quantities.
  4. Product sourcing shall include consideration and preference for locally produced and seasonal ingredients.
- 8.3.3. Management control shall be maintained, including effective staff knowledge of certification systems, organic production principles and handling of certified products.

- 8.3.4. Segregation and prevention of contamination of certified products shall be maintained at all times.
- 8.3.5. An auditable trace back of all ingredients used in meals and beverages shall be made possible via the use of documents and recording systems. Purchased produce shall be accompanied by relevant labelling and documentation noting certification status, certification number and name of certification organisation. Documents required for audit by the CO shall include all non-certified ingredients used within the operation.
- 8.3.6. Best Management Practice in environmental management shall be maintained in the use of energy, cleaning agents and wastage as well as workplace health and safety.

## 8.4. Transport and Storage Operations

- 8.4.1. Transport and storage operators may be certified under the provisions of wholesaler in this Standard as well as the criteria outlined below.
- 8.4.2. Inspection of facilities not certified under this Standard, but utilised by certified operators may be randomly assessed by auditors assigned by ACO. Prior to initial use, an inspection of facilities shall be undertaken by an assigned auditor of ACO. Such assessment shall include conformance with the following outlined below:
- 8.4.3. Documentation outlining certified status of product/s shall be maintained by the transport or storage operator. This shall include ensuring that effective signage and/or labelling is present with certified materials to ensure prevention of mixing of certified products with non certified products.
- 8.4.4. Storage of certified products with conventional products shall be restricted as a practice and only occur where no contamination potential is posed to certified products.
- 8.4.5. In cases of storage and treatment of products (eg gassing of bananas) treatment shall not take place in conditions which may pose contamination risk to certified products.
- 8.4.6. Barriers and/or packaging shall be utilised to ensure that no cross contamination may occur to certified product in transit or storage.
- 8.4.7. In the case of bulk carrying or storage of certified product, or in other instances where certified materials may come in contact with surfaces which may have been exposed to contaminating products prior to use, full clean down protocols shall be documented, enacted and recorded prior to handling of certified materials. ACO transport declarations are required. Contact the CO for copies.
- 8.4.8. In instances of potential contamination, monitoring shall be in place to verify that no contamination has occurred to certified product.
- 8.4.9. Prohibited fumigants and other treatments utilised by the operator shall not be used when certified materials are present, nor used in a way which may in the future pose risk of contamination to certified materials.
- 8.4.10. Where prohibited materials are utilised within transports or storage areas as a last resort to control pests, such products shall require prior approval by the CO, must be below LD 50 rating, and followed by a residue monitoring program to verify non contamination risk to certified products.
- 8.4.11. Permitted storage and treatment techniques include the following:
- a. Controlled Atmosphere
  - b. Cooling
  - c. Freezing
  - d. Drying
  - e. Humidity Regulation
  - f. Ethylene gas is permitted for ripening of restricted products. Operators must contact ACO office for advice before using Ethylene gas for ripening. Note some country restrictions on the use of Ethylene for ripening. For example EU and Japan allow for banana ripening only. Onus is on operators to ensure conformance with specific regulations for the country they are exporting to.

## 9. MANUFACTURED INPUTS, AIDS & ADDITIVES

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- 9.1.1. The register of allowed and restricted inputs, aids and additives is managed to bring benefit to the organic and biologically oriented farmer and processor. Assessment of inputs which conform to the following criteria may be added for consideration to the Allowed Input Register. This register is listed on the website [www.aco.net.au](http://www.aco.net.au) and published quarterly. The register is a BFA publication maintained for the benefit of the organic industry and ACO certified operators. The register confirms approval for use in compliance with this Standard. Onus is on the operator to assess where additional market requirements may apply such as the US, Japan, etc. This may include requirements to scrutinise ingredients such as non actives or synergists in a product eg Piperonyl Butoxide (PB) which is not permitted under the USDA NOP whereas Pyrethrum is.

Note that Piperonyl Butoxide will not be allowed under IFOAM Standards from 1<sup>st</sup> January 2006.

- 9.1.2. At all times, inputs into organic farming systems should conform to the basic principles outlined in Section 4 of this Standard. Inputs are supplements to organic farming, and may assist in managing the conversion phase to fully biologically oriented, resilient and sustainable farming system.
- 9.1.3. Inputs which are assessed following application, and which are deemed to conform to the following criteria, may be licensed to bear an AI registration number along with the BFA Registered Product logo. The active ingredients of such inputs shall comply with (ie be listed as permitted in) the Annexes and relevant sections of this Standard, while all non active ingredients shall be assessed against the following criteria.

### 9.2. Agricultural Inputs – Selection Criteria

- 9.2.1. Inputs shall be allowed generally where they are sourced from naturally occurring mined substances, or from organic materials from animal, vegetable or microbiological sources. Ingredients may be subjected to mechanical, physical, microbiological or enzymatic processes and restricted chemical processes only.
- 9.2.2. Allowed inputs into the system are generally prohibited if synthetically compounded – which is defined as a process which chemically changes a material extracted from naturally occurring plant, animal or mineral resources, excepting microbiological processes. Chemically created substances shall be restricted, shall be verified to be nature identical and not chronically toxic nor exhibiting mutagenic, teratogenic, neurotoxic or carcinogenic properties.
- 9.2.3. Inputs shall be assessed upon the basis of necessity for organic production. The logic upon which such assessment will be based includes criteria such as yield, product quality, environmental safety, ecological protection, and human and animal welfare.
- 9.2.4. Animal manure products shall be effectively composted, as per Section 4.3 of the basic production Standard.
- 9.2.5. End products for sale shall not contain levels of heavy metals or other contaminants which pose an ongoing environmental risk to the farming operation, and shall not add to the overall pesticide load in the soil. Levels are set out in table 9.2a for individual heavy metals. Exceptions to this list may only be granted following submission and acceptance by the Certification Office (CO). Products shall be assessed in relation to standard rates and frequency of application.

**9.2a** **Table: Guidelines for maximum levels of heavy metals allowed in end products for sale as manufactured inputs.** Note all other statutory regulations and requirements (eg EPA) may override (ie be more restrictive than) these guidelines.

In manures	(PPM – mg/kg)
Arsenic (As)	20
Cadmium (Cd)	5
Chromium (Cr)	250
Copper (Cu)	375
Lead (Pb)	150
Mercury (Hg)	4
Nickel (Ni)	125
Zinc (Zn)	700

- 9.2.6. Pesticide residues in manures and other ingredients shall be managed and eliminated from the production system so as not to pose on-farm contamination risk.
- 9.2.7. Where potential risk of contamination from ingredients or inputs is noted, random residue tests shall be carried out by the operator to verify that levels of pesticides and heavy metals, among other contaminants, are absent or below acceptable limits within the production system.
- 9.2.8. In cases where input ingredients for the end product are sourced from potentially contaminating areas or processes, a Quality Management system compatible with HACCP principles shall be documented, implemented and recorded by the input manufacturer to ensure the authenticity of manufactured end product.
- 9.2.9. No GE or GMOs shall be allowed in the production process. Inputs must be traced back one step in the biological chain to the direct source organism from which they were produced to verify that they are not derived from GMOs.
- 9.2.10. No ionising radiation is allowed for use on the end product.
- 9.2.11. No human wastes such as urban or multi source water or sewerage shall be used within organic inputs.
- 9.2.12. Management and assessment of contamination shall take into consideration not only end testing of end product but also manage processes and input products to ensure that other potential contaminants or carcinogens, as well as potentially disruptive agents such as hormone mimics, are eliminated or removed from the production process.
- 9.2.13. Extraction processes, production and processing shall take place with consideration to sustainable management practices, protection of the environment, socio-economic aspects and work place health and safety conditions.
- 9.2.14. Inputs shall not be harmful to human health where utilised in the fashion specified on instructions or labelling for the product.
- 9.2.15. Inputs shall not have a negative effect on the natural behaviour or physical functioning of animals kept on the organic farming operation.
- 9.2.16. Assessment of production processes and end products shall also take into consideration consumer perception of such products, and may not be allowed where there is general perception of such products not conforming to the general opinion of what is natural or organic.
- 9.2.17. Products that are assessed as **Restricted** (see definitions) shall clearly specify in labelling and sales information, the areas, sectors and specific conditions under which they may be utilised. Some restricted products may be expressly Prohibited for use in certain sectors or under particular conditions and this must be clearly communicated to the end user via marketing and related information materials.

