



Australian Certified Organic

Standard 2019 v.1

austorganic.com



TABLE OF CONTENTS

TABLE OF CONTENTS	1
1. SCOPE	3
2. DEFINITIONS	4
CERTIFICATION REQUIREMENTS: GENERAL	8
3. BASIC CERTIFICATION REQUIREMENTS	8
3.1. CERTIFICATION PROCESS	8
3.2. MAINTAINING CERTIFICATION	13
3.3. NON-COMPLIANCE AND CORRECTIVE ACTION REQUESTS	13
3.4. DOCUMENTS, RECORDS AND AUDIT TRAILS	15
3.5. LABELLING, PACKAGING, MARKETING MATERIAL AND INGREDIENT SPECIFICATIONS	16
3.6. PARALLEL PRODUCTION	18
3.7. CERTIFICATION TRANSFERENCE/RECOGNITION ARRANGEMENTS	19
3.8. DEFERRAL OF CERTIFICATION	19
STANDARDS REQUIREMENTS: GENERAL – PRIMARY PRODUCTION	20
4. GENERAL PRODUCTION STANDARD – PRIMARY PRODUCTION	20
4.1. SOIL FERTILITY AND HEALTH MANAGEMENT	20
4.2. BROUGHT-IN MATERIALS, STOCK AND EQUIPMENT	21
4.3. COMPOSTS	22
4.4. WATER MANAGEMENT AND ECOLOGY	23
4.5. PEST, DISEASE AND WEED MANAGEMENT	24
4.6. ENVIRONMENTAL MANAGEMENT AND SOCIAL POLICY	25
4.7. CONTAMINATION: SOILS AND PRODUCE AND BUFFER ZONES	26
SECTOR SPECIFIC REQUIREMENTS	29
5. LIVESTOCK PRODUCTION	29
5.1. LIVESTOCK MANAGEMENT – GENERAL	29
5.2. POULTRY – MEAT AND EGG PRODUCTION	34
5.3. PORCINE (PIG) PRODUCTION	36
5.4. DAIRY PRODUCTION	36
5.5. CAPRINE/GOAT PRODUCTION	37
5.6. MISCELLANEOUS INTENSIVE PRODUCTION ENVIRONMENTS	37
5.7. EXTENSIVE RANGELAND PRODUCTION	37
6. PROCESSING/PREPARATION	39
6.1. PRODUCTION FACILITIES, PROCESSES & PROCEDURES	39
6.2. ANIMAL PRODUCTS	42
6.3. DURABLE FOODSTUFFS	43
6.4. PERISHABLES (FRUITS, VEGETABLES) & WET PROCESSING	44
6.5. MISCELLANEOUS PROCESSED PRODUCTS	44
6.6. COSMETICS AND SKINCARE PRODUCTS	45
6.7. NATURAL FIBRES / TEXTILES	45
7. MISCELLANEOUS PRODUCTION SYSTEMS	47
7.1. HONEY AND BEE KEEPING	47
7.2. GREENHOUSES, NURSERIES AND SEED PRODUCTION	49
7.3. SPROUTS INCLUDING WHEATGRASS	50
7.4. MUSHROOMS	51
7.5. WILD HARVEST	51
7.6. SILVICULTURE / FOREST MANAGEMENT	52
7.7. AQUACULTURE	53
7.8. SPECIAL PROJECTS AND GROWERS GROUPS	55
7.9. FAIR TRADE – ETHICAL TRADE	57
8. MARKETING & HANDLING	61
8.1. RETAIL AND BUTCHER	61
8.2. WHOLESALER/EXPORTER/IMPORTER	62
8.3. RESTAURANTS AND PREPARED FOOD SUPPLIERS	63
8.4. TRANSPORT AND STORAGE OPERATIONS	63
8.5. FARMERS' MARKETS AND OTHER MARKETS	64
9. MANUFACTURED INPUTS, AIDS & ADDITIVES AND APPROVED SERVICES	65
9.2. AGRICULTURAL INPUTS – SELECTION CRITERIA	65
9.3. AIDS AND ADDITIVES – SELECTION CRITERIA	66
9.4. APPROVED SERVICES	66
9.5. LABELLING REQUIREMENTS FOR ALLOWED INPUTS AND APPROVED PRODUCTS	67

ANNEXES	68
EXPLANATION TO ANNEXES FOR CROP AND LIVESTOCK INPUTS & TREATMENTS	68
ANNEX I: CROP PRODUCTION INPUTS	70
ANNEX II: LIVESTOCK TREATMENTS & INPUTS	76
EXPLANATION TO ANNEXES FOR PROCESSING AIDS & ADDITIVES, AND SANITISERS	79
ANNEX III: PROCESSING AIDS & ADDITIVES	80
ANNEX IV: CLEANSERS, DISINFECTANTS, AND SANITISERS	83
ANNEX V: BIODYNAMIC STANDARD	85
ANNEX VI: ADDITIONAL REQUIREMENTS FOR EXPORTING TO THE EU	87
ANNEX VII: ADDITIONAL REQUIREMENTS FOR IFOAM CERTIFICATION	95
ACKNOWLEDGEMENTS	99

1. SCOPE

- 1.1 This Standard outlines the minimum requirements for certification of organic or biodynamic produce under the ACOS and use of the AO logo.
- 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:
- a. unprocessed products from plants, animals, cultured organisms and approved naturally occurring materials (excluding water and salt); and
 - b. 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, or are from **nanotechnology** products and processes.
- 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 Australian Pesticides and Veterinary Medicines Association (APVMA), which prescribes registration and exemption requirements.
- 1.5 This standard should be read in conjunction with other relevant standards for those planning to export, and additional auditing and certificates may be required for these markets. **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.**
- 1.6 **This Standard is current from 1st May, 2019** until such time as a new edition, or amendment, is released under the authority of Australian Organic. All changes to this Standard which differ from the *ACOS 2017* and subsequent amendments of the Standard shall be **implemented no later than 30th June 2019** without prior request and acceptance from the certification office (CO).
- 1.7 **Disclaimer:** Note should be taken at all times of amendments to this Standard which may occur from time to time. Such amendments will supersede existing respective clauses outlined in this Standard, with time frames for implementation outlined by the CO, 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. Australian Organic and the CO 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

Additives: Substances added to a product to affect its inherent quality.

Agricultural product: Any product or commodity (excluding water, salt and additives), raw or processed, derived from primary production activities, which is marketed for human consumption or animal feed.

Allowed (A): Input that may be used within an organically certified system without affecting certification. AO 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.

Animal testing: Testing of chemicals to assess safety, efficacy or environmental effects in non-human animals including vertebrates and invertebrates. Animal testing excludes in vitro tests, use of animal organs from animals slaughtered for the meat industry, or tests conducted with human volunteers.

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. An auditor must have, at a minimum, some or all of the following qualifications:

- academic degrees;
- qualifications and experience in farming, food processing, forestry, livestock production, input manufacturing; or
- auditing experience to HACCP, ISO9001, ISO1400.

Australian Organic Ltd: This organisation owns and manages the *Australian Certified Organic Standard*, being a not for profit group, owned by industry members and those with an interest in the organic sector.

Australian Pesticides and Veterinary Medicines Authority (APVMA): Federal organisation regulating the use of agricultural pesticides and livestock treatments for disease and pest control applications.

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

Biological Farmers of Australia Ltd (BFA): This is the prior name of Australian Organic Ltd. BFA originated in 1987 and changed its name in 2012.

Bud logo: The logo owned and registered with IP Australia as a Certification Trade Mark by AO, which is used on products certified to the ACOS,

Catalyst: A substance used in small quantities to accelerate chemical reactions without itself being affected.

Certified: To have been audited and subsequently licensed by an approved and recognised certifier in accordance with the *Australian Certified Organic Standard*.

Certification office (CO): Official office of an approved certifier which maintains licence agreements, coordinates audits and assesses ongoing conformance with the Standard.

Certification review committee (CRC): Committee within a certification body, 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.

Competent authority: A recognised government agency in a given country charged with managing an organic compliance program.

Compliance: Actions or outcomes which relate to meeting requirements of this Standard or of the operator's organic management plan (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 Certified Organic Standard*.

Conversion: See In conversion to organic.

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

COSMOS: The COSMetics Organic and Natural Standard is an international Standard for organic and natural cosmetics maintained by COSMOS-standard AISBL, an international non-profit association founded in June 2010 by five European certification bodies. Note that the requirements for this Standard and

certification program are specified in a separate text, which the certified operator must obtain and ensure compliance with, in order to maintain certification with the program. Further details on certification to COSMOS are available from the certification office.

DAWR: (Formerly AQIS) Department of Agriculture and Water Resources – Organic Program. DAWR has an organic program arm that administers the *National Standard for Organic and Bio-Dynamic Produce* and accredits certifiers to this program.

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.

Environmental management system (EMS): A system that aims to manage environmental aspects of the operation.

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 New Zealand): Food authority that lists maximum residue limits (MRLs) for agrichemicals in or on food and fibre and sets food standards. The *Australian Certified Organic Standard* is in addition to these requirements.

Gap audit: An audit that 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 occur either 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, microorganisms, 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 that may compromise an ability to conform to this Standard for organic production, identifying control points, putting in place management practices that 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 overspray 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. 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.

In conversion to organic: Period of time prior to full “organic” status being given to an operator and farm unit.

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

Inputs: Materials that 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 of Agriculture, Fisheries and Food (MAFF) called the Japanese Agriculture System – Organic (JAS). Note that the regulatory requirements for that Standard and certification program are specified in a separate text, which the certified operator must obtain, maintain and ensure compliance with, in order to maintain certification to this regulation.

Korean organic certification: South Korea regulations on organic products are based on two different standards: Environmental-Friendly Promotion Act (EFAPA) for agricultural produce, and the Food Industry Promotion Act (FIPA) for processed products. The Ministry for Food, Agriculture, Forestry and Fisheries (MIFAFF) and the Korean Food and Drug Administration (KFDA) accredit certifiers for the inspection and certification according to both Organic Korean standards. Note that the regulatory requirements for these

standards are specified in a separate text, which the certified operator must obtain, maintain and ensure compliance with, 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.

Licence agreement: Legally binding contract between the certification office and operator pertaining to organic certification.

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

Manufactured inputs (MI): Physically compounded inputs allowed by certification office 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 New Zealand (FSANZ).

Mineral/mined mineral: A naturally occurring substance formed through geological processes that has a characteristic chemical composition.

Nanotechnology: Nanotechnology includes the intentional manufacture of material that has one or more dimensions of the order of 300 nm or less or that is composed of discrete functional parts, either internally or at the surface, many of which have one or more dimensions of the order of 300 nm or less, including structures, agglomerates or aggregates, which may have a size above the order of 300 nm but retain properties that are characteristic of the nanoscale. This does not include the presence in certified organic products of naturally occurring nanoparticles, for example from nanoparticles in volcanic soils, or incidentally produced (non-manufactured) nanoparticles, for example occurring in flour as a by-product of the traditional milling process.

Natural: Any material, not otherwise expressly prohibited in this Standard, which has been harvested, mined, or collected, which may be processed without chemical reaction (allowing washing, distilling, grinding/milling, separation and/or concentration of the material by physical (including steam) or biological means, to yield a material that is identifiable in the original source material.

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 that 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.

Organic management plan (OMP): Management plan that 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 overspray risk or potential contamination from GMO crops. Other identified risks may be brought-in manures or other materials that 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 practised 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.

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

Precautionary principle: Principle that 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.

Precertification: 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 Certified Organic Standard*.

Primary ecosystem: Environments that are pristine and have not been disturbed by human activities.

Processing: Operations that may consist of handling, altering, preserving, packaging and labelling of agricultural products.

Processing aids: Substances intentionally used in the processing of products to fulfil an essential technological purpose, and which do not exist in the final product in their original form.

Production unit: Farm, processing or other commercial entity operated or managed for the purposes of food, fibre or cosmetics 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 that is used for the purposes of quarantine and/or withholding practices.

Reagent: A substance used to start a chemical reaction.

Restricted (R): Input that 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 Certified Organic Standard (ACOS)* 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 that accompanies certified goods outlining type of goods, batch number or identification, certification status, etc. See 3.4.3.

Transport declaration: As for transaction certificate – applicable for bulk commodities (e.g., wheat) and livestock.

USDA NOP: The regulatory system applying in the United States and regulated by the U.S. 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 with, in order to maintain certification to this regulation. Certification to USDA NOP is available via USDA-accredited certifiers.

Verification: System of assessment used by the 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.

CERTIFICATION REQUIREMENTS: GENERAL

3. BASIC CERTIFICATION REQUIREMENTS

Reference to organic or biodynamic certification and use of the Bud logo requires audit, certification and licensing via a recognised and independently accredited certifier, and conformance to this Standard. Legal or other means shall be pursued where incorrect or unauthorised use of the Bud logo 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 sections 4 and 5; Processing to section 6, etc.

Where certification for the EU market is required, operators must also comply with the requirements detailed in Annex VI. The Annex VI requirements override references in the main text or other annexes, on the same topic. For example, if a product is listed as allowed in the main text, but is NOT listed in Annex VI for that specific use, then the additive is NOT allowed for use in EU certified products.

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. An application for certification, including payment, shall be made to the CO, and complete documents submitted for desk review, before an initial site assessment and audit shall be arranged. All documents shall be signed and/or witnessed as required prior to final approval.
- 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 dispatch, 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 audit system, or similar recognised audit system, shall take place – known as precertification. 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 veterinary and agricultural chemicals, heavy metals and/or GMOs, etc., where applicable. Such testing may assess products and processes throughout the production and preparation chain. During the precertification period, labelling of the 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. 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 outcomes 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; Water management; Contamination prevention management; 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; a flow chart of processing or handling activities; 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-GMO 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 OMP. Based upon the decision of the CO, and the signing of the licence agreement, the operator may be given a certification level by the CO, based upon an evaluation of their circumstances.

Conversion Periods and Qualification for Certification

- 3.1.9. 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. Certification of farm units 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.
- 3.1.11. Where GMOs may have been (actively or inadvertently) used in the production system, a period of five years shall elapse prior to certification of the land and/or crops as certified Organic, or longer where there remains unmanageable risk from GMO contamination. Where there remains risk that contamination may occur to the end crop seeking certification as Organic, certification may not be granted by the CO.
- 3.1.12. 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 verified conformance with this Standard for the time periods specified above.
- 3.1.13. 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.
- 3.1.14. 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 that are verified to be in compliance with this Standard for the required time periods as outlined in 3.1.6–3.1.11. Livestock only with a verifiable history of conformance with the Standard throughout their entire lives and which were born on the production unit after it became subject to inspection and certification may be deemed certifiable for meat production. See section 5 for further details of livestock production.

Restrictions to Granting of Certification

- 3.1.15. 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.
- 3.1.16. 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.
- 3.1.17. 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 (e.g., 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 the CO may be required in such events at the expense of the operator.

- 3.1.18. 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 OMP 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 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 (e.g., Bio Suisse, Naturland).

Denial of Certification

- 3.1.19. When the CO has reviewed an application and has found that the applicant is not able to comply with the relevant Standard, written notification of denial / non-compliance of certification must be made, inclusive of the following points:

- Description of each non-compliance;
- Facts upon which the non-compliance is based;
- Date by which the applicant must correct the non-compliances and submit supporting documentation.

Upon receipt of the notification of non-compliance the applicant may:

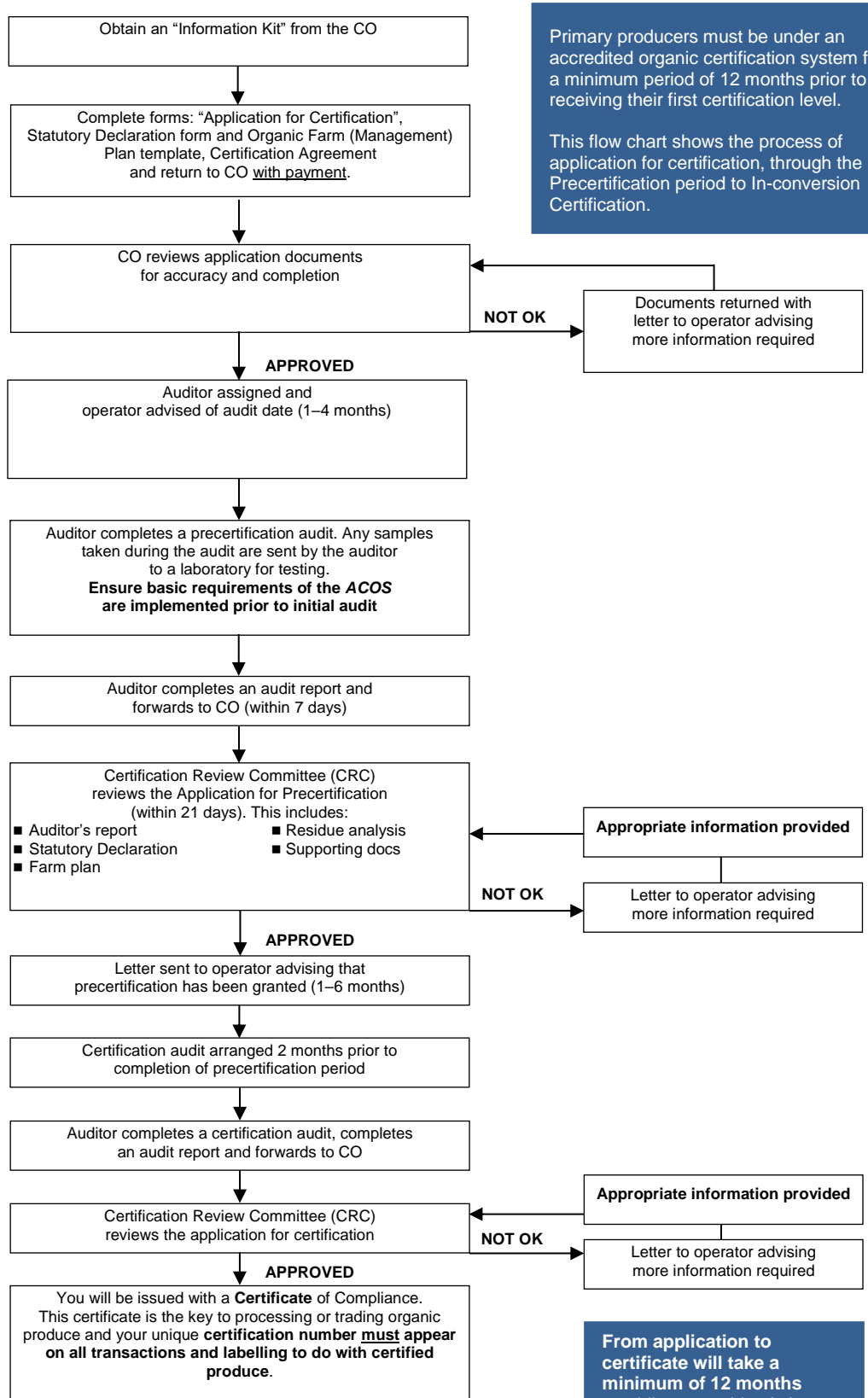
- Correct non-compliances and submit supporting information within the time frame noted;
- Appeal the decision in writing, which will instigate an appeals committee review (see Appeals).

