

CONTENTS

Organic Certification with AsureQuality	5
Section 1 Introduction and Scope	7
Section 2 Glossary of Terms	10
Section 3 Labelling and Claims	13
Section 4 Preparation and Production Standard for Plants and Plant Products (includes mushrooms)	17
Section 5 Preparation and Production Standard for Livestock (includes bees, poultry, dairy and aquaculture)	25
Section 6 Processing and Handling Standard (includes textiles)	49
Section 7 Imported Product and/or Ingredient	53
Section 8 Social Justice	55
Section 9 Minimum Inspection Requirements and Precautionary Measures under the Inspection or Certification System	57
Section 10 Restricted Permitted Substances for the Production of Organic Foods	63
Table 1 Substances for Use in Soil Fertilising and Conditioning	65
Table 2 Substances for Plant Pest and Disease Control	68
Table 3 Ingredients of Non-Agricultural Origin Referred to in Section 3 of This Standard	70
Table 4 Processing Aids Which May Be Used for the Preparation of Products of Agricultural Origin Referred to in Section 3 of This Standard	72
Table 5 Feed Additives, Certain Substances Used in Animal Nutrition and Processing Aids Used in Feedstuffs	73
Table 6 Products Authorised for Cleaning and Disinfection of Livestock Buildings and Installations	75
Table 7 Feed Materials	76
Table 8 Maximum Number of Animals Per Hectare	78
Table 9 Minimum Surface Areas Indoors/Outdoors	79
Supplementary Requirements for Organic Operators Producing for the USA Market	81

ORGANIC CERTIFICATION WITH ASUREQUALITY

Organic certification assures customers of much more than food that is just free of synthetic pesticides and fertilisers. It is a “whole system” approach to farming and food production that promotes and enhances biodiversity, fosters sustainable growing practices and ensures the ethical treatment of livestock.

THE ASUREQUALITY ORGANIC STANDARD

The AsureQuality Standard covers organic primary production, organic processing and labelling. The standard provides a minimum requirement to be complied with to gain Organic Certification for the production of, labelling of, and claims for, organically produced foods.

Accredited by the world’s leading organic organisation, IFOAM (International Federation Organic Agricultural Movement), the AsureQuality Organic Standard can allow market access to the USA, European Union, Australia, South East Asia, the UK and Japan. The standard is based on the international Codex Alinorm 99/22, the European Union Regulations and the Australian National Standard.

AsureQuality provides expert audit, inspection, verification and certification services to organic producers, processors and retailers in the dairy, meat, seafood, horticulture, wine and arable sectors.

AsureQuality works with the New Zealand Food Safety Authority to provide the required third party assurance where Government to Government official assurance is required. We are registered as a Registered Foreign Certification Organisation by Japan Ministry of Agriculture Fisheries and Food (MAFF). AsureQuality certify customers to the EU and the USDA standard.

THE ASUREQUALITY ORGANIC MARK

As a processor, packer and/or marketer certified to the AsureQuality Organic Standard you will be entitled to display the AsureQuality Organic Mark and will be given a unique customer number that guarantees traceability and accountability throughout the food supply chain. However anyone wishing to use the organic mark will need to seek AsureQuality approval prior to use to ensure that programme and logo use requirements are complied with. This includes use of the logo in advertising, on printed material, on websites, etc.

The AsureQuality logo is available in a range of formats, both in colour and black and white. All the information regarding the use of the logo is in the licence agreement that is completed following a successful organic audit.



THE ORGANIC CERTIFICATION PROCESS

The time taken to become fully organic depends on the nature of your business. Processors can be certified immediately subject to completing the following steps, however it normally takes two years for livestock, two years for annual horticulture crops and three years for perennials.

To begin the process you will need to:

1. Complete and return the Application to Organic Certification.
2. Complete and return the management plan applicable to your business. This requires detailed information on how you operate and documents the audit trail of your business including both inputs and outputs.
3. Have an on-site assessment/audit undertaken by an Auditor to ensure that every aspect of your operation complies with the AsureQuality Organic Standard.