### 9.3. Aids and Additives – Selection Criteria

- 9.3.1. Aids and additives not listed in this Standard, or those seeking registration under the register for Allowed Inputs to organic production systems or Approved Product status, shall comply with the following guidelines:
- 9.3.2. In all instances the first preference is for sourcing of certified organic products in whole form or used in processing in a natural way – eg flour as a thickening agent.
- 9.3.3. Other food products by nature not certifiable as organic but which are produced only by natural (eg physical or mechanical) processes – eg salt.
- 9.3.4. Second preference is for isolated food substances produced physically or by enzymes – eg starches, tartrates, pectin – or purified products of non agricultural origin such as micro organism starter cultures, acerola fruit extract, enzymes.
- 9.3.5. Other additives and aids shall **not** include the following:
- “Nature identical” substances
  - Synthetic substances judged as unnatural – such as acetylated cross linked starches
  - Synthetic colouring and synthetic preservatives.
  - GE or GMOs.
  - Ionising radiation as a post harvest practice on ingredients.
- 9.3.6. Processing aids must be traced back one step in the biological chain to the direct source organism from which they were produced to verify that they are not derived from GMOs.
- 9.3.7. Aids and ingredients shall be assessed upon the basis of **necessity** for organic production and shall only be used in the absence of other acceptable technologies to preserve or process the product.
- 9.3.8. Necessity may also include where the hygiene of the product cannot be guaranteed by any other natural means, including management practices.
- 9.3.9. Other conditions requiring consideration prior to acceptance include:
- That additives and aids do not compromise the authenticity or overall quality of the certified product;
  - There are no natural alternatives which may replace the use of additives and aids, and such aids and additives otherwise assist in minimising physical or mechanical damage which might result from the use of other technologies;
  - Assessment of production processes and end products shall also take into consideration consumer perception of such products, and may not be allowed where there is general perception of such products not conforming with the general opinion of what is natural or organic;
  - Note also that assessment of products such as aids and ingredients shall require consideration of all other regulatory requirements including international organic regulations. Such regulations override all the above in regard to assessment.

## 9.4. Cleansers, sanitisers and disinfectants

- 9.4.1. Cleansers, sanitisers and disinfectants not listed in this Standard, or those seeking registration under the register for Allowed Inputs to organic production systems or Approved Product status, shall comply with the following guidelines:
- 9.4.2. Sanitisers may be used where followed by effective rinse with potable water or volatisation procedures prior to certified products coming in contact with treated surfaces.
- 9.4.3. Preference is for products that are biodegradable, low in toxicity and generally non contaminating to the environment, both in their production as well as application.
- 9.4.4. Preferred active ingredient products that may carry BFA Approved Product status include, but are not limited to:
- Acetic and related acids
  - Alcohols
  - Detergents (natural and biodegradable)
  - Hydrogen peroxide
  - Peracetic acids
  - Natural Soaps
- 9.4.5. Other non active or synergistic agents associated with or mixed with the above products shall require assessment prior assessment with Section 9.3 of this Standard prior to being given Approved Product status for use as a cleaner/sanitiser.
- 9.4.6. Restricted products include:
- Ammonium and bleach products
  - Hypochlorite products
  - Other oxidising agents that can be fully rinsed and disposed of without direct harm to the environment.
- 9.4.7. In regard to the above restricted list that there is a strong preference for natural alternatives that do not pose a negative impact on the environment, in terms of production as well as end use.

## 9.5. Edible Minerals

**Not being of agricultural origin, salt as such may not be “certified organic” however this guideline outlines the basis upon which such salt products may be registered as an Approved Product (AP) under the BFA registration program for approved products. Such products are recommended for use in certified processed organic products.**

- 9.5.1. Salts and other edible minerals may be registered as Approved Products.
- 9.5.2. No prohibited inputs shall be used at any point along the production chain.
- 9.5.3. Effluent, nuclear waste and other potential environmental contamination sources may affect approved product status and shall be decided by the CO on a case by case basis.
- 9.5.4. Heavy metal and other contaminants shall not be present in the end product at levels above 10% of the Maximum Residue Limit (MRL) for such foods.
- 9.5.5. Aluminium silicate, magnesium silicate and other flowing, tableting and desiccating agents are not allowed in end product for sale.

## 9.6. Spring and Pure Water

**Not being of agricultural origin, water as such can not be “certified organic” however this guideline outlines the basis upon which such water may be registered as an Approved Product (AP) under the BFA registration program for approved products. Such products are recommended for use in certified processed organic products as superior to simply “potable” water.**

- 9.6.1. Spring water may be registered as an Approved Product under this Standard, as may Pure water.
- 9.6.2. The wording ‘organic’ and ‘certified organic’ cannot be used on Spring and Pure water that is registered as a BFA approved product. All labels must be submitted to the CO for approval before printing.
- 9.6.3. Spring water means ground water that flows to the surface on its own accord from subterranean water-bearing strata that, in its natural state, contains soluble matter. Pure water is defined where the source of the water arises from non urban and non industrial sources (ie from either natural catchments or rain sources unpolluted by industrial, urban or similar activity).
- 9.6.4. All Spring and Pure water operations shall ensure that production activities add positively to the environment of the region within which the production system is based, whilst minimising all forms of environmental pollution. Sustainable management of water resources must be included as a critical component of the Organic Management Plan to maintain registration.
- 9.6.5. Spring and pure water may be subjected to one or more of the following treatments:
- Separation from unstable constituents by decantation and/or filtration;
  - Aeration;
  - Deaeration;
  - Carbonation;
  - Ultraviolet sterilisation;
  - Ozone treatment;
  - Pasteurisation;
  - Atmospheric pressure processes.
- 9.6.6. Except in instances determined by the CO to represent natural variations, and with the requirement for conformance with all other relevant regulations as they pertain to water, mineral spring or pure water shall not contain more than the following:
- 0.05 mg/L of Arsenic (As);
  - 1.0 mg/L of Barium (Ba);
  - 30 mg/L of Borate (expressed as H<sub>3</sub>BO<sub>3</sub>);
  - 0.005 mg/L of Cadmium (Cd);
  - 1.0 mg/L of free available Chlorine (Cl);
  - 0.05 mg/L of Chromium (Cr);
  - 1.0 mg/L of Copper (Cu);
  - 0.1 mg/L of Cyanide (expressed as CN<sup>-</sup>);
  - 1.5 mg/L of Fluoride (expressed as F<sup>-</sup>);
  - 0.05 mg/L of Lead (Pb);
  - 2 mg/L of Manganese (Mn);
  - 0.001 mg/L of Mercury (Hg);
  - 45 mg/L of Nitrate (expressed as NO<sub>3</sub><sup>-</sup>);
  - 0.1 mg/L of Nitrite (expressed as NO<sub>2</sub><sup>-</sup>);
  - 0.01 mg/L of Selenium (Se);
  - 0.05 mg/L of Sulphide (expressed as H<sub>2</sub>S);
  - 5.0 mg/L of Zinc (Zn).
- 9.6.7. Spring or pure water shall not have a chemical oxygen demand (expressed as O<sub>2</sub>), when assessed by the dichromate digestion method, exceeding 3 mg/L.
- 9.6.8. The radium content of mineral water shall not exceed 1.0 Bq/L. This shall be measured and verified by the operator where risk of this level being exceeded is present.

- 9.6.9. Spring or pure water shall comply with FSANZ requirements so far as those requirements relate to water.
- 9.6.10. Spring or pure water shall be free (nil counts) from coliforms in 250ml and be free from *Pseudomonas aeruginosa* in 250 ml.

## **9.7. Approved Services**

- 9.7.1. In some instances it is possible to register a service which is deemed to be in accord with this Standard. Such services may include the following:
- 9.7.2. Services/processes which are reliant upon physical, biological or mechanical means (eg vacuum distillation of water, microbial digestion of products) where no synthetic chemical or other prohibited procedures or processes are utilized may be registered as an Approved Service or Process.
- 9.7.3. Such assessment will take into consideration the application of the service/process, the environmental benefit of the process and the benefit to the organic industry in terms of utilization of this service as an approved service.

# ANNEXES

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## EXPLANATION TO ANNEXES FOR CROP AND LIVESTOCK INPUTS & TREATMENTS

Organic farmers realise that the soil is a living entity and that organic practices must feed the soil which in turn feeds the plant. Organic farming is a management intensive, not a materials intensive practice. Materials are a supplementary tool in a balanced organic farm management program.