Upon receipt of this information the applicant's details will be resubmitted to the CRC for review and/or to the Appeals Committee as relevant. If upon CRC review the applicant still does not comply with the relevant standards, a denial of certification shall be issued

Transfer between Certification Bodies

- 3.1.20. An operator transferring from (due to decertification or withdrawal) a Certification Body must include in the application to another Certification Body the details of any sanctions imposed by the former certifier.
- 3.1.21. An operator who elects to transfer to another Certification Body will be subject to an initial inspection by the second Certification Body prior to being certified by that organisation.

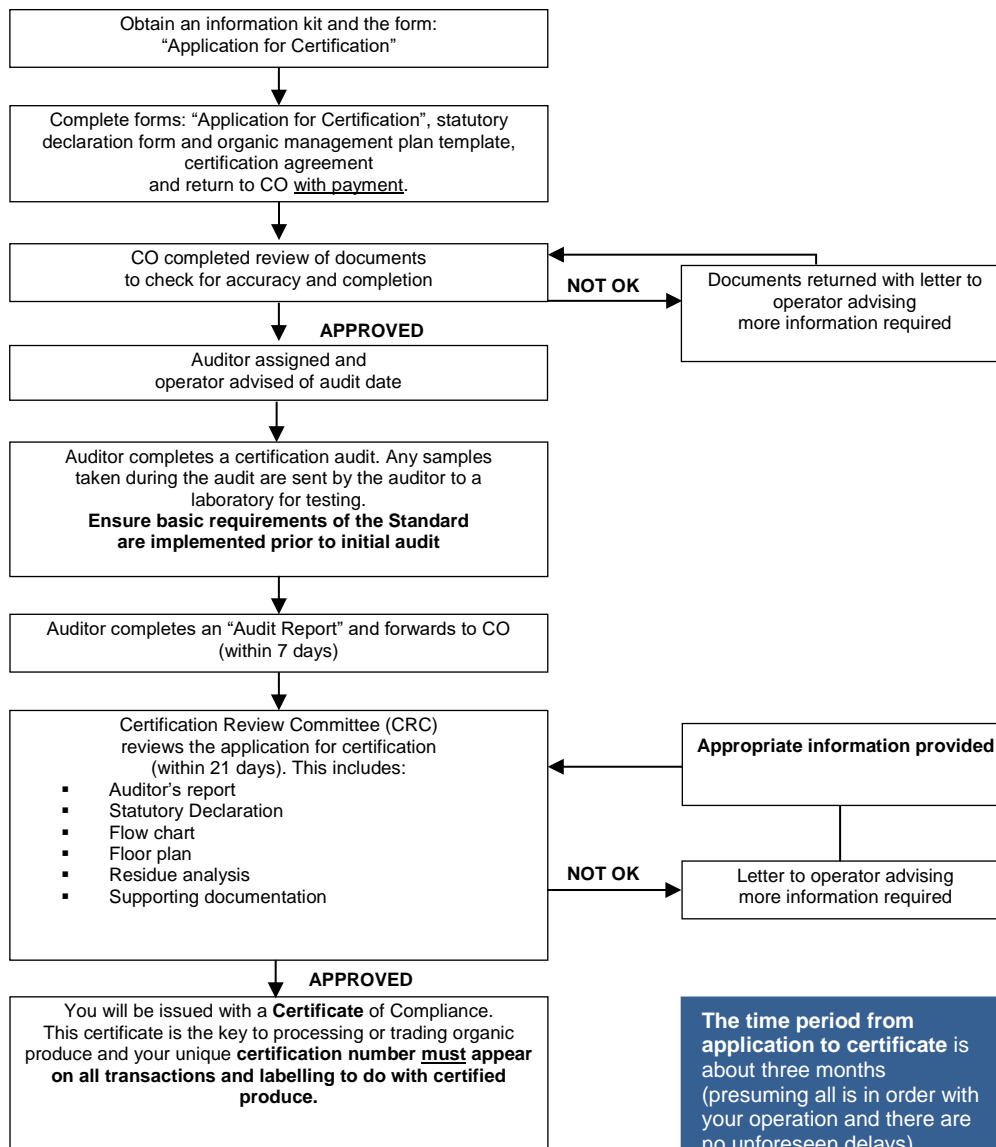
CERTIFICATION FLOWCHART: Primary Producers



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 Precertification period to In-conversion 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 the CO 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. Such issues may include labelling or marketing of products by the operator in question that may potentially mislead the consumer. 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 by the CO upon all land units managed by the certified operator, including non-certified areas;
 - Random or special (unscheduled) audits and tissue tests as required;
 - Audits conducted in concert with auditors from accreditation organisations of the CO (e.g., DOAWR, USDA, IOAS, EU, Japan MAFF, Korea COSMOS etc.);
 - 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 OMP, 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 safety, animal welfare, and APVMA requirements for crops and livestock, export orders, etc.;
 - Effective management commitment and resource availability to ensure that the OMP 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 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 with 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 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 relevant industry sector Standards or Statutory Regulations.

- 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 that 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.

Major Non-conformity

A problem detected that in the opinion of the auditor or the CO is likely to result in, 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 certified product, 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.

DECERTIFICATION

- 3.3.4. Decertification 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, decertification decisions are ultimately decided by the USDA secretariat.
- 3.3.5. Decertification excludes the operator from using the Bud logo and making labelling or marketing reference to certified products or production. This shall also entail removal from the marketplace of all existing certified product that 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 recertification. 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 the CO shall pursue legal means in order to protect the Bud logo and other certified operators from unauthorised use of the Bud logo and AO name by either 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 decertification 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.
- 3.3.10. An appeal of a non-compliance decision must be filed by the operator within 30 days from the receipt of the notification.

Appeals are to be processed based on an application (in writing) from the applicant / Certified Operator concerned OR where the CO deems that an Appeals Committee needs to be enacted on behalf of a client;

The CO's Appeals Committee will consist of a panel of not less than three and not more than five members, selected from experts within the organic certification industry, inspectors and certification staff members. The panel is chosen when it is determined that an Appeals Committee needs to be enacted. An Appeals Committee for a particular client cannot consist of a member of the original Certification Review Committee for that client.

The Appeals Committee is to meet and deliberate on the operator's appeal within 14 days of receipt of the appeal.

All relevant documentation in written form, as well as any submissions made verbally and accurately recorded, relating to the decision made and the appeal are to be considered by the Appeals Committee. The matter will be determined "on the papers" without a hearing, within thirty days of receipt.

In the event that the appeals process sustains the client's appeal, the CO will enter into negotiations with the client to offer reinstatement of certification and endeavour to find agreement with the client on a mutually satisfactory management including communication with industry in relation to the matter.

If the CO denies an appeal, a formal administrative proceeding will be initiated to deny, suspend or revoke the certification in accord with procedures of the CO.

If the appeal is not resolved to the satisfaction of the operator, the operator has recourse through normal legal process.

SANCTIONS

- 3.3.11. In instances where prior transgressions or persistent or significant non-conformances by a client have been sustained, the CO 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.

- 3.3.12. Sanctions shall be assessed 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 (e.g., USDA NOP) in regard to further external assessment of the (de)certification decision (e.g., 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 CO and auditors for the CO, 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 potentials.
 2. An organic management plan (OMP) (see Definitions and 3.1.7, and refer to the template from the CO or website) outlining and projecting future production activities that 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.
 - a. Aspects of this OMP shall be based upon HACCP principles (see Definitions) where relevant, which identify all significant hazards associated with maintaining certification, and which outline procedures for reducing or eliminating such hazards, and monitoring procedures that ensure ongoing effective management and progressive management of the farming or organic handling management system. This shall include procedures for handling CARs, complaints and potential product recalls. Such recall procedures will include reference to notifying the CO of the circumstances and actions taken.
 - 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, animal identification, 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 unit 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 that 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 identification and verification of the nature and quantity of all products arriving on, stored at, and leaving the operation and all significant processes of modification to products or stock. Records should be kept in a manner that allows tracing of all finished products back to inputs or ingredients, and also a reconciliation of output of organic products against inputs or ingredients used. Records of sales shall include details of the buyer or consignee (other than for final retail sales).
 4. Records shall be maintained to enable prior season audit of the operation's sales and certified operators are required to retain all records relating to certification for five years after their creation. For some market requirements (e.g., US) records must be maintained for longer periods. Such records shall form the basis for verification of compliance with this Standard.
- 3.4.2. The operator shall put in place procedures and operations that shall establish full control of certified products and stock on farm, in storage and during transport, and that 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 marketplace at any time for a specified group of products or stock produced or sold on any day or production run. Prior to resale or dispatch of certified products, an operator shall ensure that the

packaging integrity has been maintained, with no seals broken or other tampering evident. The operator shall also crosscheck and confirm that the labelling referring to organic status properly correlates with the transaction documents (invoice) relating to that product. Where an operator considers or suspects that a product that they have produced, prepared, imported or been delivered of from another operator is not in compliance with this Standard, they shall initiate procedures either to remove from this product any reference to the organic production method or to separate and identify the product. Operators may only process, pack or market such product after elimination of that doubt, unless it is placed on the market without reference to organic status. In case of such doubt, the operator shall immediately inform the CO. The CO may require that the product cannot be placed on the market with indications referring to the organic production method until it is satisfied, by the information received from the operator or from other sources, that the doubt has been eliminated.

- 3.4.3. For imported organic products, a Transaction Certificate (a document for the sale and movement of certified products), issued or endorsed by a competent authority or government approved certification organisation, shall be available. 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. This shall also include the date of transaction and buyer and seller details. For export of organic products from Australia, an Organic Export Certificate must be completed. This is available from the CO and is a legal requirement for export of organic products. For domestic wholesale transactions of certified organic produce, where the purchasing party requires certified product (for resale or processing), a comprehensive invoice shall be supplied by the certified operator.
- 3.4.4. Traceability procedures shall include consideration of aspects such as packaging, labelling and transport as well as all relevant documentation that 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 to clearly differentiate and identify stock which do not conform with this Standard. Identification methods may include boluses, and tail or other tags. Records shall entail at a minimum full documentation for each movement of stock on and off the property.
- 3.4.6. Certified operators are required to take appropriate action on complaints related to their products' compliance with this Standard and to keep a record of corrective actions taken.

3.5. Labelling, Packaging, Marketing Material and Ingredient Specifications

- 3.5.1. All products, raw or processed, marketed as certified organic shall include the following details on all packaging bound for retail sale (unless otherwise overridden by other market requirements, e.g., USDA NOP, Japan JAS.):
- The name of the product or a description of the compound feeding stuff (ingredients list);
 - Appropriate reference to certification (e.g., Organic, Organic in conversion, etc.);
 - Certification number of operator;
 - Certifier name and relevant Bud logo;
 - Name and address and/or registered mark of the certified operator or owner of the product and/or label as required by law.

Exceptions to labelling requirements (e.g., domestic private label within Australia) shall require confirmation in writing by the CO as acceptable prior to market release. The CO maintains a file of existing formats for logo and name use. Variations beyond these formats shall require specific approval prior to use.

***NB: Onus is on the operator to ensure compliance to importing country market requirements.**

- 3.5.2. Failure to maintain compliant labelling and receive written confirmation from the CO as to the acceptability of such labels may result in mandatory removal from the marketplace of all product that is deemed to not comply with this Standard or that fails to achieve approval of the CO. A copy of all labels bearing market reference to organic products shall be kept on file by the CO and it is the responsibility of the operator to ensure that all current labels are sent to the CO.
- 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 Bud logo for in conversion products is clearly distinguishable from the Bud logo for certified organic products. Labelling reference to In Conversion status of the product must

be the same size, font and colour as the words “Organic” or “Biodynamic” on the packaging. Single agricultural ingredient items may be sold as “In Conversion to Organic”.

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 rendered as new through allowable sanitation and sterilisation processes. Packaging shall be selected by the operator with regard to the environmental impacts of the production, consumption, use and disposal 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 that 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 food packaging when in contact with certified materials. Vacuum packing is permitted, along with the use of food grade nitrogen or carbon dioxide 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. Certified Operators must not display any marketing, advertising material, or products in a manner that is likely to be misleading or confusing to consumers.
- 3.5.9. 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 verified by the operator.
- 3.5.10. No claims may be made as to the chemical-residue-free status of organic products for sale, except where this can be verified by the operator. No claim shall be made on the label or advertising material that suggests to the purchaser that the certified organic status of the product constitutes a guarantee of superior organoleptic, nutritional or salubrious quality.

Percentage Calculations and Category Rules

Guidance note: The below labelling category rules are overridden by requirements detailed in relevant Annexes to this standard, where specific market access is required, such as EU.

- 3.5.11. For processed food products, where a minimum of 100% of all ingredients (excluding water and salt) come from certified organic sources, reference may be made to “100% organic” on the label.
- 3.5.12. For processed food products, where a minimum of 95% weight/weight 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. In the instance of the product and all ingredients being liquid, the calculation of percentages above shall be done by fluid volume.
- 3.5.13. 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. Ranking in order of concentration is required for all ingredients.
- 3.5.14. Where less than 95% but not less than 70% weight/weight 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, the statement “Made with organic ingredients” may be made on the label. The Bud logo cannot be used on products in this category.
- 3.5.15. Where less than 70% of ingredients are from certified organic origin, the ingredients that comply with this Standard shall appear in the same colour and with an identical style and size of lettering as the other ingredients listed in the ingredients list. The Bud logo cannot be used on products in this category.
- 3.5.16. The requirements listed above (3.5.10 – 3.5.14) also apply to any products to be sold, labelled or marketed as In Conversion to Organic, with the exception that in conversion ingredients are used in place of organic or biodynamic.
- 3.5.17. For products in which water constitutes greater than 70% of the product volume the organic ingredient percentage shall be listed per total product volume. This does not apply for reconstituted products.
- 3.5.18. For livestock products, only the same in In Conversion, Organic, or Biodynamic status as is currently held by the production unit is allowed to be displayed on labels and marketing material.
- 3.5.19. Onus is on the operator to ensure that all legal and other label requirements are met in regard to labelling and packaging.

- 3.5.20. Ingredients shall be listed in the order of concentration in the end product, clearly noting and differentiating certified ingredients from non-certified ingredients.

Ingredients and Source of Ingredients

- 3.5.21. 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) review the availability of supply of certified organic ingredients and inputs.
- 3.5.22. 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/fumigated status, no animal testing, 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 or other prohibited products or processes.
- 3.5.23. 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).
- 3.5.24. Ingredients shall not be mixed in parallel. This is defined as ingredients of the same material of both certified and uncertified origin.
- 3.5.25. 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 (e.g., Australian, US, Japanese, etc.) and in some instances for the operator supplying ingredients to an end product to specifically be certified for that market (e.g., USDA NOP, Japan).
- 3.5.26. 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 (e.g., fumigants) have been used in the export/import process. 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 with Australian requirements and non-presence of 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, this shall not be allowed, except as outlined below.
- 3.6.2. In exceptional circumstances, such as buffer zone requirements, initial and partial certification or other circumstances allowed by the 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 OMP shall outline a plan of progression towards full certification of the operation over a five-year period.
- 3.6.3. In such circumstances as 3.6.2, operators must inform the CO, and will in most instances require additional monitoring and auditing by the CO at the certified operator's expense, including CO 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, and an updated register of all operations and quantities processed must be kept.
- 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 and suitable cleaning of equipment, the effectiveness of which has been checked, between certified and non-certified products – also see sections 6 and 8.
- 3.6.7. Prohibited materials shall be stored in separate locations from those where organic products are handled.

3.7. Certification Transference/Recognition Arrangements

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

- 3.7.1. Certified organic produce certified by a certification program and standard other than the ACOS shall be allowed for use within certified end product where such certified produce is certified by a certifier accredited to an equivalent system and standard (e.g., IFOAM family of standards) as outlined below.
- 3.7.2. Such recognised certifiers shall only be utilised following application to the CO for confirmation of equivalence. Such an equivalence list is maintained by the CO and on the AO website. The equivalence list shall also be maintained or the current list referenced by the certified operator and documented in the OMP.
- 3.7.3. IFOAM is recognised 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 the CO, are recognised as equivalent for transference. Please note that additional importing country criteria or other regulatory criteria may override this recognition for given products or situations (e.g., USDA NOP, JAS,.). Certified products not certified with recognised certifiers (IFOAM-accredited certifiers or ISO 17065 certifiers) shall not be used in certified products under the IFOAM stream/program. In limited instances the CO 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. product acceptance will only be valid for the period of validity of the organic certificate being recognised;
 - c. potential for dual certification of operators or products as required. Such outcomes require formal application to the CO office, and payment of the relevant processing fees prior to acceptance. This bestows certification on products and operations where prior reports and documents from another accredited certifier are deemed acceptable and equivalent to the CO and verify conformance to the Standard. The CO 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 eight months.
- 3.7.4. 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.
- 3.7.5. In regard to operators certified by other certification bodies, prior certification shall be taken into consideration where such certification is deemed equivalent and/or where the audit and certification system is deemed equivalent.
- 3.7.6. In regard to **other international regulations** – such as the USDA NOP, the Japanese Agricultural Standard (JAS) Organic, or the EU Council Regulation 834/2007, such regulations must be followed where access of products to those markets is required.

3.8. Deferral of Certification

- 3.8.1. 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.
- 3.8.2. The option for deferral of certification is only available to operators with primary production systems (cropping, horticulture, livestock) and/or those operators with integrated on-farm or farm-specific processing units.
- 3.8.3. Deferral shall only be granted following written application by the operator to the CO and written acceptance by the CO.
- 3.8.4. The minimum time period for Voluntary Deferral is 12 months. The maximum time period for Voluntary Deferral is 24 months (2 years).
- 3.8.5. Through the period of deferral, verifiable conformance to the Standard is required, with no sales of certified product permitted.
- 3.8.6. Auditing and review by the CO shall be required prior to reactivating certification.

STANDARDS REQUIREMENTS: GENERAL – PRIMARY PRODUCTION

4. GENERAL PRODUCTION STANDARD – PRIMARY PRODUCTION

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 that 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 before the area is used for certified crops intended for human consumption (note additional USDA NOP criteria);
 - c. The application of 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 micronutrients and encouragement of microbial life for production of humus.
- 4.1.4. For perennial crops where a rotation is not possible, a diverse ecosystem should be created and maintained by such means as companion planting, undersowing 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 is 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. Onus is on the operator to ensure compliance to other market requirements.
- 4.1.6. Naturally occurring mineral nitrogen fertiliser products are prohibited.

- 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 organic matter (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 (e.g., 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 AO 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.
- 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 20 t/ha per year 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. 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 multisource urban areas are prohibited from use on certified organic land. Exceptions to this rule may be in 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 production, nor shall there be potential for leaching of contaminating agents onto such food 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 certified operations.

- 4.2.11. **Seeds and propagative material** used on certified land shall be certified organic. Where such material is not commercially available, and this can be demonstrated by records of correspondence with at least three seed suppliers, the certifying organisation may allow:
- in the first instance the use of non-GMO and non-treated seeds or propagative material (verified by supplier declaration);
 - 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 the operator to ensure compliance to additional market requirements.