Following the on-site audit, the auditor will submit a formal report on the findings. This will include (but may not be confined to) any non-conformance against the AsureQuality Organic Standard that needs to be addressed. The organic auditor will agree with you on how to resolve any non-conformances and set the closing due date.

When all non-conformances are closed out, an organic certification status certificate will be issued covering the scope of your operation. Once a signed licence agreement has been completed, the AsureQuality organic logo can be used in approved marketing materials.

The initial certification process will take approximately 3 months.

MAINTAINING YOUR ORGANIC STATUS

AsureQuality will review that certification should remain valid through a programme of re-assessment audits. Re-assessment audits will take place at least annually. You will receive a reminder 3 months prior to your audit being due and a request for you to submit your management plan if changes have occurred.

SIGNS AND STICKERS

We have full “Organic” status signs and stickers and “In Conversion” signs available to help you market your organic status. The signs are ideal for putting on your gates and boundaries, for taking to trade shows or putting in your organic store. Your first full, or in-conversion organic sign from AsureQuality is free. Every step of the organic production pathway must be certified organic for this material to be used.

MULTI-RESIDUE SOIL TESTING

Soil multi-residue tests are required to be taken for initial primary producer organic applicants who are applying for organic certification as part of the NZ Food Safety Authority Organics Official Assurance Programme (OOAP) to enable export market access. AsureQuality laboratories carries out a wide range of residue analyses for the food and beverage, environmental and agricultural industries. We provide full matrix services for pesticides, poisons and veterinary drugs.

FURTHER INFORMATION

AsureQuality maintain a comprehensive organic certification website at www.organiccertification.co.nz. The website provides access to a wealth of information including a copy of the AsureQuality Organics Standard, downloadable Application forms, residue laboratory submission forms, a complete list of AsureQuality organic registrants and input suppliers, frequently asked questions and answers, as well as links to various contacts and organisations within the organics industry.

1. INTRODUCTION AND SCOPE

1.1 INTRODUCTION

This Standard has been prepared for the purpose of providing minimum requirements to be complied with to gain certification for the production of, and the labelling and claims for, organically produced foods.

The aims of this Standard are:

- To protect consumers against deception and fraud in the market place and against unsubstantiated product claims
- To protect producers of organic produce against misrepresentation of other agricultural produce as being organic
- To ensure that all stages of production, preparation, storage, transport and marketing are subject to inspection and comply with this Standard

This Standard sets out the principles of organic production at farm, preparation, storage, transport, labelling and marketing stages, and provides an indication of accepted permitted inputs for soil fertilizing and conditioning, plant pest and disease control, food additives and processing aids.

Organic agriculture is accomplished by using, where possible, cultural, biological and mechanical materials and methods, as opposed to using synthetic materials, to fulfil any specific function within the system.

An organic production system is designed to:

- Enhance biological diversity within the whole system
- Increase soil biological activity
- Maintain long-term soil fertility
- Recycle wastes of plant and animal origin in order to return nutrients to the land, thus minimising the use of non-renewable resources
- Rely on renewable resources in locally organised agricultural systems
- Promote the healthy use of soil, water and air as well as minimise all forms of pollution thereto that may result from agricultural practices
- Handle agricultural products with emphasis on careful processing methods in order to maintain the organic integrity and vital qualities of the product at all stages
- Become established on any existing farm through a period of conversion, the appropriate length of which is determined by site-specific factors such as the history of the land and type of crops and livestock to be produced

Organic agricultural practices and this Standard cannot ensure that products are completely free of residues, due to general environmental pollution. However, the practices permitted within this Standard ensure the lowest possible risk of residues at the lowest possible levels.

Continued certification of all producers and operators, whether they are at the production, processing, handling, transport, storage or sale points of the chain, is contingent on accurate records of the enterprises concerned.

Recognising that organic production systems continue to evolve and that organic principles and Standards will continue to be developed, these Standards will be reviewed on a two yearly basis by AsureQuality, all stakeholders and/or interested parties will be included in any review. Control of this Standard will be in accordance with AsureQuality procedures. Implementation date will be the date of issue.