Allowed inputs into the system are generally prohibited if synthetically compounded – which is defined as a process which chemically changes a material extracted from naturally occurring plant, animal or mineral resources, excepting microbiological processes.

Assessment of materials shall take into consideration environmental aspects, as well as social welfare issues where relevant to the production process. The Precautionary Principle shall at all times be exercised in relation to scientific assessment of materials.

The materials list included in this Standard is by no means comprehensive but is a positive, rather than a negative list. It does not include notification of materials which are obviously prohibited, such as the majority of synthetically derived agrochemicals.

Additions to allowed or restricted inputs or practices may be assessed by the Standards Subcommittee of the BFA at the request and written submission of the operator by completion of the appropriate form (see the BFA website and the National Standard for Organic and Biodynamic Produce). Such assessments may require ratification by the National Standards Sub Committee, chaired by AQIS – the Australian Quarantine and Inspection Service, may take some time to assess and are not guaranteed to succeed. Assessment and approval of inputs is based upon other international regulations and the principles of the Standard.

Materials are listed as Allowed, Regulated/Restricted or Prohibited.

It is a certified operator's responsibility to determine if a material is listed in the following Annexes as acceptable for use in organic production. Look for BFA registered products – which bear the licensed BUD logo – for your assurance of conformance with this Standard. Claims as to "organic" on packaging are not sufficient to verify the conformance of such products with this Standard.

Note that approved input products are not endorsed by the BFA or ACO for technical performance but for conformance with this Standard and certain international organic standards and guidelines only.

It should be noted that some materials listed for use in organic production may not be registered for relevant crop use under State, Federal or International regulation or under other organic certification programs or standards. Onus is on the user to ascertain the legal status of a given input for specific uses.

**Input Status:** Materials used in crop production, pest, disease and weed control have one of the following designations:

**ALLOWED (A)** materials may be used on land and crops in the ACO certification program. Please check with your state agricultural department, the Agricultural Pesticides and Veterinary Medicines Association (APVMA, formerly NRA), a registered supplier or the product label to see whether the material is registered for use on your crop in your state before using the material.

**RESTRICTED (R)** materials may be used on ACO certified land and crops only in restricted instances. Several restricted materials are discouraged in organic production, and they may be used only if no alternatives are feasible. In many cases, the permitted use of these materials is dependent on the specific source, and demonstration that the material is free from contamination. Efforts to reduce or eliminate the use of restricted materials may be required as part of the certified operator's Organic Management Plan and routine use shall require verification of ongoing requirements (such as soil nutrient tests, etc).

**PROHIBITED (P)** materials may not be used on land in the certification program, in or on livestock or in the production of any crops grown on land in the certification program. A time period will apply after the application of any prohibited substances before that land section may be (re)certified. Buffer zone and/or acreage withdrawal requirements may apply. Animals treated with prohibited substances shall require conformance with restrictions outlined in table 4.6a.

- Products prohibited in this Standard include most synthetically derived and highly soluble fertilisers such as super phosphate, urea, muriate of potash, etc.
- Products prohibited also include synthetically derived pesticides, fungicides, and herbicides.
- At all times GMOs are prohibited from use in organic production systems.

**Note, this Standard is a POSITIVE LIST Standard – meaning only those products listed as expressly acceptable for use may be utilised within the organic production system.**

**Any materials not listed in these Annexes require written confirmation from the CO as to their allowed status. Onus is on the operator to ensure inputs comply with this Standard.**

**Onus is on the certified operator wishing to have access also to other exclusive markets such as the US to ensure that they are compliant exactly with the detail of such relevant standards – in the US case – USDA NOP (2002). In some instances this and other standards will override or take precedence over the list of products in the following Annexes.**

**Further, whilst products may be listed in this Standard for use within organic production systems, this assumes that the certified operator has also ensured that such products and the use of such products also comply with other relevant state or regulatory body requirements in regard to the use of such products.**

# ANNEX I: CROP PRODUCTION INPUTS

Note this Annex is for crop inputs only (ie not for post harvest use). Some inputs are listed which are prohibited or restricted for animal treatment or other uses. Check the other Annexes for cross reference.

Note also that all applications to crops and stock require conformance with appropriate regulation and registration in each State. This is in addition to specific requirements of Sections 4 and 5 of this Standard.

**How to use this Annex:** Dependent upon certification status sought (AOS – Australian certification, US (USDA) or Japan (JAS) import country requirement certification) the list below notes whether or not you are permitted to use such products in your certified farming operation. Note also that for the US market only there may be additional products allowed – listed under the USDA NOP – for product access to that market. Note however needs to be made of overriding legal requirements (eg Australian Export Orders) for producers certified within Australia.

Note also that use of inputs such as manures and other biological products, if not registered by the BFA as an Allowed Input (see the register at [www.aco.net.au](http://www.aco.net.au) or contact the CO) the onus is on the operator to ensure that such products do not exceed allowances for presence of heavy metals, OPs, OCs and other contaminants including pathogens. Such onus shall include regular testing of each batch used. Registered products have been independently verified and regularly tested and do not require such further testing by the end user.

**A** = Allowed     **R** = Restricted     **P** = Prohibited

**AOS** = Australian Organic Standard

**USDA** = United States Department of Agriculture National Organic Program

**JAS** = Japanese Organic Standard (MAFF)

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
<b>A</b>				
<b>Algae</b>	<b>R</b>	<b>R</b>	<b>R</b>	Natural or organic forms acceptable
<b>Animal bi-products and materials</b>	<b>R</b>	<b>R</b>	<b>R</b>	Includes meatmeal, bone meal and urine. Ideally fully composted prior to use. Also see separate listings under 'Manures.' Leather bi-products are prohibited. Application of abattoir by products is only allowed in restricted instances for use as fertiliser on areas where ruminants or herbivore livestock are to be grazed. NB – all products prohibited for crops bound for UK Soil Association market relabelling
<b>Aquatic plant products</b>	<b>R</b>	<b>R</b>	<b>R</b>	Natural (non-synthetic) extracts are allowed. Extraction and stabilisation with most synthetic solvents is prohibited, exceptions are for potassium hydroxide and sodium hydroxide. Aquatic plant products are usually prohibited if they contain other synthetic preservatives, such as formaldehyde, are fortified with otherwise prohibited plant nutrients or are from environments where high levels of heavy metals or other contaminants are residual in plant tissue or breakdown products
<b>Arsenate treated timber</b>	<b>R</b>	<b>R</b>	<b>R</b>	Includes copper-chromium arsenate. Arsenate treated timber cannot be in contact with soil used to grow vegetables (boxed beds). If fence posts are treated, an appropriate distance shall be maintained between posts and crops or vines so as to prevent contamination – see Section 4.8. This may require verification by operator. New additions of such treated timbers into orchards, vineyards, etc shall only be allowed in restricted instances of no sustainable alternatives available
<b>Ash</b>	<b>R</b>	<b>R</b>	<b>R</b>	Ash from untreated plant sources only. Wood stove ash is allowed only if not contaminated with coloured paper, plastics or other synthetic