- 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 section 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 10 cm under an anaerobic system.
- 4.3.4. Heaps should reach a minimum of 55 degrees Celsius for a minimum of three 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 five 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 three weeks and 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 4454-2012) is six weeks.
- 4.3.5. As a guide, the temperature should remain between 50 and 55 degrees Celsius for as long as the process requires. Ideally, heaps should be a minimum of 1 m³ 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.
- 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 that may pose environmental impacts to other areas on or off the farm unit shall be allowed to occur.
- 4.3.9. Feedstock shall be selected so as not to pose contamination risk. This includes prevention of GMO feedstock into compost heaps on farm. Note also that at all times, food safety of end food products shall be a core consideration for all compost use.
- 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 set out in AS 4454-2012.
- 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 – e.g., 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.
- 4.3.11.2. For lands where ruminants are managed, restriction on feedstock for composts includes prohibition of byproducts 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 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 – e.g., 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. 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 efficiency;
 - 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 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 that 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 sections 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 that may affect the organic integrity of products or land.

Recycling and Reclaiming of Waters

- 4.4.8. Untreated greywater 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 biosolids 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, where deemed suitable for unrestricted agricultural uses by relevant state/territory authorities. Such water shall not be in contact with edible portions of plants bound for human consumption during growth and harvest. Such water may be applied to green manure crops, seedlings prior to transplant and production systems not designated for human or animal consumption. Such water may be used on grazing areas no less than eight days prior to grazing. Other market restrictions or regulations may prevent these allowances.
- 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 reintegrate 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 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 an 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 section 4.1.3a–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 4.5.3a–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 that 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. Note that additional (international) market requirements may override allowance for otherwise permitted products or non-active additives to those products.
- 4.5.3. Pests, diseases 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, trap cropping;
 - d. Biodynamic measures;
 - e. Soil solarisation – where a proper rotation cannot take place;
 - 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 other import markets that may not permit some of these inputs).
- 4.5.4. Naturally occurring products prohibited in organic systems include nicotine, and rotenone for cropping.
- 4.5.5. 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. Refer to section 4.7.
- 4.5.6. Ionising radiation as a post-harvest practice is prohibited.

4.6. Environmental Management and Social Policy

ENVIRONMENTAL AND BIODIVERSITY MANAGEMENT

- 4.6.1. 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 shelterbelts, corridors, wetlands and remnant vegetation protection are considered aspects of biodiversity management.
- 4.6.2. 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 OMP. 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 as non-intensive grazing systems. 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 that are not cultivated or intensively stocked. The aim is to enhance biodiversity on farm, enabling “ecosystem services” to enhance the productivity and sustainability of the organic farming operation and the surrounding environment.
- 4.6.3. 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 photopoint monitoring of pasture and floral species in rangeland management operations.
- 4.6.4. 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.
- 4.6.5. 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.
- 4.6.6. 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.
- 4.6.7. All certified operations shall ensure identification of critical environmental aspects that are relevant to their production system and outline management plans in the OMP 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 that 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.
- 4.6.8. **Burning of stubble** and residues is a restricted practice due to destruction of nutrients and organic matter. Stubble burning shall not be practised on a regular basis and shall only occur after written permission from the 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.

- 4.6.9. 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.

SOCIAL POLICY

- 4.6.10. Operations that are deemed to contravene basic human rights or be involved in clear instances of social injustice shall not be certified.
- 4.6.11. Operators shall not use forced or involuntary labour.
- 4.6.12. Employees and contractors of organic operations have the freedom to associate, the right to organise, and the right to bargain collectively.
- 4.6.13. Operators shall provide their employees and contractors equal opportunity and treatment and shall not act in a discriminatory way.
- 4.6.14. Children employed by organic operators shall be provided with educational opportunities.

4.7. Contamination: Soils; Produce; and Buffer Zones

- 4.7.1. Residues of synthetic chemicals 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 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 that are suspected to be used in the production and preparation chain. Decertification of products may occur where such residues have not otherwise arisen from historic, ambient or unintentional post-farm-gate practices.

In case of reasonable suspicion of land and / or product contamination, the certified operator shall advise the CO and provide factual evidence on the matter, and a proposed plan for management and monitoring of the potential contamination

- 4.7.2. 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 (i.e., 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 advertent contamination throughout the certified production process.
- 4.7.3. 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.
- 4.7.4. 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 shall be maintained by the operator that 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.
- 4.7.5. 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.
- 4.7.6. 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.
- 4.7.7. 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.
- 4.7.8. 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.
- 4.7.9. Exceptions to amendments and fertiliser heavy metal levels may be granted in instances where consideration of application rates is made, 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

- 4.7.10. 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 its auditors at any time. Prohibited materials shall be stored in separate locations from those where organic products are handled.
- 4.7.11. Certified operations shall not employ equipment such as boom sprays that 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.
- 4.7.12. 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.
- 4.7.13. Dip sites, old shed areas and other potentially contaminated areas that may pose risk to certified stock or product shall be excluded from certified areas.

GMO GUIDELINES

- 4.7.14. Residues or cross-contamination of GMOs into certified crops or produce is prohibited. Such residues shall deem crops or produce un-certifiable. 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.
- 4.7.15. The time period following the production of any GMO crops on conventionally managed operations shall be five years prior to achieving organic certification for crops that 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.
- 4.7.16. Where cropping open-pollinated or pollination-contamination-prone crops, identification of all GMO crops that may pose a risk – within a minimum 10 km radius from the certified operation – is required in the OMP. This may require non-production of certain crops or similar risk management measures to ensure no GMO contamination.
- 4.7.17. 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.
- 4.7.18. 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 that are noted as potential GMO sources, and other suppliers that may have GMO risks associated with their industry sector.

BUFFER ZONES

- 4.7.19. 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 that 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.
- 4.7.20. 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.
- 4.7.21. Where water contamination, or waterborne agents, pose risks to certified farm units, appropriate management practices and technical means such as spillways, trenches, run-offs and/or wetland areas may be required to ensure no contamination may occur.
- 4.7.22. 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

- 4.7.23. 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 OMP shall outline plans for recertification and management strategies to ensure no contamination occurs to certified areas.
- 4.7.24. 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 that assures 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 3.1.17, except in cases of state or government mandated requirements.

WATER

- 4.7.25. 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.

SAMPLING & TESTING

- 4.7.26. Testing and test results are recognised as a limited means of verification and are not recognised as the basis for organic status of products.
- 4.7.27. The CO conducts random and targeted tests of products in the marketplace or directly from production units. Operators are required to assist the CO and enable resources to ensure such sampling may be taken.
- 4.7.28. 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.
- 4.7.29. Sampling may include, but is not limited to, OCs, OPs, pyrethroids, other modern agrichemicals, heavy metals, GMO genetic material, herbicides and microbiologicals.
- 4.7.30. 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.
- 4.7.31. Where reasonable suspicion of contamination of land or organic products exists, the certified operator should respond appropriately. This may include alerting the CO, conducting testing and implementing practices to effectively manage the contamination potential.

SECTOR SPECIFIC REQUIREMENTS

5. LIVESTOCK PRODUCTION

PRINCIPLES AND AIMS

Where appropriate, livestock are encouraged for use as part of a dynamic organic production system. 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 byproducts produced, in a way that conforms with natural processes of growth and development, rather than being force fed or growth induced by unnatural methods;
- Breed types are selected that 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 decertified 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 (e.g., chickens) shall be identifiable and traceable to sheds (including numbers) and consignments.

Livestock and land areas that 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 (OMP) 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 that is/are known to exist in the region or on the organic farm, and that threaten livestock health, where they are required by law or in proven cases where such a disease cannot be effectively controlled by other management practices.
- 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 **decertification 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 three weeks, 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. With the exceptions of vaccines and compulsory state eradication schemes, and notwithstanding Table 5a, certified livestock may not be treated with treatments that are prohibited for certified livestock including chemically synthesised allopathic veterinary medicinal products or antibiotics, with more than two (or in the case of livestock with production cycles less than one year no more than one) treatments within any given year to regain certification. The storage of allopathic veterinary medicinal products and antibiotics is permitted on certified farm units provided that they have been prescribed by a veterinarian in connection with mandated or welfare-oriented treatment, that they are stored in a supervised location and that they are entered in the farm records/register.
- 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 reattained effective organic management control of pest or disease problems.

Table 5a: 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 monogastric (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.

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 growth hormone treatments, or that 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 only may be introduced to certified farm units to a maximum of 10% per annum.
- 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. 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.

Table 5b: 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 monogastrics (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 may be shifted to other areas of the property through time, but must only be used for livestock production for a minimum period of 12 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 three 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 (i.e., set on land otherwise managed in accordance with this Standard).
- 5.1.13. 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.
- 5.1.14. **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

- 5.1.15. 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.
- 5.1.16. With the exception of dairy stock, or where there are animal welfare concerns for the parent 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 should conform to the following minimum time frames:
- Beef cattle calves 3 months
 - Lambs and kids 9 weeks
 - Piglets 6 weeks

ANIMAL MODIFICATION

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

Castration:

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

Dehorning:

Prior to six months or under anaesthetic. Ideally practised as close to birth as feasible.

Mulesing:

Restricted, with pain relief, to cases where verifiable animal welfare concerns exist and shall

not occur in the absence of preventative management, including permitted substance use and strategic crutching. Note some market prohibitions apply (e.g., EU) and this practice is prohibited for IFOAM certification.

Tail removal:

Allowed in lambs up to 10 weeks old.

Teeth:

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

AGISTMENT AND FINISHING

- 5.1.19. 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.
- 5.1.20. In certain cases, specifically approved by the CO, livestock may be moved to certified farming systems that are naturally ideal for finishing livestock. Such instances for approval would include livestock being sourced from native pastures that 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 Living Conditions and Stocking Rates section below.
- 5.1.21. Operations agisting or finishing stock shall conform to all requirements as outlined in this section, with the exception of restocking rates for stock.
- 5.1.22. 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 5.1.25 to 5.1.36.
- 5.1.23. 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.
- 5.1.24. In the case of commons lands and/or stock routes that are required under law to allow passage of regional stock that 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

- 5.1.25. 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 section 5.1.28 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.
- 5.1.26. 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.
- 5.1.27. Livestock operations should aim for feed self-sufficiency within the region and the farming unit. At least 50% of feeds should be sourced from organic farming systems in the region of the certified farming unit. All production units should orient their management systems towards greater than 50% self-sufficiency in feeds and document this in their OMP. Note some market restrictions and specifications in relation to this rule.
- 5.1.28. For certified stock, up to 5% of the annual agricultural origin dry matter feed intake may be brought in as additional non-organic feed where unavailable in certified organic form and where products comply with other stipulations in the Standard (non-GM, non-contaminated, etc.).
- 5.1.29. The following may be included to supplement the diet:
 - a. Minerals and natural vitamins;
 - b. Kelp and plant-based marine products;
 - c. Stonemeal, lime, zeolite;
 - d. Other products listed in Annex II as allowed for livestock feed use such as yeasts and yeast byproducts (non-GM), natural herbs, homeopathic remedies.
- 5.1.30. 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.
- 5.1.31. All types of excrement including droppings, dung or other manures are prohibited in the diet for all species. The keeping of livestock in conditions, or on diets, that may encourage anaemia is prohibited.

- 5.1.32. For ruminants, animal byproducts, including meat, offal, manures and feathermeal are prohibited as feedstuffs. Note also that the use of fertilisers that contain animal byproducts 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 byproducts is allowed as fertiliser where ruminants that are destined for certified organic markets may graze.
- 5.1.33. Animals must have free daily access to pasture and roughage while at the same time being protected from predation by wild and feral animals. 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.
- 5.1.34. In exceptional circumstances (EC), particularly where animal welfare issues may be at stake, the CO may allow specific derogations to the above. Such derogations shall follow formal application to the CO and will be reviewed prior to possible acceptance. Such derogations may impact on the operator's ability to sell certified product to particular markets with the onus on the certified operator to ensure compliance with specific country standards.
- 5.1.35. 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 5.1.25. Such feed shall be sourced in the first instance from (a) certified in conversion to organic 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 require prior approval from the CO and may relate to instances of unforeseen severe natural or man-made events or extreme climatic or weather conditions. Certification status of stock shall be impacted on as noted below in the instance of feeding more than 5% feeds from non-organic sources. Operators may feed a limited percentage of non-organic feed under specific conditions for a limited time in the following cases: unforeseen severe natural or man-made events; extreme climatic or weather conditions.
- 5.1.36. 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 six-month period before regaining organic status. Additional livestock residue testing may be required, under the direction of the CO, prior to reattainment of certification.

LIVING CONDITIONS AND STOCKING RATES

- 5.1.37. Livestock management, including transport, shall be guided by an attitude of responsibility and care for living creatures. 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. Dams and/or watering points shall be established to allow rotational grazing. 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. Equipment must be cleaned and disinfected to minimise the spread of infection.
- 5.1.38. 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 from non-contaminated sources, and where such materials may be consumed by livestock shall be produced in compliance with this Standard. Livestock housing must have smooth but not slippery floors. For mammalian species, at least half of the total floor area must be solid, that is, not of slatted or of grid construction. Social structures shall be maintained by ensuring that herd animals are not kept in isolation from other animals of the same species.
- 5.1.39. Stocking rates and rotational grazing management shall take into consideration preventative disease management, good pasture and ecological management, welfare of stock, while minimising potential for nutrient leaching, erosion, or overgrazing of watering points or other high traffic areas. Stocking rates and associated 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.
- 5.1.40. For livestock housing areas, as a guide, large ruminants and monogastrics should have access on ground to not less than 3 m² for each animal and 1.5 m² for small to medium ruminants and monogastrics. Variations to these guides shall require validation that principles of animal welfare and behavioural freedom are being achieved.
- 5.1.41. The construction of livestock housing areas must provide for insulation, heating, cooling and ventilation of the building, allowing air circulation, and keeping dust levels, temperature, humidity and gas concentrations within levels that are not harmful to the livestock. Waste must be removed as needed to minimise odours and prevent pest infestation.
- 5.1.42. Where manure is stored, capacity must be sufficient for immediate needs, as well as additional storage to allow for instances where regular removal may not be possible.

COMMONS AND STOCK ROUTES

- 5.1.43. When certified operators have stock routes though their property (e.g., rangeland regions) or where common areas are required to be used on an emergency basis, the following applies:
- 5.1.44. As a guide, the following movement restrictions apply:
- Cattle 16 km/day
 - Sheep 10 km/day
- 5.1.45. 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.
- 5.1.46. 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 three weeks prior to stock route or commons access.
- 5.1.47. 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.
- 5.1.48. Identification of potential contamination sources 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

- 5.1.49. 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.
- 5.1.50. As a guide, transport times should not exceed eight 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 eight hours where animal welfare considerations are best served. A responsible person or persons shall be allocated by the certified operator to ensure the wellbeing of the animals throughout this process.
- 5.1.51. Certified organic feeds and quality potable water shall be made available between transport legs if spelling and feeding is required.
- 5.1.52. 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.
- 5.1.53. 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.
- 5.1.54. 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 that minimise stress to livestock.
- 5.1.55. The use of electric prods is prohibited for on certified animals.

5.2. Poultry – Meat and Egg Production

GENERAL

The following requirements are in addition to other livestock and land management certification requirements in this Standard that shall require detailing in the OMP.

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.

HOUSING AND RANGE MANAGEMENT

- 5.2.1. Chickens, pullets and laying hens shall have permanent access to weatherproof housing, with sufficient perches to enable normal roosting for roosting birds.
- 5.2.2. Housing units shall have sufficient distribution of feeders, drinkers and other facilities to allow for the development of natural social groups within the housing unit. Shed stocking density,

including roosting areas, for laying chickens shall not exceed 16 kg/m² and for all other birds shall not exceed 25 kg/m² over the usable area of the shed. The useable area of the shed may include all flooring and other resting areas, including nest boxes. At least one-third of the useable area of the shed shall be covered by solid flooring materials that must include some bedding and litter materials.

- 5.2.3. Range area total stocking density at any given time for layers shall not exceed 2500 birds per ha where stock or forage rotations are practised and shall not exceed 1500 birds per ha for set stocking systems. Meat chickens shall have access to areas not exceeding 2500 birds per ha for set stocking systems, or 4800 for rotational systems. Rotations are defined whereby shedding systems are either moveable or whereby rotations and resting of range areas ensures recovery of forage areas between production cycles.
- 5.2.4. Range areas shall include provision of edible forage at all times, except in extreme circumstances of natural disasters or extended dry periods beyond the control of the operator. Vegetative cover or other means of shading shall be designed and positioned to ensure that birds have ease of access to harbour to avoid aerial predators as well as protection from extreme weather events.
- 5.2.5. Pop holes or similar types of exit areas shall enable ease of access for birds at ranging times and at a minimum openings shall be 35 cm high and 40 cm wide and provide a minimum of 2 m width per 1000 birds in any given shed. Construction of these areas shall ensure ease of exiting by birds and not contain obstacles or other barriers to exit. The number of birds per shed, and the location of sheds should be such as to enable balanced bird utilisation of acreage around sheds. Birds should be encouraged to spend time outdoors; this may be achieved by ensuring appropriate shade, water, feed, and habitat structures are available in the outdoor ranging areas.
- 5.2.6. Clean, dry nesting boxes or nesting colonies shall be provided that allow no less than 20% of laying hens nesting space at any one time.
- 5.2.7. Artificial lighting to supplement natural daylight shall not exceed 16 hours in any given day, and allow at least eight hours of continuous dark per night.

FEEDS, SUPPLEMENTS AND TREATMENTS

- 5.2.8. 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.
- 5.2.9. Note sections 5.1.25 and 5.1.28 for specific and exclusive exceptions to feed allowances.
- 5.2.10. There shall be provision of insoluble grit where required in the diet of the species in question.
- 5.2.11. The feeding of animal manures is prohibited.
- 5.2.12. The use of synthetic nitrogen supplements, growth promotants and hormones is prohibited.
- 5.2.13. The use of synthetic yolk colourant is prohibited.
- 5.2.14. 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 occur and may lead to loss of certification for the entire production unit.
- 5.2.15. 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

- 5.2.16. Laying hens shall only be replaced with stock that have been housed and reared in compliance with this Standard.
- 5.2.17. Battery brooding is prohibited.
- 5.2.18. Replacement birds older than two days old shall not be introduced unless being sourced from poultry systems in full compliance with this Standard.
- 5.2.19. 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 two days old. Conversion of such stock shall take a minimum of two months of full compliance to this Standard (including certified feed).
- 5.2.20. 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 that 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.

ADDITIONAL HUSBANDRY PRACTICES

- 5.2.21. Artificial lighting for the purposes of supplying warmth for chick rearing is allowed.
- 5.2.22. Fully feathered birds shall have access to pastured areas during the majority of 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.

- 5.2.23. Withholding feed and water to induce moulting is prohibited.
- 5.2.24. Practices such as systematic debeaking as well as the use of poly peeper are prohibited. Such practice will only be permitted where the following has been reviewed for appropriateness for each operation. The operator must ensure that there is:
- Provision of adequate stocking densities including around feeding areas;
 - Management of lighting, shed design and other environmental aspects to ensure optimal social and physical stimulation;
 - Provision of a diet that ensures an adequate and balanced nutrient intake.
- 5.2.25. 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.
- 5.2.26. Water fowl must have access to a stream, pond or lake whenever the weather conditions permit in order to respect animal welfare requirements and hygienic conditions.