1.2 SCOPE

- 1.2.1 This Standard applies to the following products, which carry, or are intended to carry, descriptive labelling referring to organic production methods:
- a) Unprocessed plants and animals and plant products
 - b) Processed product derived mainly from (a) above
- 1.2.2 A product will be regarded as bearing indications referring to organic production methods where, in the labelling or claims, including advertising material or commercial documents, the product or its ingredients is described by the terms:
- “organic”, “biodynamic”, “biological”, “ecological” or words of similar intent.
- 1.2.3 Paragraph 1.2.2 does not apply where these terms clearly have no connection with the method of production.
- 1.2.4 All materials and/or the products produced from genetically engineered/modified organisms (GEO/ GMO) are not compatible with the principles of organic production (either the growing, manufacturing or processing and the use of ingredients, additives and processing aids) and therefore are not accepted under this Standard. Inputs, processing aids and ingredients shall be traced back one step in the biological chain to the direct source organism from which they are produced to verify that they are not derived from GMOs.
- 1.2.5 Requirements outlined in the AsureQuality Standard are complementary and additional to other health, social, agricultural or food regulatory requirements within New Zealand.
- 1.2.6 Social justice and social rights are an integral part of organic agriculture and processing. Refer to Section 8 for Standards regarding Social Justice.
- Operators shall have a policy on social justice
 - Where production is based on violation of basic human rights and clear cases of social injustice, that product cannot be declared as organic
 - Operators are not allowed to use forced or involuntary labour
 - Employees and contractors of organic operations should have the freedom to associate, the right to organise and the right to bargain collectively
 - Operators shall provide their employees and contractors equal opportunity and treatments and shall not act in a discriminatory way
 - Children employed by organic operators shall be provided with educational opportunities

1.3 DESCRIPTION

Foods should only refer to organic production methods if they come from an organic production system that employs management practices which seek to nurture those ecosystems that achieve sustainable productivity and provide weed, pest and disease control, through a diverse mix of mutually dependent life forms, recycling plant and animal residues, crop selection and rotation, water management, tillage and cultivation. Soil fertility is maintained and enhanced by a system which optimises soil biological activity and the physical and mineral nature of the soil as the means to provide a balanced nutrient supply for plant and animal life as well as to conserve soil resources. Production should be sustainable, with the recycling of plant nutrients an essential part of the fertilizing strategy. Pest and disease management is attained by means of encouraging a balanced host/predator relationship, the augmentation of beneficial insect populations, biological and cultural control and mechanical removal of pests and affected plant parts.

2. GLOSSARY OF TERMS

For the purpose this Standard:

Agricultural product/product of agricultural origin means any product or commodity, raw or processed, that is marketed for human consumption (excluding water, salt and additives) or animal feed.

Audit is a systematic and functionally independent examination to determine whether activities and related results comply with planned objectives.

Certification is the procedure by which written or equivalent assurance is given that foods or food control systems conform to requirements.

Certification body means a body which is responsible for verifying that a product sold or labelled as “organic” is produced, prepared, handled and imported according to this Standard.

Competent authority means the official government agency having jurisdiction.

Direct source organisms is 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.

Genetically engineered/modified organisms. The following provisional definition is provided for genetically/modified organisms: Genetically engineered/modified organisms, and products thereof, are produced through techniques in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination.

Techniques of genetic engineering/modification include, but are not limited to: recombinant DNA, cell fusion, micro and macro injection, encapsulation, gene deletion and doubling. Genetically engineered organisms will not include organisms resulting from techniques such as conjugation, transduction and hybridisation.

Homeopathic veterinary medicinal products means a veterinary medicinal product prepared by a process of solution, extraction or titration of an active ingredient followed by strict regimented serial dilution

(Must be in compliance with the Agricultural Compounds and Veterinary Medicines Act 1997.)

Ingredient means any substance, including a food additive, used in the manufacture or preparation of a food and present in the final product although possibly in a modified form.

Inspection is the examination of food or systems for control of food, raw materials, processing and distribution including in-process and finished product testing, in order to verify that they conform to requirements. For organic food, inspection includes the examination of the production and processing system.