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
				substances. Operators who use ash obtained from off-farm sources may be required to obtain an analysis of contaminants, including arsenic, cadmium, chromium & lead
<b>Azadirachta indica</b>	R	R	R	See "Neem".
<b>B</b>				
<b>Bacillus thuringiensis</b>	A	A	A	Formulations that are genetically engineered are prohibited. Check supplier
<b>Basalt</b>	A	A	A	
<b>Beneficial organisms</b>	A	A	A	Including but not limited to: viruses, bacteria, protozoa, fungi, insects, nematodes, plants and animals. No genetically engineered organisms are allowed
<b>Biodynamic preparations</b>	A	A	A	
<b>Biological controls such as microbes or insects</b>	A	A	A	No genetically engineered organisms
<b>Biosolids</b>	R	R	R	See Standard Section 4.4
<b>Blood and Blood Meal</b>	R	R	R	See animal biproducts
<b>Bones and Bone Meal</b>	R	R	R	See animal biproducts
<b>Borates</b>	R	R	R	See "Boron products" for regulations
<b>Bordeaux mixes</b>	R	R	R	See "Copper products" for regulations
<b>Boric acid</b>	R	R	R	See "Boron products" for regulations
<b>Boron products</b>	R	R	R	May be used as a micronutrient with a documented deficiency or observed need with a plan to avoid nutrient imbalances. See Micronutrients
<b>Botanical pesticides</b>	R	R	R	Botanical pesticides must be part of a biorational pest management program, and cannot be the primary method of pest control in the OMP. The least toxic botanicals must be used in the least ecologically disruptive way possible. Restrictions and directions must be followed, including crops, livestock, target pests, safety precautions, pre-harvest intervals and worker re-entry. Pure nicotine and tobacco products are prohibited
<b>Burgundy mixes</b>	R	R	R	See "Copper products"
<b>C</b>				
<b>Calcium carbonate</b>	A	A	A	See "Limestone"
<b>Calcium</b>	A	A	A	Natural sources or naturally derived sources – eg limestone
<b>Calcium sulphate</b>	R	R	R	See "Gypsum"
<b>Carbon dioxide gas</b>	R	R	R	Permitted for post-harvest
<b>Cardboard</b>	R	R	R	Unwaxed, not impregnated with synthetic fungicides. Recycled sources are restricted when used for mulch or compost feedstock, due to potential for contamination from residual industrial chemicals
<b>Chelates (natural)</b>	R	R	R	Natural chelates, including but not limited to amino acids, citric acid, tartaric acid, and other di- and tri- acid chelates, and lignin sulphonate are allowed
<b>Clay</b>	A	A	A	Bentonites, Kaolin
<b>Compost</b>	A	A	A	Aerobic or anaerobic – see Section 4.3
<b>Compost tea</b>	A	A	A	Compost used for tea must be made from material which meets compost standards and does not pose end biological or other

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
				contamination risks to crops or stock
<b>Copper products</b>	R	R	R	Bordeaux mixes, copper hydroxide, copper sulphates. Copper oxychloride is prohibited. Copper cannot be used as an herbicide and shall be used in a manner that prevents excessive copper accumulation in the soil. Copper application up to 8 kg/Ha is permissible as a restricted input (exempted in cases of documented deficiency in soil)
<b>Cotton gin trash</b>	R	R	R	Must be certified organically grown or thoroughly composted before being incorporated into the soil. Verification of non contamination by operator shall be required, including non GMO status of original cotton
<b>Coprmeal</b>	R	R	R	Assessed for no contaminants
<b>Cottonseed meal</b>	R	R	R	Use only if certified organically grown, documented to be residue-free or thoroughly composted prior to use. Note no use of GMO cotton source allowed
<b>D</b>				
<b>Diatomaceous earth</b>	A	A	A	
<b>Dolomite, Mined</b>	A	R	R	Magnesium carbonate and calcium carbonate. May cause build-up and imbalance of magnesium. Use with caution and assess in terms of overall soil profile, particularly Ca levels. Must be from a natural source
<b>Dunder</b>	R	R	R	Must be from certified sources or batch tested and verified to be contamination free
<b>E</b>				
<b>Effluent – from certified organic dairies and piggeries</b>	R	R	R	Where source is verified not to lead to on-farm contamination and where there has been prior digestion or modification of such effluent to ensure that its use on soils will not lead to soil contamination or poisoning. Application shall be part of a holistic soil management plan. Not for direct use on edible crops
<b>Enzymes</b>	R	R	R	Acceptable if derived microbiologically from natural and non GE materials and not fortified with synthetic plant nutrients
<b>Epsom salts</b>	A	A	A	Magnesium sulphate
<b>Equipment cleaners</b>	R	R	R	Allowed equipment cleaners include acetic acid, carbonic acid, citric acid, hydrogen peroxide, soap and water
<b>F</b>				
<b>Feldspar</b>	R	R	R	See "Mined minerals"
<b>Fertilisers, Blended</b>	R	R	R	Only permitted where listed in this Standard. Operators using blended fertilizers containing restricted ingredients must adhere to the regulations for all of the restricted ingredients
<b>Fish emulsions</b>	R	R	R	See "Fish products"
<b>Fish meal</b>	R	R	R	See "Fish products"
<b>Fish products</b>	R	R	R	Fish products are prohibited if they contain synthetic preservatives or are fortified with otherwise prohibited plant nutrients (eg Urea)
<b>Foliar sprays</b>	R	R	R	Prohibited if product contains any prohibited materials. Shall be supplementary to soil amendments and conditioners. Foliar feeding programs are not a substitute for a holistic soil building program

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
<b>Fruit Wax</b>	R	R	R	Must not contain prohibited substances. Carnauba or wood extracted wax are acceptable. Products coated with wax must be indicated as such on the shipping container or packaging and comply with importing country requirements. Note – not acceptable for EU market
<b>G</b>				
<b>Garlic</b>	A	A	A	
<b>Granite dust</b>	A	A	A	See "Mined minerals"
<b>Grape marc</b>	R	R	R	Assess source for contaminants
<b>Greensand</b>	A	A	A	Potassium silicate: See "Mined minerals"
<b>Guano (bat or bird)</b>	R	R	R	Must be from certified sources or sources deemed to be acceptably low in heavy metals and other potential contaminants. Shall be used in addition to general slow release soil amendments and where need is demonstrated. Domesticated fowl excrement is considered 'Manure', not 'Guano'. See "Manures, Raw" for restrictions on bat or bird manure
<b>Gypsum</b>	R	R	R	Only mined forms are acceptable which have not been chemically synthesised or modified, nor be the byproduct of synthetic processes
<b>H - J</b>				
<b>Homeopathic preparations</b>	A	A	P	Note should be taken of conformance of materials with this Standard. Note Japan does not allow homeopathic preparations for soil conditioning or fertilising
<b>Hoof and horn meal</b>	R	R	R	Not to be applied on areas of land where ruminants or herbivores are grazed. Note animal products above
<b>Humates</b>	R	R	R	Humates are usually natural deposits which are mined and may have high trace mineral content. To be applied as part of a holistic soil development program only and shall comply with this standard in regard to production process
<b>Inoculants</b>	R	R	R	See "Microbial products"
<b>Insect extracts</b>	A	A	A	Biological products, where there are no additions of prohibited inputs
<b>K</b>				
<b>Kelp extracts</b>	R	R	R	See "Aquatic plant products"
<b>Kelp meal</b>	A	A	A	
<b>Kocide</b>	R	R	R	See "Copper products"
<b>L</b>				
<b>Langbeinite</b>	A	A	A	Also known as "Sulphate of potash - magnesia" See "Mined minerals"
<b>Lime Sources</b>	A	A	A	Including oystershell flour, dolomite, aragonite, sugar lime and mined CaCO <sub>3</sub> and hydrated lime
<b>Lime Sulphur</b>	R	R	R	Includes Calcium Polysulphide. Foliar application as a fungicide is restricted. May be used as an insecticide in restricted instances. Note potential impact on beneficials
<b>M</b>				
<b>Magnesium carbonate</b>	A	A	A	Naturally occurring in dolomite and magnesite
<b>Magnesium sulphate</b>	A	A	A	Kieserite or epsom salts

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
<b>Manures, Composted</b>	R	R	R	Must be aerobically or anaerobically composted. See "Compost" and Section 4.3 of Standard. Manures shall not be sourced from factory farming sources
<b>Manures, Raw</b>	R	R	R	Sheet composting is allowed under strict conditions only – see Section 4.1.3 (b) or where arising from direct stock grazing. Withholding periods required before access is allowed for livestock for grazing
<b>Microbial inoculants</b>	R	R	R	See "microbial products"
<b>Microbial products</b>	R	R	R	Microbial products may be used on compost, plants, seeds, soils and other components of the agroecosystem. Allowed materials include Rhizobium bacteria, mycorrhizal fungi, yeast and other microorganisms. Genetically engineered organisms or viruses are not allowed. Microbial products are prohibited if the final product contains synthetic preservatives such as sodium sulphite, or if they are fortified with otherwise prohibited plant nutrients. Micro counts are required where food safety issues are present – eg edible portions of crops
<b>Micronutrients</b>	R	R	R	Use is allowed only for a documented or observed need with a plan to avoid nutrient imbalances. Trace elements made from nitrates or chlorides are not allowed. May not be used as defoliants, herbicides or desiccants. Micronutrients include: boron, cobalt, copper, iodine, iron, manganese, molybdenum, selenium, zinc
<b>Milk, Liquid or dried</b>	A	R	A	Use must not lead to contamination or other environmental or soil biota impacts. Must not come from GMO sources including for US BST hormone
<b>Mill Mud</b>	R	R	R	See Mud
<b>Mined minerals</b>	R	R	R	A mined mineral must not have undergone a synthetic chemical change process. Acceptable if the material is not processed or fortified with synthetic chemicals. Mined minerals are regarded as supplements to a balanced organic soil building program. Some of the minerals which are mined can also be made synthetically or are byproducts of industry, which are not permitted, hence investigate the source of any new material. Note potential contamination from heavy metals – content of which should be checked prior to use and conform with guidelines for heavy metals
<b>Molasses</b>	R	R	R	Shall not allow organochlorine and other contaminating residues to accumulate. This may include requirements for testing
<b>Mud</b>	R	R	R	And related sugar by-products from processing. Allowed from certified sources. Restricted where sourced from (BFA) unregistered sources and shall be verified to fall within requirements laid out in Table 4.8a
<b>Mulches</b>	R	R	R	Chemical residue testing of non-certified sources may be required. Certified and/or registered AI products preferred, and required where contact with certified end product is possible
<b>Mushroom compost</b>	R	R	R	May contain substantial pesticide residues if obtained from non-organic mushroom houses. Must be from certified organically grown mushroom production systems, verified free of contaminants, or re-composted prior to use. See "Compost" for guidelines