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 pasture, 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 excess nutrient leaching does not occur.
- 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 1 m²/100 kg 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 eight 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. Sows must be kept in groups, except in the last stages of pregnancy and during the suckling period.
- 5.3.10. Tail docking, routine teeth clipping and grinding and permanent 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, protect 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.

5.4. Dairy Production

The farming of dairy cows, goats, sheep or other dairy livestock shall comply with all other relevant sections of this Standard, 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 actively managed utilising 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. Use of such treatments shall comply with requirements

- laid out in regard to segregation and identification of treated stock and non-use of milk from such stock as organic for the specified periods (Table 5a).
- 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 four 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. Ultra heat treatment (UHT) and other related heat or physical preservation treatments are allowed.

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 that naturally require access to pasture, allowing for quality feed and optimal living conditions.
- 5.6.4. Sheds or shelters shall be such as to protect against the elements of heat, cold and rain as well as against predators.
- 5.6.5. Quality water and feed in compliance with this Standard shall be made available at all times.
- 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 maintained through the use of rotational grazing or other techniques that allow maintenance of groundcover and related feed for penned animals.

5.7. Extensive Rangeland Production

In addition to all relevant requirements of this Standard, 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 rotational 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. Native flora and fauna 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.
- 5.7.3. 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.
- 5.7.4. Traditional landowner rights on pastoral leases shall be respected.
- 5.7.5. Prohibited products under this Standard must not be stored on certified areas of the farm unit.
- 5.7.6. Mandatory spraying by weed control or pest control authorities shall lead to decertification of affected areas. See section 4.7. 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

- 5.7.7. Feral animals shall be actively contained and destroyed where declared a "pest animal" in a given state, in accord with state-mandated requirements.
- 5.7.8. 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

- 5.7.9. The running of uncertified stock on certified land is allowed on strict condition that such stock have been quarantined after treatment with 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.
- 5.7.10. Easily identifiable and resilient tags or other markings shall be used to distinguish certified stock, as well as to distinguish decertified stock (requiring prohibited treatments, etc.), quarantining stock and uncertified stock.
- 5.7.11. 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.
- 5.7.12. 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 contaminants pose risk of chemical or heavy metal residues in certified end products for sale.
- 5.7.13. Urea, uncertified cotton seed meal, blood and bone, meat meal and related products are prohibited as feed enhancers.
- 5.7.14. Mustering shall not include the use of lead shot.
- 5.7.15. 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.
- 5.7.16. Transport times from remote locations shall comply with the Standard, with exceptions being granted by the CO upon application, taking into consideration animal welfare issues, segregation and related logistics.

6. PROCESSING/PREPARATION

6.1. Production Facilities, Processes & 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 (CPs) whereby processing is conducted by a contracted party for a certified operator. Processors may also include packhouses 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 dispatch the authenticity of the certified product is maintained – ensuring maintenance of nutritional and quality aspects of food products and non-contaminated fibres and cosmetics.
 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 verifying that all ingredients claimed as organic bear, or relate to, appropriate labelling, documentation and current 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 the CO prior to allowance for use of such formulations. See ingredients and labelling requirements in section 3.5. Also see section 3.7 for certification recognition arrangements. Ingredients, including substrates and cultures of microorganisms, 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. 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 that 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 dispatch of products – constituting aspects of the OMP 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 that enables recognition of certified materials during preparation and storage processes shall be established.
- 6.1.7. Product leaving the certified preparation facility shall bear identification of the certification status, certification number of the operator and name and/or relevant logo of the certifier, along with clear reference to such products being organic.
- 6.1.8. Products leaving the certified preparation facility shall be linked to appropriate documentation that pertains to the naming of the products, the volume or number of products, certification

status and name of certifier. 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 from currently certified suppliers. 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 that detail 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 that 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.

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. The effectiveness of cleaning procedures shall be monitored, and cleaning activities recorded. Except in circumstances allowed by the CO, compliance with Codex HACCP requirements shall be required. Refer to FSANZ Food Code.
- 6.1.11. Cleaning practices and cleanliness management shall prevent contamination of organic products from residues of previously handled non organic products (including GMOs). Such practices and management should 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. SDSs (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 including ultraviolet, ozone, mechanical filtration and vacuum distillation 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 Organization) 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 that 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, and sanitary and related practices that reduce pest attraction.
- 6.1.20. Rodent, insect, bird and other pest control shall in the first instance use non-chemical means, or shall utilise methods and substances that will not compromise the authenticity of certified products.
- 6.1.21. 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.
- 6.1.22. Pest control records must clearly identify:
- Rodent bait stations and active ingredients;
 - All chemical usage for site protection and disinfestations;
 - All fumigation of products on or off site;
 - SDSs for all treatment chemicals.
- 6.1.23. Fogging and misting shall not take place at a time during which certified products or packaging for certified products are present in the facility being treated. A minimum of 48 hours shall elapse following such treatment with prohibited inputs prior to re-entry of certified products. Notwithstanding, the above treatment shall be such as to ensure no packaging, equipment or other contact surfaces may cause indirect contamination to certified products at any time.
- 6.1.24. Written consent is required for use of prohibited pest control agents not listed in the Annexes as Allowed. Agents that are known to cause harm to the external environment shall be restricted

or prohibited in areas where organic processing or storage occurs. Automatic gas dispensers delivering prohibited treatments are not permitted.

PROCESSING, STORAGE AND DISTRIBUTION

- 6.1.25. Techniques used to process organic food shall be biological, physical and/or mechanical in nature, including but not limited to: applying pressure or heat; freezing; salting; dehydrating; and smoking (where source material will not cause contamination of end product. Any additives, processing aids or other substances that chemically react with or modify organic foods shall comply with the requirements of Annex III.
- 6.1.26. 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.
- 6.1.27. 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 approval from the CO prior to use.
- 6.1.28. The extraction of any product shall only take place with water, ethanol, plant and animal oils and naturally occurring products such as vinegar, carbon dioxide or nitrogen. These shall be of a quality appropriate for their purpose.
- 6.1.29. 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 that ensure segregation shall be maintained. Records shall be kept enabling a full audit and stocktake of stored materials at any one time.
- 6.1.30. 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.
- 6.1.31. Outgoing product shall be clearly labelled with accompanying documentation denoting the product's certification status, the certifier's 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

- 6.1.32. All processing facilities shall comply at a minimum with EPA (Environment Protection Authority) or equivalent authority requirements and in addition shall minimise environmental contamination or stress to the region in which it is situated. Operations that 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.
- 6.1.33. Best management practice shall be maintained for efficiency in energy use.
- 6.1.34. By products from processing shall be utilised or disposed of in an environmentally acceptable way, with reprocessing or recycling of materials encouraged.
- 6.1.35. The use of persistent or carcinogenic chemicals within certified areas of the processing plant is prohibited. At all times chemicals chosen for use shall take into consideration environmental impacts from production, use and disposal.

TEMPORARY CERTIFICATION OF FACILITIES

- 6.1.36. Where warehousing, preparation 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, 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 CO auditor.
- 6.1.37. 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 decertified where this Standard is not complied with in regard to preparation of certified products.

COTTAGE INDUSTRIES

- 6.1.38. 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 that it is based on. Exempt inputs may include preserving, marinating and related aids, including sugar, honey, vinegar, herbs and spices, which may be required in addition to fresh or other certified primary agricultural produce from the certified farm unit.

6.2. Animal Products

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 CO for each event of handling of certified stock. Livestock shall be handled calmly and gently at all times during transport, unloading, holding and slaughter.

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 signage denoting certified organic status of stock. 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. The 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 washdowns/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. Stunning equipment shall be kept in good working order, and effective backup shall be available in the case of 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 the quality manual or related documented procedures shall outline staff responsibilities, 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.

6.3. Durable Foodstuffs

All requirements as outlined in section 6.1 shall be complied with for durable foodstuffs 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 utilise 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 (where unavailable in organic form).
- 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. Non-GM 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. 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 only be added if required by 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 that 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, biocontamination 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, management systems shall be such to ensure no inadvertent mixing can take place. This may include physical separation, signage, separate harvesting/drying times or related practices that 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 or similar means shall be used 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 that 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. Spent or processed materials should be recycled or reused either as fuel or as a farm input where feasible.

6.4. Perishables (Fruits, Vegetables) & Wet Processing

The following sectors may achieve certification on condition of compliance with 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. Miscellaneous Processed Products

6.5.1. Pet Foods

- 6.5.1.1. For pet food to be certified, at least 95% of ingredients of agricultural origin shall be from sources produced in compliance with this Standard.
- 6.5.1.2. 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.
- 6.5.1.3. Vitamins and minerals from natural sources may be added to boost nutritional status of end product as part of a balanced approach to natural nutrition. Only where natural sources are unavailable synthetic sources may be permitted.
- 6.5.1.4. End product shall not contain prohibited substances such as preservatives and colours other than those listed in Annex III.
- 6.5.1.5. End product shall be nutritionally adequate such as to maintain good animal health.

6.6. Cosmetics and Skincare Products

Certification of cosmetic products is to COSMOS Standard. The COSMOS Standard and technical guides are available from the links in Annex VIII.

6.7. Natural Fibres / Textiles

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

Wool

- 6.7.1. 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 CO. Contaminating solvent-type scours are prohibited.
- 6.7.2. 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.
- 6.7.3. Where used, veterinary or food grade light mineral oil (paraffin) and emulsifiers shall be biodegradable and water soluble.
- 6.7.4. Wool products bearing certification status shall require treatment in conformance with this Standard throughout the entire production and treatment process.

Cotton

- 6.7.5. 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.
- 6.7.6. All areas of production that also process uncertified cotton or other materials shall be fully cleaned down to remove all lint, trash and other matter that 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 as uncertified.
- 6.7.7. Ginning shall ensure complete segregation of certified and uncertified materials to prevent mixing or contamination.
- 6.7.8. Gin trash, burrs, motes and seeds that are segregated from certified cotton runs may be utilised as certified materials while they continue to conform to the requirements of this Standard.
- 6.7.9. 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, biopolishing, colour brightening and softening

- 6.7.10. 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.
- 6.7.11. **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.
- 6.7.12. Chlorine, sodium hypochlorite, optical brighteners and/or bluing, or perborate bleaches including sodium perborate and sodium monopersulphate are prohibited.
- 6.7.13. 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.
- 6.7.14. Glue bonding agents, chemical solvent bonding or synthetic polymer bonding are prohibited.

Finishing

- 6.7.15. Formaldehyde and formaldehyde urea resins, silicone or silicone-based finishes, synthetic gums, oils or waxes are prohibited.

- 6.7.16. 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

- 6.7.17. 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.
- 6.7.18. All production units shall have effectively functioning sewerage systems to deal with modifying output products to prevent environmental contamination.
- 6.7.19. 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.
- 6.7.20. Biodegradability 28 days toxicity for aquatic organisms (OECD 302A)
- | | | |
|-------------------|------------------------|-------------------|
| Prohibited | <70% | <100 mg/L |
| Prohibited | <1 mg/L | |
| Restricted | <70% | >100 mg/L |
| Restricted | >70% | 10–100 mg/L |
| Prohibited | where toxic to mammals | LD 50 <2000 mg/kg |
- 6.7.21. All products and metabolites used shall have safety data sheets and related information available at the production unit

7. MISCELLANEOUS PRODUCTION SYSTEMS

7.1. Honey and Bee Keeping

The requirements below are additional to other requirements laid out in this Standard – e.g., section 6 Processing and section 4 regarding non-use of prohibited inputs on lands where foraging occurs, and criteria for records in section 3.

Certification may occur following a 12-month period under the auditing system of the CO 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 organic 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. The first extraction from a converting colony must not be labelled or marketed as organic.
- 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 km radius of pollution sources that may cause contamination of honey by returning and/or actively foraging bees. Such sources may include conventional orchards and crops, livestock dip sites, urban centres, sanitary landfills, garbage dumps, contaminated water, golf courses and GMO 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 where bees are actively foraging shall be verified to have been in compliance with this Standard for a minimum prior period of three years and consist of organically managed crops and/or native vegetation and/or natural range land and pastures, which must provide sufficient forage to fulfil nutritional needs. 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 if required. 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 continuously available 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 CO by the operator and be made available at each audit. Maps shall display the 5 km radius and include details such as the predominant flowering species, location and number of hives and their movement, and the collection period. Hives shall be randomly audited by the CO 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 trails 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 for inspection by the CO 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 CO 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 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.
- 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 the case of non-availability of organic feed supplements, any use of non-organic feeds will render the subsequent first extraction as non-organic. Any use of supplementary feeds shall be recorded, including details such as: type of product; dates; quantities; and hives where it is used.

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; plant extracts; essential or etheric oils, and not within 30 days of honey flow. 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. Preference should be given to phytotherapeutic and homeopathic treatments. Synthetically compounded materials for bee husbandry use (e.g., antibiotics, miticides and synthetic veterinary treatments) are prohibited. 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 regain certification. The treated hive may re-enter the certification system only after 12 months from date of last treatment. Ongoing testing may be required by the CO. Additional market requirements may exclude the above allowance for re-entry of nonconforming 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.

BEEHIVES AND WAX

- 7.1.21. Natural materials should be used for construction of hives. Particleboard and/or toxic wood preservatives and coatings, or other materials that may be toxic or introduce the potential for contamination of the environment, or the bee products, shall not be used. Internal areas of beehives (boxes or supers) may be painted with naturally compounded lead-free paints or water-based non-contaminating acrylic paints. Vegetable oil 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 a contamination risk to 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). Certified hives shall be clearly labelled with the certification number or similar means of identification of the operator – e.g., 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 made available upon request by the CO.

- 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 or extraction. Non-chemical repellent systems only shall be used. 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. The use of combs that contain broods is prohibited for honey extraction.
- 7.1.29. Extraction and processing temperatures shall not exceed 45 degrees Celsius and shall be limited in time to retain honey quality and integrity.

STORAGE

- 7.1.30. Honey shall be stored below 45 degrees Celsius and not be stored under conditions that pose risk of contamination from containers or surrounds. Galvanised drum storage shall be for minimal times only to prevent zinc absorption. All containers must comply with food grade Standards – e.g., polyethylene drums.
- 7.1.31. Storage containers shall be labelled with the operator's name, address and signage denoting certified organic status, certification number, date of harvest and floral source where known.
- 7.1.32. In relation to export shipments, a sample from each consignment shall be held for potential testing of contaminants. 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. Greenhouses, Nurseries and Seed Production

GREENHOUSES

SOILS AND GROWING MEDIA

- 7.2.1. All requirements set out by the basic production Standard in section 4 shall be adhered to for greenhouse production. 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 reuse where applicable.
- 7.2.2. Hydroponic or aquaponic systems whereby plants are fed principally through soluble fertilisers in media that are devoid of a healthy and complex soil ecology are not certifiable under this Standard.
- 7.2.3. During non-crop-production periods, a cover crop or green manure phase, or similar methods, shall be practised to ensure ongoing soil life protection and enhancement.
- 7.2.4. Media used to produce plants may include coconut fibre and other sources listed in this Standard as allowable. Media used shall be from sources in compliance with this Standard.
- 7.2.5. Media shall have contact with soil or shall be incorporated or recycled during or at the end of the cropping cycle.
- 7.2.6. Where containers are used, containers shall consist of non-contaminating products. Optimally such containers shall be reusable where phytosanitary considerations are satisfied. Where this is not possible, recycling of products and/or disposal in environmentally sensitive ways is required.
- 7.2.7. Sterilisation of growing containers 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.
- 7.2.8. 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 verification that the plant has a complex healthy root structure.

CROPPING AND HOUSE MANAGEMENT

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

NURSERY PRODUCTION: SEED AND PROPAGATIVE MATERIAL

- 7.2.12. 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.
- 7.2.13. Certification of an operation and crop produced in containers is possible following verification of one full production season complying with this Standard, or in the case of perennials either two growing periods or 12 months, whichever is longer.
- 7.2.14. 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 4.7. Crop separation may be either time- or space-based to ensure no cross-contamination.
- 7.2.15. Organic seed production shall not occur on sites where GMO seeds or crops have been produced within the past five years.
- 7.2.16. Seeds produced from land units in accordance with section 4 of this Standard, where such land units have been managed in accordance with section 4 for a minimum of three years prior to harvest of the seeds, may be certified organic and be marketed as such.
- 7.2.17. Seeds produced from land that has been managed in accord with section 4 for less than three 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
Practices permitted for organic plant breeding	Combination breeding	Mass selection	Generative propagation
	Crossing varieties	Pedigree selection	Vegetative propagation including: <ul style="list-style-type: none"> • 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 in addition to the following. Sprout production systems may achieve certification after two production cycles have been under an organic auditing and inspection system. Parallel production as defined in section 3.6 is not allowed for sprout production.

- 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 Organization Standards for drinking water. Levels of chlorine or fluoride shall comply with potable water standards, and if municipal water is used for final rinsing, measures to reduce chlorine levels must be employed.
- 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. Pest and disease control shall be managed in a preventative framework, so as to eliminate or reduce the need for non-allowed inputs.
- 7.3.5. 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.
- 7.3.6. 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 in addition to the following. Mushroom production systems may achieve certification after a precertification and auditing system under the CO 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. Two or more production cycles must have been produced under organic conditions compliant with this Standard prior to products being sold as organic. Parallel production as defined in section 3.6 is not allowed for landless mushroom production.

- 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 uncomposted materials used shall be from certified organic sources or from registered Allowed Input sources produced in compliance with this Standard.
- 7.4.3. 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 degrees Celsius) prior to use, to ensure food safety risks are managed effectively. All composts and growing media used (from the commencement of the composting process) shall be audited and certified for compliance with this Standard.
- 7.4.4. A healthy growing environment must be maintained, through proactive management of sanitation, proper airflow, and removal of spent material. To assist this process, the following methods may be employed: controlled atmosphere (airtight vessels containing carbon dioxide or nitrogen, infrared radiation and forced air circulation); physical methods for fly and pest control; steam; heating; ethanol and hydrogen peroxide treatment of buildings and equipment, where appropriate.
- 7.4.5. Steam is allowed for final sterilisation of compost. Use of any sanitising products shall require rinsing of equipment prior to introduction of a new medium.
- 7.4.6. Spawn shall come from certified sources, unless unavailable in sufficient quality and quantity.
- 7.4.7. No GMO products or processes shall be used in any part of the production phase.

LOG-GROWN PRODUCTION

- 7.4.8. Logs to be inoculated shall be organically produced or shall be from sources that have not been treated with prohibited substances that may pose contamination risk to product.
- 7.4.9. 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 proactive 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 that 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 that may compromise the area's ongoing ability to function naturally as a complete ecosystem. The collection must not affect the stability of the natural habitat or the sustainable maintenance of the species in the collection area.
- 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 that 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 the CO.
- 7.5.5. Wild harvest areas are required to be a satisfactory distance from conventional farming or related practices that may pose contamination risk to the operation.
- 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 or peoples in the region, a management program must be in place that considers their impact and input into the region. These operators must be taken into consideration by the licensee when assessing the entire region for sustainable and appropriate resource use.
- 7.5.9. Wild harvest operations must not violate indigenous landholder rights.
- 7.5.10. Operator and/or licensee must exhibit a proven working knowledge and management ability for the region and ecosystems in question.
- 7.5.11. 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.
- 7.5.12. The operator must issue instructions to the collectors and any local agents that at least defines the area of collection and informs them about the Standard and other requirements for certification. The collectors and relevant agents must sign statements to say that they have followed the instructions. The operator must keep a record of these instructions and statements.
- 7.5.13. The operator must keep a record of all collectors, and the quantities bought from each collector.
- 7.5.14. Any local trading agents must be under contract to the operator. The operator must keep a record of these contracts.
- 7.5.15. 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.
- 7.5.16. 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 in section 4, as well as wild harvest production requirements in section 7.5. Requirements as outlined by an industry (and CO) recognised government and/or NGO sustainable forestry Standard for forestry management shall also be complied with 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 that 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 OMP 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 (e.g., 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.
- 7.6.13. Certification as organic shall be achieved after a minimum of 12 months under an auditing system, with documented evidence of compliance with this Standard for the duration of the production cycle of the products to be certified.