Labelling means any written, printed or graphic matter that is present on the label, accompanies the food, or is displayed near the food, including that for the purpose of promoting its sale or disposal.

Marketing means holding for sale or displaying for sale, offering for sale, selling, delivering or placing on the market in any other form.

Official accreditation is the procedure by which a government agency having jurisdiction formally recognises the competence of an inspection and/or certification body to provide inspection and certification services. For organic production the competent authority may delegate the accreditation function to a private body.

Officially recognised inspection systems/officially recognised certification systems are systems, which have been formally approved or recognised by a government agency having jurisdiction.

Operator means any person who produces, prepares or imports, with a view to the subsequent marketing thereof, products as referred to in Section 1.1, or who markets such products.

Organic is a labelling term that denotes products that have been produced in accordance with organic production Standards.

Plant protection product means any substance intended for preventing, destroying, attracting, repelling, or controlling any pest or disease including unwanted species of plants or animals during the production, storage, transport, distribution and processing of food, agricultural commodities or animal feeds.

Preparation means the operations of slaughtering, processing, preserving and packaging of agricultural products and also alterations made to the labelling concerning the presentation of the organic production method.

Production means the operations undertaken to supply agricultural products in the state in which they occur on the farm, including initial packaging and labelling of the product.

Subcontracted Operator is a natural or legal person or business entity that performs services on behalf of an operator.

3. LABELLING AND CLAIMS

3.1 LABELLING AND ADVERTISING

- 3.1.1 The labelling and advertising of a product specified in Section 1.2, paragraph 1.2.1 (a) and Section 4.4.1 may refer to organic production methods only where:
- Such labelling and advertising shows clearly that it relates to a method of agricultural production, or is imported under the arrangements laid down in Section 7
 - The product was produced in accordance with the requirements of Section 4, 5 and 6 or imported under arrangements laid down in Section 7
 - The product was produced, imported or exported by an operator who was subject to an inspection system as set out in Section 7 or Section 9 as appropriate
 - The labelling refers to the person or company legally responsible for the most recent production or processing of the product and the certification body
- 3.1.2 The labelling and advertising of a product specified in Section 1.2, paragraph 1.2.1(b) may refer to organic production methods only where all of the following are met:
- Such indications show clearly that they relate to a method of agricultural production and are linked with the name of the agricultural produce in question as obtained on the farm
 - All ingredients of agricultural origin of the product are, or are derived from, products obtained in accordance with the requirements of Sections 4, 5 and 9 or imported under the arrangements laid down in Section 7
 - Only substances listed in Section 10 were used during the production phase
 - The same ingredient in a single product was not derived from an organic source and from a source not complying with this Standard
 - Only those substances listed in Section 10, Tables 3, 4 and 5 may be used as ingredients of non-agricultural origin
 - The ingredients and their relative levels appear in descending order (mass/mass) in the list of ingredients
 - The ingredients appear in the same colour and with an identical style and size of lettering as the other ingredients
 - The product or any of its ingredients has not been subjected to treatments involving the use of ionizing radiation or substances not listed in Section 10
 - The product was produced by an operator who is subject to the regular inspection system as set out in Section 9
- 3.1.3 Organically derived ingredients must be used if available. However, notwithstanding paragraph 3.2, ingredients not satisfying the requirements may be used in the preparation of certain products referred to in Section 1.2, paragraph 1.2.1 (b) where such ingredients:
- Are of agricultural origin and cannot be sourced in sufficient quantities in accordance with the requirements of Sections 4, 5, 6 and 9 or imported under the arrangement laid down in Section 7
 - Do not exceed 5% m/m of the content of the ingredients of agricultural origin, additives and processing aids in the final product; and (water and salt is not included in the percentage calculation)

- Are approved by an approved certifying organisation for use either generally with appropriate restrictions or for specific use by a particular operator
- All ingredients of a multi-ingredient product shall be listed on the product label in order of their weight percentage. It shall be apparent which ingredients are of organic certified origin and which are not. All additives shall be listed with their full name

3.1.4 Where there is no organic source of product available, the labelling and advertising of a product as referred to in Section 1.2, paragraph 1.2.1 (b) which has been prepared partly from non-organic ingredients not satisfying the production requirements of Sections 4, 5, 6 and 9 or imported under the arrangement laid down in Section 7 may not be called organic. However the word “organic” may be used on the principal display in statements like “made with organic ingredients” provided there is a clear statement of the proportion of the organic ingredients. An indication that the product is covered by the certification body may be used, close to the indication of proportion of organic ingredients.