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
<b>N - O</b>				
<b>Neem extract</b>	R	R	R	Powder and seeds. See "Botanicals" for restrictions.
<b>Neem Cake/Meal</b>	A	A	A	Used as a soil amendment or fertiliser
<b>Nicotine</b>	P	P	P	<i>Prohibited</i>
<b>Oils</b>	R	R	R	See "Petroleum Distillates"
<b>P</b>				
<b>Paper</b>	R	R	R	Glossy paper and coloured ink are prohibited
<b>Peat moss</b>	R	R	R	Only allowed in nursery production
<b>Perlite</b>	A	A	A	
<b>Petroleum distillates</b>	R	R	P	Regulated to narrow-range (light) petroleum derivatives. Allowed for use in organic production as suffocating oils on foliage, as dormant or summer oils, and as inert ingredients. Direct application to harvested crop is prohibited. Note not listed as allowed under Japanese Standard
<b>Pheromones</b>	A	A	A	May not be combined with synthetic pesticides nor be from GMO sources
<b>Phosphate rock</b>	R	R	R	Must not be fortified or processed with synthetic chemicals. Must be low in cadmium
<b>Plant extracts</b>	R	R	R	Allowed where extracted naturally. Extractants include cocoa butter, animal fats, alcohols and water where there is not potential contamination of end product
<b>Plant Products</b>	A	A	A	Includes plant preparations, extracts, parts and teas. Parts of plants which have specific uses in pest control or fertility such as marigolds, sesame chaff, garlic, and equisetum (horsetails) are permitted. Crop wastes that potentially contain significant levels of pesticide contaminants are regulated. Eg see 'Cotton Gin Trash'.
<b>Plastics for mulch and solarisation</b>	R	R	R	Must not be incorporated into soil or left in field to decompose. Must be removed at the end of the growing season and/or managed to ensure protection of soil microbiological life, while being disposed of in environmentally sound ways. Weed mat is allowed where it allows free movement of air into the soil. Polyvinylchloride forms prohibited. See also 4.8
<b>Pomace</b>	R	R	R	Must be from certified organically grown fruits, documented free of contaminants or aerobically composted prior to use
<b>Potassium bicarbonate</b>	A	A	P	
<b>Potassium gluconite</b>	A	A	A	
<b>Potassium soap</b>	R	R	R	Pest and disease management
<b>Potassium sulphate</b>	R	R	R	Mined natural sources
<b>Propolis</b>	A	A	A	
<b>Pyrethrins</b>	R	R	R	Only naturally occurring and naturally derived forms are allowed. Synthetic pyrethroids are prohibited. Biorational approach to use required due to broad spectrum nature of product. Please note that any Pyrethrins containing Piperonyl Butoxide (PB) as a synergist cannot be used from 1 <sup>st</sup> January 2006.
<b>Q - R</b>				
<b>Quassia</b>	R	R	R	Extracted from Quassia armara

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
<b>Rock Dusts</b>	A	A	A	See "Mined Minerals"
<b>Rodent traps</b>	A	R	R	Mechanical traps are acceptable
<b>Rotenone</b>	R	R	R	See "Botanical pesticides" for restrictions
<b>Ryania</b>	R	R	R	See "Botanical pesticides" for restrictions
<b>S</b>				
<b>Sawdust, Bark &amp; Wood waste</b>	R	R	R	From untreated sources. Imported timbers not allowed
<b>Seaweed</b>	A	A	A	See "Aquatic plant products"
<b>Slurry</b>	R	R	R	From certified sources. Composting and testing shall be required for non-certified sources
<b>Soap, Insecticidal</b>	R	R	R	Insecticidal soaps consisting of fatty acids naturally derived from animal or vegetable oils are restricted for use. May also be used as adjuvants/wetters (spreader-stickers, surfactants and carriers)
<b>Sodium bicarbonate</b>	A	R	R	Pest and disease management
<b>Sodium molybdate</b>	R	R	R	To correct documented molybdenum deficiencies. See Micronutrients
<b>Sodium silicate</b>	A	A	A	As a fungicidal
<b>Sticky barriers and traps</b>	A	A	A	May not be combined with otherwise prohibited synthetic pesticides
<b>Stonemeal</b>	A	A	A	
<b>Straw</b>	A	A	A	Mulch from non-contaminated source – uncertified sources must not have contact with edible portions of crop
<b>Sugar</b>	A	R	R	Preference for certified sources
<b>Sugar lime</b>	A	R	R	Calcium carbonate produced from the processing of beets or cane into sugar
<b>Sulphate of potash</b>	R	R	R	Natural sources
<b>Sulphates of zinc or iron</b>	R	R	R	May be used only to correct for deficiencies determined by soil or plant tissue testing
<b>Sulphur</b>	R	R	R	Natural sources
<b>T</b>				
<b>Trace minerals</b>	R	R	R	Natural. Includes micronutrients from natural sources that are unchelated or chelated by allowed materials. See Micronutrients
<b>Transplants (annuals)</b>	R	R	R	Restricted where not grown organically
<b>Transplant media</b>	R	R	R	Allowed if composed entirely of allowed materials. See classification for each separate ingredient
<b>Treated seed - natural forms</b>	R	R	R	Seeds treated with naturally occurring biological control agents, or pelletized with non-synthetic coatings such as clay are allowed. Genetically modified organisms are prohibited. Prohibited seed treatments may contain fungicides, pesticides or heavy metals. Application must be made to CO prior to use of any substances not listed in this Standard.
<b>U - V</b>				
<b>Vegetable oils</b>	R	R	R	Spreader-stickers, surfactants and carriers. Plant oils may not contain synthetic pesticides and shall be GMO free
<b>Vermiculite</b>	A	A	A	
<b>Vinegars</b>	R	R	P	For pest control. Natural sources
<b>Virus sprays</b>	A	R	R	No genetically engineered viruses are allowed

ANNEX 1	AOS	USDA	JAS	CROP PRODUCTION INPUT NOTES
<b>Vitamins</b>	R	R	R	Non-synthetic (natural) sources of all vitamins and synthetic sources of vitamins B1, C and E may be used in certified organic crop production
<b>W - Z</b>				
<b>Wax – Carnauba</b>	R	R	R	Citrus. Note restrictions or prohibitions of some importing countries
<b>Wetting agents</b>	R	R	R	Natural wetting agents, including saponins and microbial wetting agents are allowed. Polyacrylamides and other synthetic wetting agents are prohibited
<b>Wood ash</b>	R	R	R	Allowed if from a naturally occurring material. Wood stove ashes must be free of contaminants from coloured paper, plastic, etc. See “Ash”
<b>Worm castings and worm liquid</b>	R	R	R	Certified sources are allowed or if on-farm production, a management program shall be in place to manage food safety issues (chemical and biological contaminants)
<b>Yeast</b>	A	A	A	See “Microbial products”
<b>Zeolites</b>	A	A	A	
<b>Zinc Sulphate</b>	R	R	R	To correct deficiencies

## ANNEX II: LIVESTOCK TREATMENTS & INPUTS

Materials used in livestock production have one of the following designations:

**ALLOWED (A)** materials may be used on animals in the certification program. Many allowed materials contain advisory information on their use. Allowed materials must still be used only under the guidelines set by appropriate authorities.