7.7. Aquaculture

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 OMP and ongoing activities to maintain certification.

SITE SELECTION AND MANAGEMENT

- 7.7.1. Sites for organic aquaculture production shall be chosen giving consideration to minimisation of potential contamination with non-allowed inputs or other pollutants. In addition, the establishment of an organic aquaculture operation shall not negatively impact upon the surrounding environment or ecosystems. This shall include consideration of the natural ecological function of the water body.
- 7.7.2. Maps or sites and production areas, and a full description of installations and infrastructure are to be submitted to the CO, and maintained on file by the operator.
- 7.7.3. If production of organic and non-organic aquatic products is conducted, section 3.6 of the Standard applies. In the case of Aquaculture, consideration must be given to water distribution systems, tides and water flows, and how these may be managed to prevent contamination of organic products.
- 7.7.4. A Sustainable Aquaculture Management Plan (SAMP), or equivalent, is required to be prepared as part of the OMP (see section 3.4.1.2). The plan shall be specific to the operation in question, and shall include such an environmental assessment, approach for monitoring of environmental effects, minimisation of impact on the environment of the area, maintenance of infrastructure etc.
- 7.7.5. Where practical, renewable energy sources shall be chosen, and waste minimised and/or recycled.
- 7.7.6. For conventional (non-organic) operations converting to organic, a conversion period of 12 months shall apply. During this time, two audits by the certification body must be conducted. Wherever possible, full draining, cleaning, flushing and disinfecting of ponds, containment units etc., should be conducted prior to converting to organic methods.
- 7.7.7. Water sources shall be verified to pose minimal 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 tests will be required to verify the contaminant status of the aquaculture environment.
- 7.7.8. For open marine and freshwater environments the prevailing natural ecological balance shall remain significantly undisturbed, ensuring that natural populations are not endangered.
- 7.7.9. 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.

AQUACULTURE ANIMALS

- 7.7.10. Species-specific management practices, including breeding activities, shall be detailed in the OMP.
- 7.7.11. Preference shall be given to production of endemic species, and strains that are adapted to local conditions, feed resources etc. Polyploid or genetically engineered species are not allowed.
- 7.7.12. For breeding purposes and when organic aquaculture animals are not available, wild caught or non-organic aquaculture animals may be brought in. Such animals shall be kept under organic management for at least three months before they may be used for breeding.
- 7.7.13. For on-growing, when organic juveniles are not available, non-organic juveniles may be brought in. In such cases, at least the latter two-thirds of the production cycle shall be under organic management.
- 7.7.14. The collection of wild juveniles is restricted to the natural influx of fish or crustacean larvae when filling ponds, containment systems and enclosures.
- 7.7.15. Fish shall be raised under organic principles from fingerling stage, and shall be traceable by batch at least from introduction to harvesting.
- 7.7.16. Certified fish shall not come in contact with uncertified stock during their lifecycle. Parallel production of organic and non-organic fish of the same species, where there is no visual differentiation between them, is not permitted.

- 7.7.17. Construction and maintenance of holding systems shall not pose contamination risks to water or stock and shall enable the species in question to satisfy its natural behavioural patterns, including consideration of stocking densities, water quality, oxygen levels, temperature and lighting as it relates to geographical location, and in the case of freshwater fish, the nature of the floor or bottom of the enclosure.
- 7.7.18. 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.
- 7.7.19. Disease and pest control shall take the form of proactive management practices rather than substance use. Appropriate following activities shall be documented, carried out and recorded. In the event of critical (non-routine) prohibited input use, treated sections and stock shall be decertified. It is not possible to recertify 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.
- 7.7.20. Uneaten fish-feed, faeces and other waste shall be appropriately removed to minimise risk of environmental damage or disease, and to avoid attracting insects or rodents.
- 7.7.21. Aeration is permitted where required for animal welfare and health; practices are to be included in the SAMP or OMP, and recorded.
- 7.7.22. The use of oxygen is restricted to exceptional cases, such as sorting, stress or where risks to animal welfare exist.
- 7.7.23. The use of UV light, ozone, artificial heating or cooling of water, or closed recirculation systems is only allowed in hatcheries and nurseries.
- 7.7.24. Artificial lighting, if used, should be appropriate to the species, and is limited to 16 hours per day. Abrupt changes to light intensity should be avoided.
- 7.7.25. Aquatic animals shall not be exposed to undue levels of stress during farming, harvesting, transport or slaughter, shall not be out of water for more than 30 seconds, and shall not be allowed to escape into the surrounding environment. Should escape occur, appropriate action should be taken.
- 7.7.26. Processing of stock shall take place through certified processors only, in accord with section 6.
- 7.7.27. Clove oil, ice slurry, or carbon dioxide are permitted for the sedation of fish for pre-slaughter or transportation periods. Synthetic chemical tranquilisers are not permitted.

BIVALVE MOLLUSCS

- 7.7.28. Bivalve mollusc production areas shall be clearly marked, and stock restrained by nets or similar means. If predator nets are used, risks to non-target species must be minimised.
- 7.7.29. Collection of seed from wild areas should be from natural settlement on collectors, or where natural surplus occurs. Such seed from non-organic sources may be used where organic sources are not available.
- 7.7.30. Stocking densities and cultivation methods shall be such to ensure optimal animal welfare and environmental outcomes. Bottom cultivation is only allowed where it is verifiable that no significant environmental impact is caused.

DIET

- 7.7.31. 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. For carnivorous animals, no more than 60% of the diet may comprise of plant products. Minerals and vitamins used as feed supplements must be naturally sourced.
- 7.7.32. Feed of agricultural origin shall be from sources produced and certified in compliance with this Standard. Where such sources are not available, up to 5% of agricultural dry matter intake may be from non-organic sources.
- 7.7.33. The feed manufacturing premises and feed formulations shall be audited and assessed to be in compliance with this Standard.
- 7.7.34. Where marine food sources are used, a minimum of 50% of the total diet shall be composed of byproducts 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 an approved international certifier.
- 7.7.35. 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.
- 7.7.36. 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 SEAWEED, SEA VEGETABLES AND ALGAE

- 7.7.37. An initial estimate of biomass must be provided with the application for certification. Up-to-date bed maps are to be supplied annually, along with verification of ongoing monitoring and documentation of populations.
- 7.7.38. In instances of direct harvesting, harvesting of sea vegetables shall be carried out in a manner that assists natural replenishment of vegetative populations.
- 7.7.39. Harvesting shall not impact negatively on other natural species that utilise the sea vegetables in question.
- 7.7.40. 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.

CULTIVATED SEAWEED, SEA VEGETABLES AND ALGAE

- 7.7.41. Seaweed cultivation in marine environments shall only utilise nutrients naturally occurring in the environment, or those from organic aquaculture animal production nearby.
- 7.7.42. For land-based systems, where external nutrient sources are used, the water leaving the operation should not contain any higher nutrient load than the inflowing water.

HARVESTING, TRANSPORT AND PROCESSING

- 7.7.43. No prohibited inputs shall be used at any period during the harvesting and processing period.
- 7.7.44. Contamination potential shall be managed and prevented or minimised during the entire period from harvesting to processing.
- 7.7.45. There shall be no contact with uncertified products at any period during harvest, transport and processing.
- 7.7.46. Live fish shall be transported in suitable clean tanks with clean water with suitable temperature and dissolved oxygen levels.
- 7.7.47. If the final product is fresh seaweed, flushing shall use seawater. If the final product is dehydrated seaweed, potable water may be used.
- 7.7.48. Drying of seaweed shall not include direct contact with flames.
- 7.7.49. Biofouling organisms shall be removed from equipment only by physical means or by hand and where appropriate returned to the sea at a distance from the farm.

OTHER AQUACULTURE VEGETABLE PRODUCTION

- 7.7.50. 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.
- 7.7.51. Such production units shall be situated on currently certified land units or land units certification has been applied for.
- 7.7.52. 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 the area is managed in accord with section 4 of this Standard where relevant (including all inputs used for production).

7.8. Special Projects and Growers Groups**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 that undertakes to maintain certification by entering into a licence agreement with the CO outlining requirements to comply with this Standard. The group shall be formed around one main product (e.g., coffee, herbs) to be certified as a group and shall be constituted of small landholders only. Large farming units, processing units and traders require individual certification and shall not be certified as part of the group while group members shall be in geographic proximity.
- 7.8.2. Produce must be sold under the group name – as part of a coordinated marketing strategy (i.e., individual farmers in the scheme may not sell certified product independently) and there shall be an Internal Control System (ICS) in operation. The group shall be large enough to support a viable ICS to ensure ongoing conformance to this 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 that shall include agricultural extension (training and demonstrations). The operator shall also provide sufficient field management staff who 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 that 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 that enable trace-back to individual farmers and farm units of all produce shall be maintained by the operator.
- 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 that list all current farmers in the scheme, their details and their individual verification of conformity with and commitment to this 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 and updates on changes to organic certification requirements.
- 7.8.11. The licensee shall ensure that all members have access to a copy of the Standard (or relevant sections) presented in a way adapted to their language and knowledge. This may include 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 operator shall be responsible for maintaining the ICS, which shall include in-house education/extension (regarding Standards and organic production methods), internal auditing and corrective actions relating to the group. This shall include the allocation of resources and personnel to enact and maintain this. The operator shall train internal auditors to conduct periodic (at a minimum annually) internal audits on all the members of the group. Such audit results and auditing records shall be made available to auditors at the time of the audit.
- 7.8.13. Annual audits by the CO 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. Such audits will also include assessment of the effectiveness and suitability of the materials referred to in section 7.8.11. The number of farms or plots audited by the CO auditor, for a normal risk situation, must be at a minimum 10, and not less than the square root of the number of farms or plots in the group. For medium or high-risk operations, the number of farms audited must be at least 1.2 times, or 1.4 times these numbers, respectively. Selection of the farms or plots to be audited by the CO will be on the basis of risk, and include consideration of group size, homogeneity, years of experience etc. Farms or plots audited by the CO must be predominantly different from one year to the next. Such audits shall be recorded by the licensee's field staff, and maintained along with records that document internal 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 decertification 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, that outlines action taken following observed non-conformance with the Standard by individual producers. Failure of the ICS 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.

SOCIOECONOMIC BENEFITS

- 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:
 - a. Covering soil with mulches or crops when not in use;
 - b. Terracing and contouring;
 - c. 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 – Ethical Trade

This section is outlined as additional specifications to organic certification for Special Projects and Growers Groups. The following is outlined to enable such operations to integrate requirements into one program, to receive one audit, that may lead to both organic and Fair Trade or Ethical Trade certification. All other relevant production requirements and restrictions outlined in this Standard shall be applied to all operations certified to Fair Trade or Ethical Trade requirements.

In addition the entire production and marketing chain, to end point of retail, shall be certified in accordance with this Standard and this section in order for end products to bear logo and certification reference to the primary produce arising from certified fair trade – ethical trade producers. This shall include the auditing and certification of operations maintaining auditable records and documents outlined in sections 6 and 8 respectively.

Producers

7.9.1 Social Development

- 7.9.1.1. The producer organisation shall demonstrate that certified product trade 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 ethical trade (including the Premium, being the additional farm-gate-traded price above non-certified product) 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 ethical trade 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 ethical trade 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 that enables control by the members. There shall be a “General Assembly” with voting rights for all members as the supreme decision-making 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 organisation.

NON-DISCRIMINATION

7.9.1.16. If the organisation restricts new membership, the restriction shall not contribute to discrimination against 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 Ethical Trade sales – see above) transparently and use it in line with the requirements outlined in this Standard.

7.9.2.2. The use of the Ethical Trade Premium is decided by the General Assembly and properly documented.

7.9.2.3. As soon as the 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 that were accepted by importers.

7.9.2.6. Demand for the producers' Ethical Trade 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 this Standard are required, particularly sections 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 workers shall democratically elect a workers' 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 CBA.
- 7.9.4.11. 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 ethical trade.
- 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 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 CBA 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 biopesticides that are otherwise approved for use under the ACOS: 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

The key objectives of certification of market outlets, which may include online and home delivery services, 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 accordance 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. Retail and butcher stores shall be subject to unannounced audits where they are deemed high risk. These inspections may include product sampling where deemed necessary by the CO. Packaging occurring instore shall conform to requirements for preparation of organic products.
- 8.1.3. 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.
- 8.1.4. 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.
- 8.1.5. 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 3.7. 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 instore.
- 8.1.6. 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.
- 8.1.7. 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.
- 8.1.8. Onus is on the retailer to ensure all traded produce is sourced from currently certified producers. This shall include maintenance of updated certificates or similar documentation that outlines producer certification number, certification status and expiry date. A register of accredited certification agencies shall also be maintained and/or referenced by the operator.
- 8.1.9. **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

- 8.1.10. Whole retail chains, multistore outlets or selected retail outlets within a retail chain or group may be certified under this Standard where there is single ownership and full management control exercised by one single commercial entity.
- 8.1.11. Retail chains or multistore retail outlets require an umbrella management structure that are to be included in annual audits arranged by the CO. Annual audits will include a review of all internal audits conducted on retail outlets to verify the effectiveness of the umbrella management structure.
- 8.1.12. Annual audits by the CO shall include inspection of at least 20% of all participating retail outlets connected to the chain with all outlets being inspected over a five-year period. Umbrella management control shall include regular internal audits of each outlet, which are documented, recorded and made available to the CO on request. Such internal audits should occur within each twelve-month period and all internal audits shall be assessed by the CO via third-party audits for conformance to this Standard.

- 8.1.13. Documented procedures shall be maintained by the umbrella management group for monitoring of stores and certified products via internal audits, procedures for individual store non-compliance, and sanctions imposed on non-complying stores and/or products.
- Retail stores based online are required to comply with the requirements set out in section 8.2 and section 6 where applicable.

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 dispatch of relevant organic produce certificates for export in addition to all other regulatory requirements and documents. Contact the 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 traceback to all suppliers.
- 8.2.8. Onus is on the operator to ensure all traded produce is sourced from currently certified producers. This shall include maintenance of updated certificates and/or transaction certificates from certifiers deemed acceptable by the CO.
- 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 that 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 that shall include the relevant certification number, level and certifying organisation, and 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 that 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. See also section 6.1.24.
- 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 the CO to this Standard or an equivalent certification organisation approved by the CO to an equivalent standard.
- 8.2.15. **Importers** and others utilising certified produce other than produce certified to this Standard shall maintain a register of all accredited certification agencies 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.
- 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 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 Bud logo may be used on the menu. See the CO’s Labelling & Logo Style Guide for an outline of logo types and uses.
 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. Preparation of ingredients and all ingredients used in meals claiming organic status shall conform to the principles outlined in section 6 on preparation and other relevant sections of this Standard.
- 8.3.2. At a minimum the operator shall ensure that at any one time:
1. Three or more dishes, with one 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.
- 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 traceback 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 the CO. Prior to initial use, an inspection of facilities shall be undertaken by an assigned auditor of the CO. 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 (e.g., gassing of bananas) treatment shall not take place in conditions that 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 that 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. CO 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 that may in the future pose risk of contamination to certified materials.

- 8.4.10. Where prohibited materials are utilised within transport 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 the CO 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.

8.5. Farmers' Markets and Other Markets

8.5.1. Organic Farmers' and other Markets

1. All vendors claiming to sell organic products shall be certified by a recognised certification agency for organic and recognised equivalent organic Standard (e.g. DOAWR, IFOAM/IOAS, JAS, USDA NOP and EU approved agencies and standards).
2. Each certificate shall authenticate individual farmers where claim is being made of being produced by that seller (i.e., farmer) or otherwise a retailer or wholesaler certified must include an audit of their (market) site by certifier.
3. Clear display of the stall holder's organic certificate is required on the stall or registered stall number or marking system that enables a consumer (and auditor) to check certification status of each stall holder during market hours.
4. Market operator use of Bud logo and reference to being a certified market shall only occur in accordance with the Licence Agreement or prior approval from the CO and based upon compliance to this Standard.

8.5.2. Market Internal Audit and Policy

1. Market operators shall have a documented and stallholder-signed and -agreed policy in relation to the sale of organic product, confirming compliance to certification requirements as above.
2. Market operators shall ensure that prior to entry of a new stallholder, that the stallholder has current organic certificate for their farming operation(s) and/or additional certificates (retail/wholesale) if also active in these areas.
3. Market operators shall have an internal checking/auditing system to ensure ongoing currency of stall holders of certificates – this is to be a basic checklist that an external auditor can confirm – to be conducted every year and/or on the date of expiry of existing certificate to ensure ongoing currency of certificate.
4. Market operators shall have internal mechanisms and personnel with responsibility and authority to follow up on any consumer or other complaints or allegations of non-compliance with this Standard.
5. Any other activities such as processing or further modification of food then on-sold as organic shall be accompanied by appropriate additional certification – e.g., organic processor certification.
6. Annual as well as random audits shall be conducted by the CO on the markets and each stallholder to confirm compliance with this Standard and these market requirements.
7. Stallholders shall ensure they make available resources (documents, certificates and personnel) at times of audits, including random audits that may occur without notice during market hours.

9. MANUFACTURED INPUTS, AIDS & ADDITIVES AND APPROVED SERVICES

- 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 that conform to the following criteria may be added for consideration to the Allowed Input Register. This register is listed on the website www.austorganic.com.au and published quarterly. The register is an AO publication maintained for the benefit of the organic industry and certified operators. The register confirms approval for use in compliance with this Standard. Onus is on the operator to assess where additional requirements may apply in markets such as the US, Japan, etc. This may include requirements to scrutinise ingredients such as non-actives or synergists in a product.
- 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 that are assessed following application, and that are deemed to conform to the following criteria, may be licensed to bear an AI registration number along with the Registered Product logo. The active ingredients of such inputs shall comply with (i.e., 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 that 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/or 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 that pose an ongoing environmental risk to the farming operation, and shall not add to the overall pesticide load in the soil. Products shall be assessed in relation to standard rates and frequency of application.
- 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. The use of ionising radiation for treatment of agricultural inputs is prohibited.
- 9.2.11. No human wastes such as urban or multisource 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, socioeconomic aspects and workplace 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 – e.g., flour as a thickening agent.
- 9.3.3. Other food products by nature not certifiable as organic but which are produced only by natural (e.g., physical or mechanical) processes – e.g., salt.
- 9.3.4. Second preference is for isolated food substances produced physically or by enzymes – e.g., starches, tartrates, pectin – or purified products of non-agricultural origin such as microorganism starter cultures, acerola fruit extract or 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 that may replace the use of additives and aids, and such aids and additives otherwise assist in minimising physical or mechanical damage that 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. Approved Services

- 9.4.1. In some instances it is possible to register a service that is deemed to be in accord with this Standard. Such services may include the following:
- 9.4.2. Services/processes that are reliant upon physical, biological or mechanical means (e.g., vacuum distillation of water, microbial digestion of products) where no synthetic chemical or other prohibited procedures or processes are utilised may be registered as an Approved Service or Process.
- 9.4.3. 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 utilisation of this service as an approved service.