The above is allowed provided that all of the following are met:

- At least 70% m/m of the ingredients of agricultural origin satisfy the production requirements of Sections 4, 5, 6 and 9 are imported under the arrangement laid down in Section 7
- Only those substances listed in Section 10, Tables 3, 4 and 5 may be used as ingredients of non-agricultural origin
- The reference to organic production methods is included only in conjunction with the name of the ingredient or ingredients, which satisfy the production requirements of Sections 4, 5 and 6
- any ingredients not satisfying the production requirements of Section 4, 5 and 6 must be clearly indicated as such
- The product or any of its ingredients has not been subjected to treatments involving the use of ionising radiation
- All ingredients and their relative levels appear in descending order (m/m) in the list of ingredients. It shall be apparent which ingredients are of organic certified origin and which are not. All additives shall be listed with their full name
- All ingredients appear in the same colour and with an identical style and size of lettering
- The product was produced by an operator who is subject to the regular inspection system as set out in Section 9
- AsureQuality may authorise the use of non-organic raw materials subject to periodic review and re-evaluation

3.2 LABELLING OF FIBRE, TEXTILES AND APPAREL

Labelling of textiles follows all above standards regarding labelling of organic food with the exceptions in this section:

- Only substances allowed by the certification body based upon the criteria for textile processing in Section 6.7.11 shall be used to process fibre products labelled as “organic”
- Apparel and other textile products labelled as organic consist of at least 95% by weight organic fibre as described in Section 6.7*
- Textiles may be labelled “made with (...%) organically produced fibres” only if at least 70% of the fibres are organic as described in Section 6.7*

* (Percentages in points 2 and 3 above refer to the total weight of the fibres, and do not include the weight of the non-textile accessories such as buttons and zippers)

3.3 GMO LABELLING

Organic products shall not be labelled as GMO-free in the context of these Standards. Any reference to genetic engineering on product labels shall be limited to the production and processing methods themselves having not used GMOs.

3.4 LABELLING OF PRODUCT IN TRANSITION/CONVERSION TO ORGANIC

Products of farms in transition to organic production methods may only be labelled as “conversion to organic” after 12 months of production using organic methods providing that:

- The requirements referred to in paragraphs 3.1.1 and 3.1.2 are fully satisfied
- The indications referring to conversion do not mislead the purchaser of the product regarding its difference from products obtained from farms and/or farm units, which have fully, complete the conversion period
- Such indication take the form of words, such as “product under conversion to organic farming”, or similar words or phrase accepted by the competent authority of the country where the product is marketed, and must appear in a colour, size and style of lettering which is not more prominent than the sales description of the product
- The product contains only one crop ingredient of agricultural origin
- The labelling refers to the name and/or the code number of the official or officially approved certification body or authority to which the operator who has carried out the most recent preparation is subject

3.5 LABELLING OF NON-RETAIL CONTAINERS

The labelling of non-retail containers of product should meet the requirements set out in Section 9, paragraph 9.2.1.