**RESTRICTED (R)** materials are allowed by certifier only with certain restrictions and only if no alternatives are feasible. The use of these materials is discouraged. Efforts to reduce or eliminate the use of restricted materials are required in the Organic Management Plan.

**PROHIBITED (P)** materials may not be used on livestock in the certification program. In the case of slaughter animals, the use of a prohibited material requires separation of these animals from certified organic stock. In the case of breeding, dairy, laying or fibre producing animals, an adequate withdrawal or transition time must occur. These withdrawal periods are contained in Table 4.6a or are contained in the following materials list.

**NOTE – JAPAN (JAS) MARKET DOES NOT SPECIFY CRITERIA FOR LIVESTOCK AT TIME OF PRINT.**

Note also that for the US market only there may be additional products allowed – listed under the USDA NOP – for product access to that market. Note however needs to be made of overriding legal requirements (eg Australian Export Orders) for producers certified within Australia to also comply to the Australian Export Orders.

ANNEX II	AOS	USDA	JAS	LIVESTOCK TREATMENT INPUT NOTES
<b>A</b>				
<b>Acetic acid</b>	R	R		Includes cider vinegar from certified source
<b>Alcohol</b>	R	R		Ethyl, methyl (methylated spirits) and isopropyl alcohol are allowed in medications and topically as disinfectants only
<b>Amino Acids</b>	R	R		Pure forms are not allowed
<b>Anaesthetics</b>	R	R		Conventional withholding periods apply
<b>Antibiotics</b>	P	R		May be used to treat specific maladies in livestock, but shall not be used routinely. Treated meat animals shall require permanent withdrawal from certification. See Table 5a for medications policy. See US for specific criteria for use
<b>Aquatic plant products</b>	R	R		Shall require verification that no contamination may occur or is residual in tissue of imported product
<b>B</b>				
<b>Bentonite</b>	R	R		
<b>Biotin</b>	R	R		See "Vitamins"
<b>Biological Controls</b>	A	A		No GE products or products derived from GE
<b>Brewer's Yeast</b>	R	R		Not from GE sources
<b>Botanical insecticides</b>	R	R		Eg pyrethrum, quassia, neem, garlic. Pure nicotine and strychnine prohibited
<b>C</b>				
<b>Charcoal</b>	A	R		Ensure source does not contain contaminating elements such as OCS or heavy metals
<b>Cleaning agents</b>	R	R		Includes alcohol, soap, water
<b>Cobalt</b>	R	R		See "Minerals"
<b>Copper sulphate</b>	R	R		For topical use and as an essential nutrient
<b>D - F</b>				
<b>Diatomaceous earth</b>	R	R		Free of crystobolite (< 0.01%)
<b>Dolomite</b>	A	A		

ANNEX II	AOS	USDA	JAS	LIVESTOCK TREATMENT INPUT NOTES
<b>Electrolytes</b>	R	R		May not contain antibiotics or other prohibited substances
<b>Epsom salts</b>	A	A		See "Magnesium sulphate"
<b>Fish liver oil</b>	R	R		
<b>Fluorosilicate</b>	R	R		Magnesium form
<b>Folic acid</b>	R	R		See "Vitamins"
<b>G - K</b>				
<b>Herbal preparations</b>	R	R		Herbs and herbal preparations taken internally by livestock must be certified organically grown and prepared
<b>Homeopathic preparations</b>	R	R		Ingredients must comply with this Standard
<b>Hydrogen peroxide</b>	A	A		
<b>Iodine</b>	A	A		Allowed as a feed supplement and as a topical disinfectant
<b>L - N</b>				
<b>Lime-Sulphur</b>	A	A		
<b>Magnesium Fluorosilicate</b>	R	R		
<b>Magnesium sulphate</b>	R	R		
<b>Meat Meal</b>	R	P		Prohibited for ruminants and herbivores. In US prohibited for all animal feeds
<b>Mineral oil</b>	R	R		
<b>Minerals, Non-synthetic</b>	A	A		Includes mined minerals
<b>Minerals, Synthetic</b>	R	R		Limited to those approved for animal use in cases of documented deficiency. Shall not contain contaminants or prohibited substances
<b>Molasses</b>	R	R		Non-organic molasses is allowed as a feed supplement where no organic molasses is available. US requires certified sources only
<b>Newspaper</b>	A	A		Allowed for bedding. Glossy paper is prohibited
<b>Nicotine</b>	<u>P</u>	<u>P</u>		
<b>O - R</b>				
<b>Oils - vegetable</b>	R	R		May be used for external treatments or in combination with external treatments. Internal use requires certified product as part of feed ration
<b>Potassium permanganate</b>	R			For disinfecting livestock facilities only. Post wash down with clean water required
<b>Probiotics</b>	R	R		
<b>Pyrethrins</b>	R	R		Only naturally occurring and naturally derived forms are allowed. Synthetic pyrethroids are prohibited. Biorational approach to use required due to broad spectrum nature of product. Please note that any Pyrethrins containing Piperonyl Butoxide (PB) as a synergist cannot be used from 1 <sup>st</sup> January 2006.
<b>S - T</b>				
<b>Salt Licks</b>	R	R		Not containing urea or other prohibited substances, including potential GMOs – such as from cotton seed
<b>Seaweed</b>	R	P		Natural or organic sources only
<b>Selenium</b>	R	R		May be fed or injected to livestock to treat for documented deficiencies
<b>Shell Grit</b>	A			
<b>Soap</b>	R	R		May be used as a disinfectant for livestock and facilities

ANNEX II	AOS	USDA	JAS	LIVESTOCK TREATMENT INPUT NOTES
<b>Sodium chloride</b>	R	R		Allowed as a feed supplement. Mineral forms preferred
<b>Sulphur</b>	A	A		Internally & externally for parasites
<b>Tallow</b>	R	R		Not as internal treatment for ruminants or herbivores
<b>U - V</b>				
<b>Vitamins</b>	R	R		Limited to those approved for animal use in cases of documented deficiency. Shall not take the place of proper pasture management
<b>Vaccines</b>	R	R		May be used for specific diseases which are known to exist on the farm or in the region, or where there is a mandate from relevant authorities. Broad spectrum vaccines not allowed (such as 7 in 1, etc), unless otherwise essential. Separate vaccines otherwise required to be sourced
<b>W - Z</b>				
<b>Water</b>	A	A		Quality potable water for drinking
<b>Zinc Sulphate</b>	R	R		Mineral lick

# EXPLANATION TO ANNEXES FOR PROCESSING AIDS & ADDITIVES, AND CLEANSERS, DISINFECTANTS & SANITISERS

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Inputs into the system are generally prohibited if synthetically compounded – which is defined as a process which chemically changes a material extracted from naturally occurring plant, animal or mineral resources, excepting microbiological processes.

Assessment of materials shall take into consideration environmental aspects, as well as social welfare issues where relevant to the production process. The Precautionary Principle shall at all times be exercised in relation to scientific assessment of materials.

The materials list included in this Standard is by no means comprehensive but is a positive, rather than a negative list. It does not include notification of materials which are obviously prohibited, such as synthetically derived chemicals.

Additions to allowed or restricted inputs or practices may be assessed by the Standards Subcommittee of the BFA at the request and written submission of the operator by completion of the appropriate form (see the BFA website and the National Standard for Organic and Biodynamic Produce). Such assessments may require ratification by the National Standards Sub Committee, chaired by the Australian Quarantine and Inspection Service (AQIS), may take some time to assess and are not guaranteed to succeed. Assessment and approval of inputs is based upon other international regulations and the principles of the Standard.

Materials are listed as Allowed, Regulated/Restricted or Prohibited.

It is the certified operator's responsibility to determine if a material is listed in the following Annexes as acceptable for use in organic processing. Look for BFA registered products – which bear the licensed BUD logo – for your assurance of conformance with this Standard. Please note that claims as to “organic” on packaging are not sufficient to verify the conformance of such products with this Standard.

Note that approved input products are not endorsed by the BFA or ACO for technical performance but for conformance with this Standard and certain international organic standards and guidelines only.

It should be noted that some materials listed for use in organic processing may not be registered for relevant crop use under State, Federal or International regulation or under other organic certification programs or standards. Onus is on the user to ascertain the legal status of a given input for specific uses.