9.4.4. Education, Training and Advisory Services

Where an operator is providing educational or technical services to the organic industry or interested parties, approval may be sought from the CO for use of the AO Approved Products logo in relation to such activities. Such approval shall be in writing from the CO in accord with usual criteria for approval for use of such labels or marketing materials.

Such providers or trainers will be required to have been verified to have achieved a level of competency in the technical domain being advertised or promoted by the AO Approved Products logo, which shall usually include approved and nationally registered training courses such as auditor and/or advisory training courses, relevant technical degrees and qualifications, along with sufficient industry experience (a minimum of three years) in the area of expertise.

9.4.5. Scientific and Technical Services and Research

Scientific and research institutes may be approved for use of the AO Approved Products logo where such research or services have been deemed by the CO to be aligned with, and compliant with, the production or technical requirements of this Standard for the research in question.

Such approval for use of the AO Approved Products logo shall be limited in scope to the specific research domain being managed by the operation in question. In relation to primary production system research units, where there is no sale of end product as organic, the requirement for buffer zones with neighbouring activities may be waived where it is otherwise impractical to maintain a certified area for research purposes.

9.5. Labelling Requirements for Allowed Inputs and Approved Products

9.5.1. This section comes in current from 31/08/2018 until such time as a new edition, or amendment, is released under the authority of Australian Organic. All changes to this Standard that differ from subsequent amendments of the Standard shall be implemented no later than "12 months" without prior request and acceptance from the certification office (CO).

9.5.2. All products approved to be marketed as Allowed Inputs or Approved Products shall include the following details on all packaging bound for retail sale (unless otherwise overridden by other market requirements):

1. The name of the product or a description of the material;
2. Appropriate reference to registration status (i.e. Registered Product or Approved Product);
3. Relevant logo;
4. Name and address and/or registered mark of the certified operator or owner of the product and/or label as required by law;
5. Clear reference to any restrictions on the use of the product;
6. Recommended application methods and use rates of the product.

*NB: Onus is on the operator to ensure compliance to other market requirements

9.5.3. There may be no reference or indication that the entire product is "certified organic" or "organic" in the product name or on the label. In instances where individual ingredients are certified organic they may be indicated as such on the label so long as claims are not misleading.

9.5.4. In the case of bulk consignment, wherever feasible labels shall include reference to registration and a transport declaration shall accompany all consignments to ensure the authenticity and control of the certified product is maintained.

9.5.5. Failure to maintain compliant labelling and receive written confirmation from the CO as to the acceptability of such labels may result in mandatory removal from the marketplace of all product that is deemed to not comply with this Standard or which fails to achieve approval of the CO.

9.5.6. A copy of all labels must be provided and approved by the CO. Label approvals must be kept on file by the operator.

ANNEXES

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. Similarly, synthetic processing aids and ingredients are generally prohibited in organic foods unless specifically listed in the following relevant Annexes.

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 and feeds and food ingredients and aids.

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 AO 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 AO 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.

The list below notes whether or not you are permitted to use such products in your certified farming operation for the Australian marketplace. Note that there may be additional export market requirements or restrictions on some product or input use. Onus is on the operator to ensure they are also compliant with these requirements (e.g., USDA NOP, Japan (JAS) etc.).

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 certification program. Please check with your state agricultural department, the Australian Pesticides and Veterinary Medicines Association (APVMA), 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 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 5a.

- Products prohibited in this Standard include most synthetically derived and highly soluble fertilisers such as superphosphate, 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 markets such as the US to ensure that they are compliant with the detail of such relevant standards. In some instances these standards and other regulatory requirements 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 (i.e. not for post-harvest use). Some inputs that are prohibited or restricted for animal treatment or other uses are listed. 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: The list below notes whether or not you are permitted to use such products in your certified farming operation for the Australian marketplace. Note that there may be additional export market requirements or restrictions on some product or input use. Onus is on the operator to ensure they are also compliant with these requirements (e.g., USDA NOP, Japan (JAS) etc.).

Note also that use of inputs such as manures, liquid fertilisers and other biological products, if not registered by AO as an Allowed Input, should be used with care. 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

ANNEX I	ACOS	CROP PRODUCTION INPUT NOTES
A		
Animal byproducts and materials	R	Includes meatmeal, bone meal and urine. Ideally fully composted prior to use. Also see separate listings under "Manures". Leather byproducts are prohibited. Application of abattoir byproducts is only allowed in restricted instances for use as fertiliser on areas where ruminants or herbivore livestock are to be grazed. Note some market prohibition for this practice (e.g., UK)
Aquatic plant products including algae	R	Natural (non-synthetic) extracts are allowed. Extraction and stabilisation with most synthetic solvents is prohibited. Potassium hydroxide and sodium hydroxide are permitted. Aquatic plant products are usually prohibited if they contain other synthetic preservatives, such as formaldehyde, or are fortified with prohibited nutrients.
Arsenate treated timber	R	Includes copper-chromium arsenate. Arsenate treated timber cannot be in contact with soil used to grow vegetables (e.g., 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 4.7. 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. Some markets (e.g., US) prohibit use of this product.
Ash	R	Ash from untreated plant sources and waste products from livestock processing (bones) only. Operators who use ash obtained from off-farm sources may be required to obtain an analysis of contaminants, including arsenic, cadmium, chromium & lead.
▪ Ayurvedic preparations	R	For plant pest and disease management.
Azadirachta indica	R	See "Neem"
B		

ANNEX I	ACOS	CROP PRODUCTION INPUT NOTES
<i>Bacillus thuringiensis</i>	A	
Basalt	A	
Beneficial organisms	A	Including but not limited to: viruses, bacteria, protozoa, fungi, insects, nematodes, plants and animals.
Biodynamic preparations	A	
Biological controls such as microbes or insects	A	
Biosolids	R	See Standard, section 4.4
Blood and blood meal	R	See animal by-products and material
Bones and bone meal	R	See animal by-products and material
Borates	R	See "Boron products"
Bordeaux mixes	R	See "Copper products"
Boric acid	R	See "Boron products"
Boron products	R	May be used as a micronutrient with a documented deficiency or observed need with a plan to avoid nutrient imbalances. See "Micronutrients"
Botanical pesticides	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.
Burgundy mixes	R	See "Copper products"
C		
Calcium carbonate	A	
Calcium	A	Natural sources or naturally derived sources, e.g., limestone
Calcium sulphate	R	See "Gypsum"
Carbon dioxide gas	R	Permitted for post-harvest
Chelates (natural)	R	Including chelates produced utilising chelants such as amino acids, citric acid, tartaric acid and other di- and tri-acid chelatants, and lignin sulphonate.
Clay	A	Bentonites, Kaolin
Compost	A	Aerobic or anaerobic – see section 4.3
Compost tea	A	Compost used for tea must be made from material that meets compost standards and does not pose end biological or other contamination risks to crops or stock.
Copper products	R	Bordeaux mixes, copper hydroxide and copper sulphates are permitted. Copper cannot be used as an herbicide and shall be used in a manner that prevents excessive copper accumulation in the soil. On an average rolling basis copper application up to 6 kg/Ha/annum is permissible as a restricted input.
Coprimeal	A	

ANNEX I	ACOS	CROP PRODUCTION INPUT NOTES
Cottonseed meal	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.
D		
Diatomaceous earth	A	
Dolomite, mined	A	Magnesium carbonate and calcium carbonate
E		
Enzymes	R	Natural sources
Epsom salts	A	Magnesium sulphate
Equipment cleaners	R	Allowed equipment cleaners include acetic acid, carbonic acid, citric acid, hydrogen peroxide, soap and water
F		
Feldspar	R	See "Mined minerals"
Fertilisers, blended	R	Operators using blended fertilisers containing restricted ingredients must adhere to the regulations for all of the restricted ingredients.
Fish emulsions	R	See "Fish products"
Fish meal	R	See "Fish products"
Fish products	R	Fish products are prohibited if they contain synthetic preservatives or are fortified with otherwise prohibited plant nutrients (e.g. urea)
Foliar sprays	R	Prohibited if product contains any prohibited materials. Shall be supplementary to soil amendments and conditioners and holistic soil building and management program.
Fruit wax	R	Carnauba or wood-extracted waxes are acceptable. Products coated with wax must be indicated as such on the shipping container or packaging and comply with importing country requirements.
G		
Garlic	A	
Granite dust	A	See "Mined minerals"
Greensand	A	Potassium silicate: See "Mined minerals"
Guano (bat or bird)	R	See "Manures, raw" for restrictions on bat or bird manure.
Gypsum	R	Mined forms that have not been chemically synthesised or modified are acceptable.
H-J		
Homeopathic preparations	A	
Hoof and horn meal	R	Note restrictions for animal products above.
Humates	R	Humates are usually natural deposits that are mined and may have high trace mineral content.
Hydrogen peroxide	A	

ANNEX I	ACOS	CROP PRODUCTION INPUT NOTES
Inoculants	R	See "Microbial products"
Insect extracts	A	
Iron (III) phosphate	R	Plant pest control
K		
Kelp extracts	R	See "Aquatic plant products"
Kelp meal	A	
L		
Langbeinite	A	Also known as "Sulphate of potash – magnesia". See "Mined minerals"
Lime sources	A	Including oystershell flour, dolomite, aragonite, sugar lime and mined CaCO ₃
Lime sulphur	R	Includes calcium polysulphide. Foliar application as a fungicide is restricted. May be used as an insecticide in restricted instances. Note potential impact on beneficial insects.
M		
Magnesium carbonate	A	Naturally occurring in dolomite and magnesite
Magnesium sulphate	A	Kieserite or Epsom salts
Manures, composted	R	Must be aerobically or anaerobically composted. See "Compost" and section 4.3 of Standard.
Manures, raw	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.
Microbial inoculants	R	See "Microbial products"
Microbial products	R	Allowed materials include <i>Rhizobium</i> bacteria, mycorrhizal fungi, yeast and other microorganisms. 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.
Micronutrients	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. Micronutrients include: boron, cobalt, copper, iodine, iron, manganese, molybdenum, selenium, zinc.
Milk and milk by-products	A	Includes whey and whey products.
Mined minerals	R	Natural sources only, and not chemically treated to increase solubility, or for any other purpose.
Molasses	A	
Mulches	R	Certified and/or registered AI products preferred, and required where contact with certified end product occurs.
Mushroom compost	R	See "Compost" for guideline.
N–O		

ANNEX I	ACOS	CROP PRODUCTION INPUT NOTES
Neem extract	R	Powder and seeds. See "Botanical pesticides" for restrictions.
Neem cake/meal	A	Used as a soil amendment or fertiliser.
<i>Nicotine</i>	P	<i>Prohibited</i>
Oils	R	See "Petroleum distillates"
P		
Peat moss	R	Permitted for nursery production.
Perlite	R	Permitted for nursery production.
Petroleum distillates	R	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. Some market restrictions may apply.
Pheromones	A	
Phosphate rock	R	See "Mined minerals"
Plant extracts	R	Natural sources only. Synthetic ingredients not permitted.
Plant products	A	Includes plant preparations, extracts and teas.
Plastics for mulch and solarisation	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.
Pomace	A	
Potassium bicarbonate	A	
Potassium glauconite	A	
Potassium permanganate	A	
Potassium soap	R	Pest and disease management
Potassium sulphate	R	Mined natural sources
Propolis	A	
Pyrethrins	R	Only naturally occurring and naturally derived forms are allowed. Synthetic pyrethroids are prohibited. Note that any Pyrethrins containing piperonyl butoxide (PB) as a synergist cannot be used.
Q–R		
Quassia	R	Extracted from <i>Quassia armara</i>
Rock dusts	A	See "Mined minerals"
Rodent traps	A	Mechanical traps are acceptable.
<i>Rotenone</i>	P	<i>Prohibited</i>
Ryania	R	See "Botanical pesticides" for restrictions
S		
Sawdust, bark & wood waste	R	From untreated sources
Sea salts, salty water	R	For plant pest and disease management
Seaweed	A	See "Aquatic plant products"

ANNEX I	ACOS	CROP PRODUCTION INPUT NOTES
Slurry	R	Composting and testing shall be required for non-certified sources.
Soap, insecticidal	R	Insecticidal soaps consisting of fatty acids naturally derived from animal or vegetable oils are permitted for use. May also be used as adjuvants/wetters (spreader-stickers, surfactants and carriers)
Sodium bicarbonate	A	Pest and disease management
Sodium molybdate	R	To correct documented molybdenum deficiencies. See "Micronutrients"
Sodium silicate	A	As a fungicidal
Sticky barriers and traps	A	Traps may include fruit fly bait stations only if mandated, and if fully enclosed in a manner which prevents contact with land or produce.
Stonemeal	A	
Straw	A	Mulch from non-contaminated source. Uncertified sources must not have contact with edible portions of crop.
Sugar	A	
Sulphate of potash	R	Natural sources
Sulphates of zinc or iron	R	May be used only to correct for deficiencies determined by soil or plant tissue testing.
Sulphur	A	
T		
Trace minerals	R	Includes micronutrients from natural sources. See "Micronutrients"
Treated seed – natural forms	R	Seeds treated with naturally occurring biological control agents, or pelletised with non-synthetic coatings such as clay are allowed. Prohibited seed treatments include synthetic fungicides and pesticides.
U–V		
Vegetable oils	A	
Vermiculite	R	Permitted for nursery production.
Vinegars	R	Natural sources.
Virus sprays	A	
Vitamins	R	Natural sources of all vitamins and synthetic sources of vitamins B1, C and E may be used in certified organic crop production.
W–Z		
Wax – carnauba	R	Waxing of citrus fruit only allowed where required by export markets.
Wetting agents	R	Natural wetting agents, including saponins and microbial wetting agents are allowed. Polyacrylamides and other synthetic wetting agents are prohibited.
Wood ash	R	See "Ash"
Worm castings and worm liquid	R	Feed source shall comply with the compost input requirements of this Standard.
Yeast	A	See "Microbial products"
Zeolites	A	
Zinc sulphate	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 5a or are contained in the following materials list.

The list below notes whether or not you are permitted to use such products in your certified farming operation for the Australian marketplace. Note that there may be additional export market requirements or restrictions on some product or input use. Onus is on the operator to ensure they are also compliant with these requirements (e.g., USDA NOP, Japan (JAS) etc.).

ANNEX II	ACOS	LIVESTOCK TREATMENT INPUT NOTES
A		
Acetic acid	R	Includes cider vinegar from certified sources.
Alcohol	R	Ethyl, methyl (methylated spirits) and isopropyl alcohol are allowed in medications and topically as disinfectants only.
Anaesthetics	R	Required for some surgical treatments. Withholding periods apply.
Antibiotics	P	Treated meat animals shall require permanent withdrawal from certification. See Table 5a for medication treatments policy.
Aquatic plant products	R	From natural sources.
Ayurvedic preparations	R	For pest and disease management.
B		
Bentonite	R	
Biological controls	A	
Boric acid	R	For pest and disease management.
Brewer's yeast	R	
Botanical products, plant extracts	R	Including but not limited to pyrethrum, quassia, neem. Tobacco extract and strychnine prohibited.
C		
Charcoal	A	
Clay	R	For pest and disease management.
Cleaning agents	R	Includes alcohol, natural soaps.
Cobalt	R	See "Mined minerals"
Copper sulphate	R	For topical use and as an essential nutrient.
D–F		
Diatomaceous earth	R	
Dolomite	A	
Electrolytes	R	May not contain antibiotics or other prohibited substances.
Epsom salts	A	See "Magnesium sulphate"

ANNEX II	ACOS	LIVESTOCK TREATMENT INPUT NOTES
Fluorosilicate	R	Magnesium form
Folic acid	R	See "Vitamins"
G–K		
Garlic, extract or crushed	R	For pest and disease management.
Herbal preparations	R	Herbs and herbal preparations taken internally by livestock must be certified organically grown and prepared.
Homeopathic preparations	R	Ingredients must comply with this Standard.
Hydrogen peroxide	A	
Iodine	A	Allowed as a feed supplement and as a topical disinfectant.
L–N		
Lime sulphur	A	
Magnesium fluorosilicate	R	
Magnesium sulphate	R	
Meat meal	R	Prohibited for ruminants and herbivores. In markets such as EU and US, prohibited for all animal feeds.
Mineral oil	R	
Minerals, non-synthetic	A	Includes mined minerals.
Minerals, synthetic	R	Limited to those approved for animal use in cases of documented deficiency. Shall not contain contaminants or prohibited substances.
Molasses	R	Non-organic molasses is allowed as a feed supplement where no organic molasses is available. See feed rations section of Standard.
Nicotine	P	<i>Prohibited</i>
O–R		
Oils, vegetable	R	May be used for external treatments or in combination with external treatments. Internal use requires certified product as part of feed ration.
Potassium permanganate	A	
Probiotics	R	
Pyrethrins	R	Only naturally occurring and naturally derived forms are allowed. Synthetic pyrethroids are prohibited. Please note that any pyrethrins containing piperonyl butoxide (PB) as a synergist are not permitted.
S–T		
Salt licks	R	Not containing urea or other prohibited substances.
Sea salts, salty water	R	For pest and disease management.
Seaweed	R	Natural sources only.
Selenium	R	May be fed or injected to livestock to treat for documented deficiencies.
Shell grit	A	
Soap	R	May be used as a disinfectant for livestock and facilities.
Sodium bicarbonate	R	For pest and disease management.

ANNEX II	ACOS	LIVESTOCK TREATMENT INPUT NOTES
Sodium chloride	R	Allowed as a feed supplement
Sulphur	A	Internally & externally for parasites
Tallow	R	Not as an internal treatment for ruminants or herbivores.
U–V		
Vitamins	R	Limited to those approved for animal use in cases of documented deficiency.
Vaccines	R	May be used for specific diseases that are known to exist on the farm or in the region, or where there is a mandate from relevant authorities.
W–Z		
Zinc sulphate	R	Mineral lick

EXPLANATION TO ANNEXES FOR PROCESSING AIDS & ADDITIVES, AND SANITISERS

Inputs into the system are generally prohibited if synthetically compounded, which is defined as a process that 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 that are obviously prohibited, such as synthetically derived chemicals.

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

It is the certified operator's responsibility to determine whether a material is listed in the following Annexes as acceptable for use in organic processing. Look for AO 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 AO 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 certification program.