**Input Status:** Materials used as Processing Aids, Additives, Cleansers, Disinfectants and Sanitisers

**ALLOWED (A)** materials may be used in organic processing under the ACO certification program.

**RESTRICTED (R)** materials may be used in organic processing under the ACO certification program only in restricted instances. Several restricted materials are discouraged in organic processing, and they may be used only if no alternatives are feasible. In many cases, the permitted use of these materials is dependent on the specific source, and demonstration that the material is free from contamination. Efforts to reduce or eliminate the use of restricted materials may be required as part of the certified operator's Organic Management Plan and routine use shall require verification of ongoing requirements.

**PROHIBITED (P)** materials may not be used in organic processing under the ACO certification program,

- At all times GMOs are prohibited from use in organic processing.

**Note, this Standard is a POSITIVE LIST Standard – meaning only those products listed as expressly acceptable for use may be utilised within the organic processing system.**

**Any materials not listed in these Annexes require written confirmation from the CO as to their allowed status. Onus is on the operator to ensure inputs comply with this Standard.**

**Onus is on the certified operator wishing to have access also to other exclusive markets such as the US to ensure that they are compliant exactly with the detail of such relevant standards – in the US case – USDA NOP (2002). In some instances this and other standards will override or take precedence over the list of products in the following Annexes.**

**Further, whilst products may be listed in this Standard for use within organic processing systems, this assumes that the certified operator has also ensured that such products and the use of such products also comply with other relevant state or regulatory body requirements in regard to the use of such products.**

## ANNEX III: PROCESSING AIDS & ADDITIVES

Materials allowed in organic processing include organic ingredients, allowed non-organic ingredients, allowed additives and allowed processing aids. See Section 6 for the Processing Standard. The following list contains materials that are explicitly allowed, restricted, or prohibited for use as ingredients, additives, or processing aids. Any material allowed as an ingredient is also allowed as an additive, processing aid, cleanser, or pest control.

Note that many ingredients are not listed here. Written permission must be obtained from the CO for products not listed below or not clearly specified as conforming to this Standard.

**How to use this Annex:** Dependent upon certification status sought the list below notes whether or not you are permitted to use such products listed in your certified processing operation.

**A** = Allowed      **R** = Restricted      **P** = Prohibited

**AOS** = Australian Organic Standard, **USDA** = USDA National Organic Program, **JAS** = Japanese Organic Standard (MAFF)

### List of abbreviations used in the tables:

C – cereal products  
 CB – cakes and biscuits  
 CO – confectionary  
 F – fat products  
 FV – fruit/veg. products  
 GA – generally unrestricted  
 M – milk products  
 ME – meat products  
 S – sugar  
 SA – saponification  
 SO – soybean products  
 W – wine

### Permitted conventional (non certified) ingredients are restricted to the following:

- Naturally occurring substances of agricultural origin which cannot be sourced from commercially viable certified sources (in such instances the Organic Management Plan must outline how attempts will be made to source organic certified as this becomes available);
- Other products as listed in this Standard as Allowed;
- Non GMO products or those not arising from GE processes;
- Non ionising irradiated products;
- Total ingredients adding up to less than 5% mass/mass of end certified product (not including water and salt). NB the 5 % does NOT permit any or all non organic ingredients. This rule is extremely restrictive and onus is on the operator to ensure that confirmation is obtained in writing from ACO prior to utilising new ingredients or recipes for which certification is sought;
- Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used unless their use is legally required or where severe dietary or nutritional deficiency can be demonstrated;
- Drinking (potable) water;
- Salt (sodium chloride and potassium chloride as the basic components).

### Preparations of Micro-organisms and Enzymes

These may be used as processing aids with approval based on the Procedure to Evaluate Additives and Processing Aids for Organic Food Products. See also Section 3.5 regarding ingredients.

- Preparations of micro-organisms accepted for use in food processing. Genetically modified organisms are excluded. Processors must use micro-organisms grown on substrates that consist entirely of organic ingredients and substances listed in Appendix 3, if available. This includes cultures that are prepared or multiplied in house.
- Bakers yeast produced without bleaches and organic solvents.

### Flavouring and Colouring Agents

- Volatile (essential) oils produced by means of solvents such as oil, water, ethanol, carbon dioxide and mechanical and physical processes are permitted.
- Natural smoke flavour is permitted.
- Natural flavouring and colour preparations where approval is based on the Additives and Processing Aids Selection Criteria – see Section 9.

## ADDITIVES

INT'L NO. SYSTEM	PRODUCT	USE	LIMITATION/NOTE*		
			AOS	USDA	JAS
INS 170	Calcium carbonate	GA			
INS 220	Sulphur dioxide	W	As per AOS specifications – wine only.	P unless only marketed as “organically grown grapes”	N/A – wine not yet specified in the JAS Standard
INS 224	Potassium metabisulphite	W	As above per 220.	P	N/A
INS 270	Lactic acid	FV	Concentrated fruit/veg. Juice and fermented veg. Products		
INS 290	Carbon dioxide	GA			
INS 300	Ascorbic acid	GA	If not available in natural form		
INS 306	Tocopherols, mixed natural concentrates	GA			P
INS 322	Lecithin	GA	Obtained without use of bleaches and organic solvents		
INS 330	Citric acid	FV/W	For wine, restricted to 1 gm/L		For wine: N/A
INS 331	Sodium citrates	ME			N/A
INS 332	Potassium citrates	ME			N/A
INS 333	Calcium citrates	ME			N/A
INS 334	Tartaric acid	W			N/A
INS 335	Sodium tartrate	CO/CB			
INS 336	Potassium tartrate	C/CO/CB			P
INS 341	Mono calcium phosphate	C	For raising flour		P
INS 342	Ammonium phosphate	W	Restricted to 0.3gm/L		P
INS 406	Agar	GA			
INS 407	Carrageenan	GA			Natural
INS 410	Locust bean gum	GA			Natural
INS 412	Guar gum	GA			
INS 413	Tragacanth gum	GA			
INS 414	Gum Arabic	MI/F/CO			
INS 415	Xanthan gum	F/FV/CB			
INS 440	Pectin	GA	Unmodified		
INS 500	Sodium carbonates	CO/CB			
INS 501	Potassium carbonates	C/CO/CB			
INS 503	Ammonium carbonates	C/CO/CB			
INS 504	Magnesium carbonates	C/CO/CB			
INS 508	Potassium chloride	FV	Only frozen and canned fruit/veg., veg. Sauces, ketchup, mustard		
INS 509	Calcium chloride	MI/F/FV/S O			
INS 511	Magnesium chloride	SO		Derived from seawater	
INS 516	Calcium sulphate	CB/SO/C	For 'C' - only in baker's yeast		
INS 517	Ammonium sulphate	W	Restricted to 0.3gm/L		P
INS 938	Argon	GA			P
INS 941	Nitrogen	GA			
INS 948	Oxygen	GA			

## PROCESSING AIDS

INT'L SYSTEM	NO.	PRODUCT	USE	LIMITATION/NOTE*		
				AOS	USDA	JAS
INS 170		Calcium carbonate	GA			
INS 181		Tannin	W			N/A
INS 184		Tannic Acid	W			N/A
INS 220		Sulphur dioxide	W	Note country restrictions	P	N/A
INS 270		Lactic acid	ME			
INS 290		Carbon dioxide	GA			
INS 330		Citric acid	FV/W	For wine, restricted to 1 gm/L		For wine: N/A
INS 322		Lecithin	CO/CB			
INS 501		Potassium carbonate	FV/W			
INS 513		Sulphuric acid	S	Note country restrictions		
INS 516		Calcium sulphate	GA			
INS 524		Sodium hydroxide	S/C			
INS 334-7		Tartaric acid & salts	W			N/A
INS 334		Tartaric acid	W			N/A
INS 335		Sodium tartrate	CO/CB			
INS 336		Potassium tartrate	C/CO/CB			P
INS 500		Sodium carbonate	S			
INS 501		Potassium carbonates	C/CO/CB			
INS 509		Calcium chloride	MI/F/FV/SO			
INS 511		Magnesium chloride	SO		From seawater	
INS 511		Magnesium chloride	SO			
INS 551		Silicon dioxide	W/FV			N/A
INS 901		Beeswax	GA			
INS 903		Carnauba wax	GA			
INS 941		Nitrogen	GA			
		Activated carbon	GA			
		Asbestos free filter materials	GA			
		Bentonite	FV/W			
		Casein	W			
		Diatomaceous earth	S/FV			
		Egg white albumen	W			N/A
		Ethanol	GA			
		Isinglass	W			N/A
		Kaolin	GA			
		Perlite	GA			
		Vegetable oil	GA	Non GMO		

## ANNEX IV CLEANSERS, DISINFECTANTS, AND SANITISERS

NOTE THAT SANITISERS SUCH AS THE FOLLOWING MAY BE USED, WHERE FOLLOWED BY EFFECTIVE RINSE OR VOLATISATION PROCEDURES PRIOR TO CERTIFIED PRODUCTS COMING IN CONTACT WITH TREATED SURFACES.

ANNEX 4	AOS	USDA	JAS	CLEANSERS, DISINFECTANTS, SANITISERS
Acetic acid	A	A	A	Allowed as a cleanser or sanitiser. Vinegar used as an ingredient shall be from an organic source, or verified to be non-contaminating.
Alcohol, Ethyl	A	A	A	Allowed as a disinfectant. Alcohol used as an ingredient in an organic processed product must be from an organic source.
Alcohol, Isopropyl	R	R	R	May be used as a disinfectant only when non-synthetic ethyl alcohol is not an acceptable substitute.
Ammonium sanitiser products	R	R	R	Includes quaternary ammonium sanitisers. Quaternary ammonium (quat) may be used on non-food contact surfaces. Prohibited for use on food contact surfaces, except for specific equipment where alternative sanitisers significantly increase equipment corrosion. Where quat is used by this exception, the quat application must be followed by detergent cleaning and rinsing procedures or volatisation. Equipment testing for quat residues must show no detectable residue prior to the start of organic processing. All residue testing procedures and results must be documented and filed.
Bleach	R	R	R	Includes calcium hypochlorite, sodium hypochlorite and chlorine dioxide. Allowed as a sanitiser on food contact surfaces, followed by a rinse/volatisation.
Calcium hypochlorite	R	R	R	
Chlorine dioxide	R	R	R	
Detergents	R	R	R	Allowed as equipment cleaners. Also includes emulsifiers, surfactants and wetting agents used as inert ingredients. Must be evaluated on a case-by-case basis.
Hydrogen peroxide	A	A	A	
Ozone	A	A	A	
Peracetic acid	A	A	A	Also known as "Periacetic acid".
Quat	R	R	R	See "Ammonium sanitiser products".
Soap	A	A	A	Washdown after application required with clean water.
Sodium hypochlorite	R	R	R	
Sodium Hydroxide	A	A	A	
Vinegar	A	A	A	

## ANNEX V - BIODYNAMIC STANDARD

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Note: References to the *Agriculture Course* refer to the lectures given by Rudolf Steiner to farmers at Koberwitz, Silesia (now Poland), 7 – 16 June 1924.

Farm, garden and horticultural management need to reflect an understanding of the principles presented in the *Agriculture Course* to enhance the continued development of soil and in turn the total farm and ecological system.

### Standards

1. The requirements laid out below are in addition to requirements specified for production systems in this Standard, most particularly Sections 3 to 5.
2. Preparation 500 (horn manure) must be used as part of the biodynamic management program and applied at a minimum annually to areas seeking certification or currently certified. Exemption needed from the certification office (CO) if not able to be carried out, with an outline of rationale.
3. Preparation 501 (horn silica) must be used as required (as a guide, in low light intensity situations to each crop and once per year to permanent and semi permanent plants such as pastures) as part of a farm rotational plan. Exemption needed from CO if not able to be carried out.
4. Compost preparations 502 – 507 must be used as required to direct fermentation processes in liquid manures and composts. .
5. Fertility programs to aim for development of natural soil fertility in accordance with the underlying principles of the *Agriculture Course*. Manure, liquid manures from farm animals - in particular cattle - plus composts of crop wastes and green manuring form the basis of fertilising together with management and the selective and directed use of Biodynamic compost preparations.
6. Any off-farm inputs, including manures, must go through a Biodynamic composting process. Exceptions are: lime, rock dusts and rock phosphates and mulching materials permitted in this Standard for pasture and crop land.
7. Quality and storage of the preparations: The preparations are to be in a suitable storage container away from fumes, electricity, contamination, heat and sunlight (except the 501 which is stored in glass in sunlight).
8. As a guide, preparations 500 and 501 should be stirred for one hour. Stirring to be by hand, machine stirring or flow forms, such that a vortex is achieved in alternating directions.
9. Preparations to be applied using uncontaminated, clean and dedicated equipment.
10. Detailed record keeping of Biodynamic practices to be kept and be available to ACO for inspection.
11. Processing and or packaging of Biodynamic product: Where the main component in a processed product is of certified Biodynamic origin and all other ingredients conform to this Standard, the product may be labelled as Biodynamic as long as all other marketing and labelling requirements comply with this Standard.

## Further Guidelines for Biodynamic Certification

### Soil and Soil Management:

In market gardening and horticulture, the use of compost made using Biodynamic compost preparations is essential for soil and plant health. It is anticipated that use of brought-in composted materials would cease by the time full certification is achieved.

The aim through time is to limit external inputs into the farming system, most particularly fertilisers and manures, such that the farming system becomes a “closed” and self sustaining ecological system, whilst ensuring sustainability and nutrient maintenance of the overall farming system.

For broadacre farming where compost making is not practised, the use of compost preparations on pastures, waste stubble and turned in green manures will help increase soil fertility and structure of grazing land and land under a grazing /cropping rotation.

### Plants and Plant Products:

Wild harvest cannot be certified Biodynamic unless the Biodynamic preparations, as per this Standard, have been applied to the areas used for harvest.

### Animal Care:

It is encouraged not to dehorn cattle which belong to breeds that are naturally horned. Keeping horned cattle may require different strategies in animal handling, so as not to cause stress or inflict injury to the animal.

### Brought in Stock:

Animals should be born and raised on a Certified Biodynamic farm as part of an indigenous herd. The bringing in of breeding stock from outside sources, other than certified Biodynamic or Organic livestock, is allowed up to a maximum of 10% per year. Preference is to be given to animals from certified Biodynamic farms. Animals brought onto the farm from certified Organic farms can be sold as Certified Biodynamic after a minimum period of 2 years under certified Biodynamic management. Animals brought onto the farm from non certified Organic or non certified Biodynamic sources can never be sold as Biodynamic. All animals have to be tagged and records kept with regard to stock and produce.

### Brought in Feedstuffs:

As a rule fodder produced on the certified farm forms the basis of animal nutrition. Feed shall arise from certified Biodynamic sources where sourced from off-farm. Complete self-sufficiency in fodder is the principle aim. If this is not feasible additional feed may be brought in.

# ANNEX VI – LOGO TYPES

The ACO BUD logo for certified organic products and the BFA BUD logo for registered allowed inputs or approved products must appear on labels and packaging only in the following formats, unless otherwise confirmed in writing from ACO office as acceptable prior to production and use – see also Section 3.5.

<p>ACO certified 'in conversion' to Organic – primary producers</p> 	<p>ACO certified 'A grade' Organic – primary producers</p> 	
<p>ACO certified 'in conversion' to Biodynamic – primary producers</p> 	<p>ACO certified 'A grade' Biodynamic – primary producers</p> 	
<p>ACO certified Organic Processor</p> 	<p>ACO certified Organic Wholesaler (Retailer: XXR)</p> 	
<p>BFA registered Allowed Inputs</p> 	<p>BFA registered Approved Products</p> 	
<p>IFOAM certified Organic</p> 	<p>JAS certified Organic</p> 	<p>USDA NOP certified Organic</p> 

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# ACKNOWLEDGMENTS

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The establishment Australian Organic Standard (AOS) 2006 has been based upon the work of the current BFA Standards Committee and Technical Subcommittees, active members of the BFA, the BFA and ACO (Australian Certified Organic Pty Ltd, BFA's certification subsidiary) office teams and the Australian and international organic and biodynamic industry and movement.

The ongoing series of this Standard would not be successful if it were not for the active involvement of BFA members, consumers and certified operators in submitting proposals and suggested amendments to the Standard. It is this representative approach that continues to win favour and which makes organic standards setting unique in the world. I urge all those with an interest in these matters to put forward their views in writing to the BFA and to continue this fine and proud tradition.

Representatives of, farmers, processors, wholesalers, retailers, consumers and input manufacturers have been consulted for this Standard, ensuring that key issues have been incorporated and that the Standard assists in effectively and pragmatically regulating organic production and handling in these respective sectors.

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The Requirements for Organic Certification

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