RESTRICTED (R) materials may be used in organic processing under the 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 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 markets such as the US to ensure that they are compliant with the detail of such relevant standards, e.g., in the US case the USDA NOP. In some instances this and other standards will override or take precedence over the list of products in these 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. Where used, additives and processing aids must not compromise the authenticity or quality of the organic product. 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

Abbreviations used in the tables:

C – cereal products
 CB – cakes and biscuits
 CO – confectionary
 F – fat products
 FV – fruit/vegetable 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 that cannot be sourced from commercially viable certified sources (in such instances the organic management plan must outline how attempts will be made to source certified organic as this becomes available). Such products must not have arisen from GMO sources and must not have been irradiated;
- Other products as listed in this Standard as Allowed;
- Total non-organic 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 such products still comply with the allowances of this Standard;
- Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used unless they are listed in these Annexes and/or 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 Microorganisms 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 (section 9.3). See also section 3.5 regarding ingredients.

- Preparations of microorganisms accepted for use in food processing. Genetically modified organisms are excluded. Processors must use microorganisms grown on substrates that consist entirely of organic ingredients and substances listed in Annex III, if available. This includes cultures that are prepared or multiplied in house.
- Baker's 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 Aids & Additives - Selection Criteria – see section 9.3.

ADDITIVES

INT'L NO. SYSTEM	PRODUCT	USE	NOTES
INS 153	Wood ash	M	For traditional cheeses
INS 170	Calcium carbonate	GA	
INS 220	Sulphur dioxide	W	Wine only, Table VI3 restrictions apply
INS 224	Potassium metabisulphite	W	Wine only, Table VI3 restrictions apply
INS 270	Lactic acid	FV	Fermented vegetable products
INS 290	Carbon dioxide	GA	
INS 296	Malic acid	GA	
INS 300	Ascorbic acid	GA	If not available in natural form
INS 306	Tocopherols, mixed natural concentrates	GA	Antioxidant only
INS 322	Lecithin	GA	Obtained without use of bleaches and organic solvents. Milk products, milk based infant food, fat products, mayonnaise
INS 330	Citric acid	FV/W	For wine, restricted to 1 g/L
INS 331	Sodium citrates	M/ME	Also egg whites
INS 332	Potassium citrates	M/ME	Also egg whites
INS 333	Calcium citrates	M/ME	Also egg whites
INS 334	Tartaric acid	GA	
INS 335	Sodium tartrate	CO/CB	
INS 336	Potassium tartrate	C/CO/CB	
INS 341	Monocalcium phosphate	C	For raising flour
INS 400	Alginic acid	GA	
INS 401	Sodium alginate	GA	
INS 402	Potassium alginate	GA	
INS 406	Agar	GA	
INS 407a	Carrageenan	M	Natural sources
INS 410	Locust bean gum	GA	Milk and meat products
INS 412	Guar gum	GA	Milk, meat and egg products
INS 413	Tragacanth gum	GA	
INS 414	Gum arabic	M/F/CO	
INS 415	Xanthan gum	F/FV/CB/M	
INS 416	Kataga gum	GA	
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/vegetables, vegetable sauces, ketchup, mustard
INS 509	Calcium chloride	M/F/FV/SO	
INS 511	Magnesium chloride	SO	
INS 516	Calcium sulphate	CB/SO/C	For "C" in baker's yeast
INS 938	Argon	GA	
INS 941	Nitrogen	GA	
INS 948	Oxygen	GA	

PROCESSING AIDS

INT'L NO. SYSTEM	PRODUCT	USE	NOTES
INS 170	Calcium carbonate	GA	
INS 181	Tannin	W	
INS 184	Tannic acid	W	
INS 220	Sulphur dioxide	W	Note: other country restrictions and labelling requirements
INS 270	Lactic acid	M/ME	
INS 290	Carbon dioxide	GA	
INS 330	Citric acid	C/CB/CO/FV/S/SOW	
INS 501	Potassium carbonate	FV/W/C/CO/CB	
INS 513	Sulphuric acid	S	Note: country restrictions
INS 516	Calcium sulphate	GA	
INS 524	Sodium hydroxide	S	
INS 334–7	Tartaric acid & salts	GA	
INS 342	Di-ammonium phosphate	W	Only for wines destined for EU, according to Annex VI
INS 500	Sodium carbonate	M/S	Neutralising agent for milk products,
INS 509	Calcium chloride	M/F/FV/SO/S/C/CB/CO	As a coagulation or firming agent
INS 511	Magnesium chloride	SO	
INS 524	Sodium hydroxide	C	
INS 525	Potassium hydroxide	S	
INS 526	Calcium hydroxide	C/CB/CO/FV/S/SOW	
INS 551	Silicon dioxide	C/CB/CO/FV/S/SOW	
INS 553b	Talc	C/CB/CO/FV/S/SOW	
INS 901	Beeswax	GA	Releasing agent for plant products
INS 903	Carnauba wax	GA	Releasing agent for plant products
INS 941	Nitrogen	GA	
	Activated carbon	GA	For processing plant products
	Asbestos-free filter materials	GA	
	Bentonite	C/CB/CO/FV/S/SOW	
	Casein	C/CB/CO/FV/S/SOW	
	Diatomaceous earth	C/CB/CO/FV/S/SOW	
	Egg white albumen	W	
	Ethanol	GA	
	Isinglass	W	
	Kaolin	GA	Extraction of propolis
	Perlite	GA	
	Vegetable oil	GA	

ANNEX IV: CLEANSERS, DISINFECTANTS, AND SANITISERS

Note that the following sanitisers may be used, where followed by rinse, volatilisation or other effective procedures prior to certified products coming in contact with treated surfaces. Storage of such chemicals must not allow contamination of certified products.

Cleansers, disinfectants and sanitisers should be selected with consideration of avoidance of residual contamination, rapid biodegradability, low toxicity, worker safety, and low environmental impact of their manufacture, use, and disposal. This includes avoidance of known endocrine disrupting, ozone depleting, and trihalomethane forming compounds.

ANNEX IV		CLEANSERS, DISINFECTANTS & SANITISERS
Acetic acid	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	Allowed as a disinfectant. Alcohol used as an ingredient in an organic processed product must be from an organic source.
Alcohol, isopropyl	A	
Alkali carbonates	A	
Ammonium sanitiser products	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 rinsing procedures, volatilisation or similar means.
Bleach	R	Includes calcium hypochlorite, sodium hypochlorite and chlorine dioxide, up to 10% solution. Allowed as a sanitiser on food contact surfaces if followed by rinse/volatilisation or similar means.
Calcium hypochlorite	R	Allowed as a sanitiser on food contact surfaces, followed by a rinse/volatilisation.
Chlorine dioxide	R	Allowed as a sanitiser on food contact surfaces, followed by a rinse/volatilisation.
Detergents	R	Allowed as equipment cleaners. Also includes emulsifiers, surfactants and wetting agents used as inert ingredients. Must be biodegradable, low phosphate, and may be evaluated on a case-by-case basis.
Hydrogen peroxide	A	Allowed as a sanitiser on food contact surfaces, followed by a rinse/volatilisation.
Iodine	R	Non elemental, up to 5% solution.
Lactic acid	R	Natural sources.
Lime	A	
Ozone	A	
Peracetic acid	A	Also known as "Periacetic acid".
Phosphoric acid	R	Natural sources.
Potassium hydroxide	A	
Potassium permanganate	R	Up to 1% solution.

ANNEX IV		CLEANERS, DISINFECTANTS & SANITISERS
Quat	R	See "Ammonium sanitiser products"
Soap	A	Washdown with clean water required after use.
Sodium bicarbonate	A	
Sodium borate	A	
Sodium hypochlorite	R	
Sodium hydroxide	A	
Vinegar	A	

ANNEX V: BIODYNAMIC STANDARD

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. These preparations are Yarrow 502; Chamomile 503; Stinging nettle 504; Oak bark 505; Dandelion 506; Valerian 507.
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. Off-farm manures shall go through a composting process.
7. Quality and storage of the preparations: The preparations are to be in a suitable storage container away from toxic fumes, electricity, contamination, heat and sunlight (except 501, which is stored in glass in sunlight).
8. Stirring of Biodynamic Preparations shall be organised to achieve an energetic vortex, followed by an immediate reverse action, causing a “bubbling” chaos and reverse vortex – then subsequent reverse chaos and vortex and so on for the full hour. As a guiding principle the temperature should be circa 35 degrees Celsius through this time.
9. Preparations to be applied using uncontaminated, clean and dedicated equipment.
10. Detailed record keeping of biodynamic practices to be kept and be available 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 that 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 used for biodynamic production and certification 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 two years under certified biodynamic management. Animals can be converted to biodynamic in the same fashion as outlined for conversion of livestock under Table 5b, with the addition that all livestock that are sourced from certified organic sources may be converted to biodynamic in 6 months.

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: ADDITIONAL REQUIREMENTS FOR EXPORTING TO THE EU

These additional requirements are applicable for all certified operators that have applied for certification under the EU Program. Organic products may only be exported to the EU if certified under this program.

To be eligible for a Certificate of Inspection For Import of Products From Organic Production into the EU, in addition to the main text of the *Australian Certified Organic Standard 2019*, the following additional requirements must be adhered to.

The following additional requirements override references in the main text or other annexes, on the same topic. For example, if a product is listed as allowed in the main text, but is NOT listed in this EU Annex for that specific use, then the additive is NOT allowed for use in EU-certified products.

Part property certification

1. Wherever possible, the entire property shall be managed organically; however, the property may be split into clearly separated units that may not all be managed organically, in instances referred to in 3.6 of this Standard. In these instances, different species of animals, different varieties of plants, which are visually distinguishable, shall be produced, and adequate records shall be kept to show the separation.

Processed products

2. For processed products, where the organic ingredient percentage is between 70% and 95%, reference to the organic status of the product may only be made in the ingredients panel, with clear reference to only the organic ingredients.
3. Labelling claims such as “100% organic” are not allowed.
4. Multi-agricultural ingredient items may not be sold as “In Conversion to Organic”, and the EU logo shall not be used in the case of in-conversion products.
5. Operators using the EU logo on wine shall keep recorded evidence, for a period of at least five years after they placed on the market that wine obtained from organic grapes, of the quantities of wine produced and marketed, per wine category and per year.
6. The certification body code numbers as assigned by EC 1235/2008 must be included on labels; in an easily visible, clearly legible and indelible manner; along with a lot identification mark, which allows linking the lot with corresponding certification, production and sales records.
7. Where the EU logo is used, an indication of the place where the agricultural raw materials of which the product is composed have been farmed, shall also appear in the same visual field as the logo and shall take one of the following forms, as appropriate: – “EU Agriculture”, where the agricultural raw material has been farmed in the EU, – “non-EU Agriculture”, where the agricultural raw material has been farmed in third countries, – “EU/non-EU Agriculture”, where part of the agricultural raw materials has been farmed in the EU and a part of it has been farmed in a third country. The above-mentioned indication “EU” or “non-EU” may be replaced or supplemented by a country in the case where all agricultural raw materials of which the product is composed have been farmed in that country. The “EU” or “non-EU” indication shall not appear in a colour, size and style of lettering more prominent than the sales description of the product.
8. If herbs and/or spices constitute less than 2% of the total weight of the product, they may be listed as “spices” or “herbs” without stating the percentage.
9. Any non-certified organic ingredients of agricultural origin shall be those only included in **Annex IX to Commission Regulation (EC) No 889/2008**.
10. Any food additives used in organic products shall be those only included in **Annex VIII to Commission Regulation (EC) No 889/2008**, and where such additives are marked with an asterisk in the column of the additive code number, shall be calculated as ingredients of agricultural origin (where not marked with an asterisk, such are calculated as non-agricultural origin). Where yeasts are used, these shall be considered as ingredients of agricultural origin.
11. If processing of certified products is not carried out at regular times or on a fixed day, such events must be announced to the CO in advance, with a deadline for the event occurring agreed on with the CO. Where relevant this shall be noted in the OHP.
12. Substances and techniques that reconstitute properties that are lost in the processing and storage of organic food, that correct the results of negligence in the processing of these products or that otherwise may be misleading as to the true nature of these products shall not be used.

Farm conversion

Derogation

13. The conversion period shall start at the earliest when the operator has notified their activity to the CO. In order to determine the conversion period referred to above, a period immediately preceding the date of the start of the conversion period may be taken into account. An operator may apply in writing to the certification body for retroactive recognition. The conversion period for primary production may be reduced where one of the following conditions is met:
 1. the land parcels were subject of measures defined in a programme implemented pursuant to Regulations (EC) No 1257/99, (EC) No 1698/2005, or in another official programme, provided that the measures concerned ensure that products not authorised for organic production have not been used on those parcels, or
 2. the parcels were natural or agricultural areas which were not treated with products not authorised for organic production. Note sufficient proof and records will need to be provided to demonstrate and ensure compliance for a minimum period of the last three years.

Livestock conversion

14. No more than 40% of the herd in any one year may arise from non-organic sources, and only following approval from the CO. The percentages laid down in this clause shall not apply to production units with less than 10 equine or bovine animals, or with less than five porcine, ovine or caprine animals. For these units, any renewal, as mentioned above shall be limited to a maximum of one animal per year. Males for breeding may be brought in from non-certified production units provided that the animals are subsequently reared and fed, while on the certified unit, in accordance with this Standard.
15. Incoming (uncertified) stock should be nulliparous (having never given birth) prior to entry to the farming operation, and confirmed to be disease-free. 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.
16. Production of organic and non-organic livestock and livestock products by a certified operator may only be conducted on clearly separated units, and with different species of organic and non-organic animals.
17. Parallel production, as defined by section 3.6 of the main text, is not allowed for livestock production.
18. In cases of catastrophic circumstances, the CO may authorise the renewal or reconstitution of groups of livestock, including bees, from non-organic sources, where organic are not available. Documentary evidence of such approvals must be kept.
19. Non-organic young animals being brought into an organic operation shall be managed organically from weaning, and shall be less than six months old for bovine species, 60 days for ovine and caprine, and less than 35 kg for porcine. Brought-in non-organic animals will never be certified organic for slaughter, but progeny may be certified.
20. Replacement poultry are required to be from organic sources where available. Where unavailable, non-organic chicks up to 2 days old may be brought in with written approval from the CO. Where such poultry are for meat production, the meat may only be considered organic after 10 weeks of life under organic management.

Livestock feed

21. For the EU market for In Conversion livestock, In Conversion feed stuffs may be fed up to a maximum of 60% of total diet based on the percentage of dry matter in the feed ration, where such feed is produced on the same farm unit or otherwise a maximum of 30% of the total diet based on the percentage of dry matter in the feed ration.
22. For ruminants, at least 60% of the feed ration for must come from roughage, fresh or dried fodder or silage. This may be reduced, following approval from the CO, to 50% for dairy cattle for a maximum period of three months during early lactation.
23. The allowance in section 5.1.28 for up to 5% non-organic feed, where organic is unavailable, is not generally applicable to EU certified operators. Only where organic protein sources are unavailable for pig and poultry production may 5.1.28 apply, and only until 31st December 2020. As per section 5.1.35, in exceptional circumstances (EC), particularly where animal welfare issues may be at stake, the CO may allow specific derogations to feed requirements. Such derogations shall follow formal application to the CO and will be reviewed prior to possible acceptance. In relation to the EU market, such a derogation may only be granted by the CO in catastrophic circumstances, including natural disasters such as destructive flooding, fire and prolonged and extreme drought conditions.
24. The addition of meat meal to livestock feed is prohibited.

25. Synthetic amino acid isolates are prohibited.
26. Roughage, fresh or dried fodder, or silage shall be added to the daily ration for pigs and poultry.
27. Where non-organic molasses, herbs or spices are added to rations, this shall be only where organic forms are unavailable, and such products shall be produced and prepared without chemical solvents, and limited to 1% of the feed ration on a dry matter, annualised basis.
28. Feed materials and additives must be limited to those listed in Annex V and VI of Regulation (EC) 889/2008.

Livestock welfare

29. Personnel keeping animals shall possess the necessary basic knowledge and skills as regards the health and the welfare needs of the animals.
30. Animal modifications such as attaching elastic bands to the tails of sheep, tail docking, cutting of teeth, trimming of beaks and dehorning shall not be carried out routinely. Approval must be sought from the CO for such activities, and approval will only be granted if the activity is for reasons of safety; health and welfare; or hygiene of the livestock.
31. Physical castration is allowed in order to maintain the quality of products and traditional production practices. Where such activities are conducted, adequate anaesthesia and/or analgesia shall be applied.
32. All veterinary medicine treatments applied to stock shall be declared to the CO prior to the marketing of the livestock as organic. Details of the treatment, date, reason for treatment etc. are to be declared, and records of the treatment kept in a manner that allows identification of the treated stock.
33. The use of electrical stimulation, or allopathic tranquilisers prior to, or during transport of livestock is prohibited.
34. For poultry, minimum age at slaughter shall be 81 days; 150 days for capons; 49 days for Peking ducks; 70 days for female Muscovy ducks; 84 days for male Muscovy ducks; 92 days for Mallard ducks; 94 days for guineafowl; 140 days for turkeys and roasting geese.
35. Phytotherapeutic and homeopathic products, trace elements and products listed in section 1 of Annex V and in section 3 of Annex VI of Regulation (EC) 889/2008 shall be used in preference to chemically synthesised allopathic veterinary treatment or antibiotics, provided that their therapeutic effect is effective for the species of animal, and the condition for which the treatment is intended.

Livestock grazing / ranging areas

36. Stocking rates for all livestock shall be such that no more than 170kg of nitrogen per year and hectare of agricultural area is generated.
37. Stocking rates for ducks shall not exceed 2000 birds per hectare; turkeys 800 birds per hectare; geese 600 birds per hectare; and guinea fowl 2500 birds per hectare.

Livestock housing

38. The size of the livestock group must depend on their stage of development, and the behavioural needs of the species concerned to ensure high levels of both animal welfare and best environmental management outcomes are achieved and maintained.
39. Housing, pens, equipment and utensils shall be properly cleaned and disinfected to prevent cross-infection and the build-up of disease carrying organisms. Wastes shall be removed to minimise smell and to avoid attracting insects or rodents. Poultry housing shall be emptied of livestock between each batch of poultry reared, for a minimum period of one week. The buildings shall be cleaned and disinfected during this time. The operator shall keep documentary evidence of these activities, and the rest period. These requirements shall not apply where poultry is not reared in batches, is not kept in runs, and is free to roam, throughout the day. Storage facilities for livestock manure must be of a capacity to preclude the pollution of water by direct discharge or by run-off and infiltration into the soil. Storage capacity shall exceed the requirements for storage of volumes where there may be extended periods that preclude application of such fertiliser onto lands, where this is prohibited in accordance with good agricultural practices, or where the production facility is within a designated nitrate vulnerable zone.
40. Poultry must have exit/entry pop-holes of a size adequate for the birds, and these pop-holes must have a combined length of at least 4 m per 100 m² area of the house available to the birds. Each poultry house or group must not contain more than: 4800 chickens; 3000 laying hens; 5200 guinea fowl; 4000 female Muscovy or Peking ducks or 3200 male Muscovy or Peking ducks or other ducks; 2500 capons, geese or turkeys. The total usable area of poultry houses for meat production on any single production unit must not exceed 1600 m².

Table VI1. Minimum surface areas, indoor and outdoor, and other characteristics of housing for different species and classes of animals.

Species / class	Weight / age	Indoor area (m ² /head)	Outdoor area (m ² /head)
Breeding and fattening cattle	< 100 kg	1.5	1.1
	< 200 kg	2.5	1.9
	< 350 kg	4	3
	> 350 kg	5 with a minimum of 1 m ² /100 kg	3.7 with a minimum of 0.75 m ² /100 kg
Dairy cows	All	6	4.5
Bulls (breeding)		10	30
Sheep and goats		1.5	2.5
Lambs / kids		0.35	0.5
Farrowing sows with piglets up to 40 days		7.5 sow	2.5
Fattening pigs	< 50 kg	0.8	0.6
	< 85 kg	1.1	0.8
	< 110 kg	1.3	1
	> 110 kg	1.5	1.2
Piglets	> 40 days, < 30 kg	0.6	0.4
Pigs – female		2.5	1.9
Pigs – male		6, or if pens are used for joining: 10	8.0

Table VI2. Minimum surface areas, indoor and outdoor, for poultry.

Class	Indoors area (net area available to animals)			Outdoors area (m ² of area available in rotation/head)
	Animals/m ²	Perch/animal (cm)	Nest	
Laying hens	6	18	7 laying hens per nest or in case of common nest 120 cm ² /bird	4, provided that the limit of 170 kg of N/ha/year is not exceeded
Fattening poultry in fixed housing	10 with a maximum of 21 kg/m ²	20 (for guinea fowl only)		4 broilers and guinea fowl, 4,5 ducks, 10 turkey, 15 geese. In all the species mentioned above the limit of 170 kg of N/ha/year is not exceeded
Fattening poultry in mobile housing	16 ⁽¹⁾ in mobile poultry houses with a maximum of 30 kg/m ²			2.5, provided that the limit of 170 kg of N/ha/year is not exceeded

(1) Only in the case of mobile houses not exceeding 150 m² floor space.

Beekeeping

41. All measures taken to maintain organic integrity of organic honey and bee products shall be recorded, including but not limited to: removal of supers; extraction; storage; and packing.
42. Whenever veterinary medicinal products are to be used, full details of the product, together with full details of the diagnosis, the treatment approach, and the legal withdrawal period shall be recorded and declared to the CO prior to the sale of resulting products as organic.
43. Beeswax for new comb foundations shall come from organic production units.
44. For the renovation of apiaries, 10% per year of the queen bees and swarms may be replaced by non-organic queen bees and swarms in the organic production unit provided that the queen bees and swarms are placed in hives with combs or comb foundations coming from organic production units.
45. For the purposes of protecting frames, hives and combs, in particular from pests, only rodenticides (to be used only in traps) and appropriate products listed in Annex II of Regulation (EC) 889/2008 are permitted.
46. For the purpose of cleaning and disinfection of frames, hives and combs, sodium hydroxide may be used.

Wine

47. Winemaking practices and additives must comply with Regulation (EC) 606/2009 and (EC) 203/2012.
48. Techniques such as partial concentration by cooling, and partial dealcoholisation of wine are not permitted.
49. Elimination or reduction of sulphur dioxide through physical processes is not permitted.
50. Tartaric stabilisation of wine through electrodialysis, or treatment through cation exchangers, is not permitted.
51. Heat treatments are permitted but shall not exceed 70 degrees Celsius.
52. Centrifuging and filtration, with or without inert filtration aids, are permitted; however, filters shall not have pores smaller than 0.2 micrometres.
53. Sulphur dioxide shall not exceed the provisions in Table VI3, except in instances of exceptional climatic conditions that deteriorate the sanitary status of organic grapes in a specific geographical area because of severe bacterial or fungal attacks, which obliges the winemaker to use more sulphur dioxide than in previous years in order to obtain a comparable final product. In such exceptional instances, prior approval from the CO is required, and the level of sulphur dioxide shall not exceed the EU conventional allowances for the relevant wine.

Table VI3. Allowable treatments for winemaking.

Product	Method of treatment ⁽¹⁾	Specific conditions or restrictions
-Air -Gaseous oxygen	Use for aeration or oxygenation	
-Perlite -Cellulose -Diatomaceous earth	Centrifuging and filtration	Use only as an inert filtering agent
-Nitrogen -Carbon dioxide -Argon	Use in order to create an inert atmosphere and to handle the product shielded from the air	
-Yeasts	Use	Derived from organic sources, if available
-Di-ammonium phosphate -Thiamine hydrochloride	Use	
-Sulphur dioxide -Potassium bisulphite -Potassium metabisulphite	Use	(a) The maximum sulphur dioxide content shall not exceed 100 mg/L for red wines and with a residual sugar level lower than 2 g/L; (b) The maximum sulphur dioxide content shall not exceed 150 mg/L for white and rosé wines and with a residual sugar level lower than 2 g/L; (c) For all other wines, the maximum sulphur dioxide content shall be reduced by 30 mg/L.
Charcoal	Use	
-Edible gelatin -Plant proteins from wheat or peas -Isinglass -Egg white albumin -Tannins	Clarification	Organic if available
-Casein -Potassium caseinate -Silicon dioxide -Bentonite -Pectolytic enzymes	Clarification	
-Lactic acid -L(+)-Tartaric acid	Use for acidification purposes	
-L(+)-Tartaric acid -Calcium carbonate -Neutral potassium tartrate – potassium bicarbonate	Use for de-acidification purposes	
-Aleppo pine resin	Addition	
-Lactic bacteria	Use	
-L-Ascorbic acid	Addition	
-Nitrogen	Use for bubbling	
-Carbon dioxide	Addition	
-Citric acid	Addition for wine stabilisation purposes	
-Tannins	Addition	Organic if available
-Meta-tartaric acid	Addition	
-Acacia gum / gum arabic	Use	Organic if available
-Potassium bitartrate	Use	
-Cupric citrate	Use	
-Oak chips	Use	
-Potassium alginate	Use	
-Calcium sulphate	Use	Only for “vino generoso” or “vino generoso de licor”

(1) Method of treatment as per Annex III point A(2)(b) of EC Regulation 606/2009

Transport

54. The operator shall ensure that where certified products may be transported to other operations, including wholesalers and retailers, appropriate packaging, containers or vehicles shall be managed and/or enclosed in such a manner that substitution of the content cannot be achieved without manipulation or damage of a seal or other equivalent means. The closing of packaging, containers or vehicles is not required where transportation is direct between a producer and another operator who are both subject to an equivalent certification system and the products are accompanied by a document giving the information outlined in 3.5.1, and the COs of both the expediting and the receiving operators have been informed of such transport operations and have agreed thereto. Such agreement might be provided for one or more transport operation(s).

Equipment/contamination

55. Storage on the certified operation, of input products other than those permitted by Article 6(1)(b) and (c) and Article 6(3)(a) of the EU Regulation, is prohibited.

Mushroom production

56. Substrates used for the production of mushrooms shall consist of composted manure, and/or products of organic agriculture, or other non-chemically treated natural products such as peat, wood, mineral products listed in Annex I or Regulation (EC) 889/2008, water and soil.
57. At least 75% of the source manure must come from certified organic sources, with no more than 25% of all inputs coming from non-certified organic sources.

Crop inputs, processing aids and additives.

58. When organic seed and planting materials are not available in sufficient quantity or quality for the required variety or equivalent varieties, in-conversion materials may be used. When none of these are available, conventional materials may be used provided that they have not been treated with post-harvest pesticides not otherwise permitted by this Standard. Approval for such use of non-organic seeds or planting materials is required as per 4.2.11.
59. CO approval for non-organic propagation materials as per 4.2.11 must be obtained prior to use of the propagation material, and be obtained by individual operators, for each growing season. Requests for approval must include details of the quantities of seed to be used.
60. In the case of perennials, seeds and vegetative plant material used for propagation must be from a parent plant that has been under organic management for two growing seasons.
61. Trace elements only as listed in Regulation EC 2003/2003 Annex I Part E are allowed.
62. Timbers treated with prohibited materials must not be used on organic land for fencing, trellises or similar structures.
63. Ammonium sanitiser products are prohibited for use on equipment used for processing or handling organic produce or products.
64. The use of ethylene is only allowed for degreening bananas, kiwis and kakis; degreening of citrus fruit only as part of a strategy for the prevention of fruit fly damage in citrus; flower induction of pineapple; sprouting inhibition in potatoes and onions.
65. Fruit wax, carnauba or wood-extracted wax not allowed for product treatment.
66. Petroleum distillates other than paraffins specifically listed in EU regulation 540/2011 are prohibited for crop application.
67. Inputs for crop use must be limited to those listed in Annex I and II of Regulation (EC) 889/2008, including subsequent amendments.
68. Inputs and additives for processed products must be limited to those listed in Annex VIII of Regulation (EC) 889/2008, including subsequent amendments.
69. Minerals (trace elements included), vitamins, amino acids, and micronutrients may be added to food products, provided that:
- (i) their use in food for normal consumption is directly legally required for legal sale of the food type in the EU.
 - (ii) for baby food or infant and follow on formulae, where such inputs are legally required by EU regulations 609/2013, commission directive 2006/125EC, and/or 2006/141/EC.
70. Where pest control products are used in traps or dispensers, (other than pheromone dispensers), the traps and/or dispensers shall prevent the substances from being released into the environment and prevent contact between the substances and the crops being cultivated. The traps shall be collected after use and disposed of safely.

Wild harvest

71. The collection of wild plants and parts thereof, growing naturally in natural areas, forests and agricultural areas, can be considered organic production provided that such areas have not, for a period of at least three years before the collection, received any non-allowed treatments or inputs.

ANNEX VII: ADDITIONAL REQUIREMENTS FOR IFOAM CERTIFICATION

These additional requirements are applicable for all certified operators that have applied for certification under the IFOAM Program. Organic products may only be sold with reference to IFOAM if certified under this program.

To be eligible for an IFOAM certificate, in addition to the main text of the *Australian Certified Organic Standard 2019*, the following requirements must be adhered to:

Conversion

1. The start of the conversion period shall be the date that an application has been accepted by the CO. Only with written approval from the CO, the conversion period may be calculated retroactive to the application date only where evidence of full compliance with the standard for periods referred to in 3.1.9 and 3.1.10, and below.
2. 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.
3. The removal of soil from the farm is prohibited, other than incidental removal when harvesting crops.
4. The production of terrestrial plants must be in the soil, other than herbs, flowers or ornamental plants in pots sold to the final consumer.
5. Wherever possible, the entire property shall be managed organically; however, the property may be split into clearly separated units, which may not all be managed organically, in instances referred to in 3.6 of this Standard. In these instances, production and record-keeping must be undertaken in a way that allows clear and continuous and verifiable separation of all operations and products claimed as organic. Organic and non-organic units in parallel production must be physically, financially and operationally separated.
6. Clearing or destruction of areas designated as being of high conservation value is prohibited. Clearing such land prior to application for certification is also not allowed. Such cleared land may not be granted certification if clearing occurred less than five years prior to application for certification.

Livestock

7. Incoming (uncertified) stock should be nulliparous (having never given birth) prior to entry to the farming operation, and confirmed to be disease-free.
8. Breeding stock may be brought in from conventional farms to a yearly maximum of 10% of the adult animals of the same species on the farm.
9. In cases of extreme climatic conditions, operators may only feed a limited percentage of non-organic feed under specific conditions for a limited time in the following cases: Organic feed is of inadequate quantity or quality; or areas where organic agriculture is in early stages of development. In no case may the percentage of non-organic feed exceed 10% dry matter per ruminant and 15% dry matter per non-ruminant calculated on an annual basis.
10. Offspring may be considered organic only if their mother has been organically managed throughout the pregnancy.
11. Milk may be considered organic only if the dairy animal has been organically managed throughout the pregnancy preceding lactation.
12. Where approval is granted by the CO for the treatment of organic livestock with synthetic allopathic veterinary products (where natural alternatives are unlikely to be effective, under veterinary advice, and with twice the standard withholding periods or 14 days, whichever is longer), this exception is granted for a maximum of three courses of remedial treatments with chemically synthesised allopathic veterinary medicinal products or antibiotics within 12 months, or one course of treatment if the productive life cycle of the animal is less than one year.
13. The use of electric prods or similar instruments is prohibited.
14. The use of allopathic tranquilisers or stimulants prior to, or during transport is prohibited.
15. Synthetic amino acid isolates are prohibited.
16. Animals may be fed vitamins, trace elements and supplements from natural sources. Where these are not available in sufficient quantity or quality, and only with written approval from the CO, synthetic vitamins, minerals and supplements may be used.

17. Fodder preservatives such as the following may be used:
 - a. bacteria, fungi and enzymes;
 - b. natural products of food industry;
 - c. plant-based products;
 - d. vitamins and minerals (subject to above).
18. Operators shall manage pests and diseases in livestock housing using non-chemical means in the first instance, and shall use the following methods according to these priorities:
 - a. preventative methods such as disruption, elimination of habitat and access to facilities;
 - b. mechanical, physical and biological methods;
 - c. substances (other than pesticides) used in traps;
 - d. substances listed in *The IFOAM Standard*, Appendix 5.
19. Operators shall give preference to natural medicines and treatments over chemically synthesised treatments.
20. Those responsible for transportation and slaughtering of livestock shall avoid contact (sight, sound or smell) of each live animal with dead animals or animals in the killing process.

Processed products

21. Labelling claims such as “100% organic” are not allowed.
22. 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.
23. For the production of organic microorganisms for processed food and feed, only organically produced substrate shall be used.
24. If herb and spices constitute less than 2% of the total weight of the product, they may be listed as “spices” or “herbs” without stating the percentage.
25. All additives shall be listed with their full name.
26. When non-organic products are prepared or stored in the preparation unit, the operator shall inform the control body.
27. The handler or processor shall take all necessary measures to prevent organic products from being contaminated by pollutants and contaminants, including the cleaning, decontamination, or, if necessary, disinfection of facilities and equipment.
28. Equipment surfaces and utensils that might come into contact with organic products shall be free of nanomaterials, unless there is verified absence of contamination risk.
29. Substances and techniques shall not be used that:
 - a. reconstitute properties lost by the processing and storage of organic products;
 - b. conceal negligent processing;
 - c. may otherwise be misleading as to the true nature of these products.

Social policy

Guidance note: The below requirements are to be met, regardless of the employment arrangement.

30. Those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties involved.
31. Production that violates human rights and social justice requirements in this chapter cannot be declared organic.
32. Indigenous land rights, and basic human rights for employees must be upheld at all times.
33. Use of forced labour or pressure such as retaining part of the workers’ wages, property or documents is prohibited.
34. Operators shall not interfere with the right of their employees, suppliers, farmers and contractors to organise and to bargain collectively, free from interference, intimidation and retaliation.
35. Operators shall provide their employees and contractors equal opportunity and treatment, and shall not act in a discriminatory way.
36. Operators shall have a disciplinary procedure with a system of warning before any suspension or dismissal. Workers dismissed shall be given full details of reasons for dismissal.
37. Employees shall be granted the right to take at least one day off after six consecutive days of work. Operators shall not require workers to work more than the contracted hours and the national or regional sectorial legislation. Overtime shall be remunerated in the form of supplementary payments or time off in lieu.
38. Operators shall never require an employee to work who is ill or requiring medical attention and shall not sanction an employee for the sole fact of missing work due to illness.

39. Operators shall not use child labour, unless this work is on their family's farm or business or a neighbouring farm provided that:
 - a. such work is not dangerous or hazardous to their health and safety;
 - b. it does not jeopardise the child's educational, moral, social, mental, spiritual and physical development;
 - c. children are supervised by adults or have authorisation from a legal guardian.
40. Employees must be paid a fair and legal level of pay.
41. Operators shall provide written terms and conditions of employment to both permanent and temporary employees, in a language and presentation understandable to the worker. The terms and conditions must specify at least: wages; frequency and method of payment; location, type and hours of work; recognition of workers' freedom of association; disciplinary procedure; health and safety procedure; eligibility and terms of overtime, holiday pay, sickness benefit and other benefits such as maternity and paternity leave; and worker's right to terminate employment.

Exceptions to point 41 above may be granted by the certification office only in cases where:

 - the operator is unable to write, or
 - workers are hired for periods of less than 6 days, or
 - emergency labour is needed to address unpredictable problems
 - oral mutual agreements on the terms and conditions of employment are sufficient.
42. Operators shall ensure that the workers understand the terms of their employment contract.
43. Operators shall respect the terms of the contract in good faith, including timely payment of wages.
44. Operators shall ensure adequate access to potable water.
45. Operators shall provide appropriate safety training and equipment to protect workers from noise, dust, sunlight and exposure to chemicals or other hazards in all production and processing operations.
46. Operators shall provide residential employees with habitable housing and access to potable water; to sanitary and cooking facilities and to basic medical care. If families reside on the operation, the operator shall also enable access to basic medical care for family members and to school for children.
47. Operators shall comply with minimum national social requirements in the countries of operation.
48. Operators with more than 10 employees must have a written employment policy and maintain records to demonstrate full compliance with the requirements of this section. Workers will have access to their own files.

Other

49. Ethylene use is only allowed for degreening of citrus.
50. Where lighting is used in protected cropping areas such as greenhouses or poly-tunnels, it must only be used for plant propagation, and as a complement to natural light, and plants should not receive any more than 16 hours of light per day.
51. All multiplication practices on the farm, except meristem culture, shall be under organic management.
52. Organic plant breeders shall disclose the applied breeding techniques. Organic plant breeders shall make the information about the methods that were used to develop an organic variety available for the public (at the) latest from the beginning of marketing of the seeds.
53. Land preparation by burning vegetation or crop residues is only allowed in exceptional cases, for reasons such as disease control or to stimulate seed germination, and only with approval from the CO.
54. Multicomponent products, live or unprocessed (such as vegetable boxes) may be sold or marketed as organic only if all the components are organic.

Yeast production

55. For the production of organic yeast, only organically produced substrates shall be used.
56. Cultures that are prepared or multiplied in house shall comply with the requirements for organic production.

Mushroom production

57. Substrates used for the production of mushrooms shall consist of products of organic agriculture, or other non-chemically treated natural products such as peat, wood, mineral products or soil.

Crop inputs, post-harvest inputs

58. Inputs for crop use must be limited to those listed in *The IFOAM Standard*, Appendix 2: Fertilizers and Soil Conditioners; and Appendix 3: Crop Protectants and Growth Regulators.

59. When organic seed and planting materials are not available in sufficient quantity or quality for the required variety or equivalent varieties, in-conversion materials may be used. When none of these are available, conventional materials may be used provided that they have not been treated with post-harvest pesticides not otherwise permitted by this Standard. Approval for such use of non-organic seeds or planting materials is required as per 4.2.11.
60. In the case of perennials, seeds and vegetative plant material used for propagation must be from a parent plant that has been under organic management for two growing seasons, or 18 months, whichever is longer.

ANNEX VIII: REQUIREMENTS FOR COSMOS CERTIFICATION

Certification of cosmetic products is to COSMOS Standard. The COSMOS Standard and technical guides are available from the links below:

COSMOS-standard:

https://cosmosstandard.files.wordpress.com/2018/12/COSMOS-standard-V3.0-including-editorial-changes-0101_2019.pdf

COSMOS Labelling guide:

<https://cosmosstandard.files.wordpress.com/2018/08/cosmos-standard-labelling-guide-v3-0.pdf>

COSMOS Technical guide:

<https://cosmosstandard.files.wordpress.com/2018/08/cosmos-standard-technical-guide-v3-01.pdf>

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