4. PREPARATION AND PRODUCTION STANDARD FOR PLANTS AND PLANT PRODUCTS (INCLUDES MUSHROOMS)

4.1 CONVERSION

- 4.1.1 The principles set out in this section must normally have been applied on the parcels of land during a conversion period of at least two years before sowing or, in the case of perennial plants other than grassland, at least three years before the first harvest of products as referred to in Section 1.2, paragraph 1.2.1 (a). The TPA may, with NZFSA approval, decide, in certain cases, to extend or reduce that period having regard to previous parcel use but the period must equal or exceed 12 months prior to the start of the production cycle in the case of plant products from annual production. In the case of perennials (excluding pastures and meadows) a period of at least 18 months prior to harvest shall be required. The reduction in the conversion period must take account of the following points:
- The parcels were already converted or were undergoing conversion to organic farming
 - The degradation of the plant protection product concerned must result in a level of residue in the soil, and in the plant where the plant is a perennial, which is undetectable using current methods
 - Products of the harvest following treatment are not eligible for certification under the official organic assurance programme
 - In case of newly developed fields or fields not farmed for no less than two years, NZFSA may appropriately reduce the conversion period only after careful consideration, provided that AsureQuality confirms that prohibited substances have not been applied to those fields for two years
- 4.1.2 Whatever the length of the conversion period, it may only begin once a production unit has been placed under an inspection system and once the unit has started the implementation of the production rules in this Standard.
- 4.1.3 In cases where a whole farm is not converted at one time, it may be done progressively whereby this Standard is applied from the start of conversion on the relevant land parcels. Conversion from conventional to organic production should be effected using permitted techniques as defined in this Standard. In cases where a whole farm is not converted at the same time, the holding must be split into units as referred to in Section 9.
- 4.1.4 Areas in conversion as well as areas converted to organic production must not be alternated (switched back and forth) between organic and conventional production methods.

4.2 SOILS AND SOIL MANAGEMENT

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

- 4.2.1 The fertility and biological activity of the soil should be maintained or increased, where appropriate, by:
- (a) Cultivation of legumes, green manures or deep-rooting plants in an appropriate multi-annual rotation program
 - (b) Incorporation in the soil of organic material, composted or not, from holdings producing in accordance with this Standard. By-products from livestock farming, such as farmyard manure, may be used if they come from livestock holdings producing in accordance with this Standard

4.2.2 Substances, as specified in Section 10, Table 1, may be applied only to the extent that adequate nutrition of the crop or soil conditioning are not possible by the methods set out in (a) and (b) above, or, in the case of manures, they are not available from organic farming.

For compost activation, appropriate microorganisms or plant-based preparations may be used. Biodynamic preparations from stone meal, farmyard manure or plants may also be used for the purpose covered by Section 4.2.1

NB Application of substances in Section 10, Table 1 must be based on soil fertility test results and a fertiliser recommendation.

4.2.3 Hydroponics

The following is not a permitted process:

Hydroponics uses an inert material (degrades only slightly or not at all or does not react) that does not have the capacity to exchange ions with the liquid phase and which is not able to provide a suitable habitat (breeding ground) for a wide range of micro-organisms or to support enzymes. This means that it is not permitted to use media such as those described as below:

- Mineral wool
- Media consisting solely of baked clay granules, both expanded and non-expanded; consisting of pure sand, such as Fugzand.

This category also includes production systems that use no growth media at all, such as root sprinkler irrigation.

The following is a permitted practice:

For pot plants or planting material it is permitted to use potting compost or other growth media that is comprised solely of one or more products that are specified in Table one.

4.2.4 Sprouts production

Operators shall use organic seed produced according to this Standard.

Where necessary, seeds shall be sanitised with the following products hydrogen peroxide (subject to market requirements) , sodium hypochlorite (no residue on product at dispatch), ozone (subject to market requirements).

Growing areas shall be dedicated to organic production.

Equipment or trays used in the growing and harvesting of such products shall be new or thoroughly sanitized using permitted products as listed in table 6.

Substances for pest and disease management shall only be those listed in this Standard.

Growing media for:

- (a) Sprouts require the use of potable water

- (b) Wheat or barley grass require the use of compost made from materials produced according to this standard

Where necessary, sprouts and other final products may be cleaned and sanitized using potable water and the products listed for seed sanitisation.

4.3 PEST, DISEASE AND WEEDS

Diversity in plant production and activity shall be assured by minimum crop rotation requirements and/or variety of plantings. Minimum rotation practices for annual crops shall be established unless the operator demonstrates diversity in plant production by other means. Operators are required to manage pressure from insects, weeds, diseases and other pests while maintaining or increasing soil organic matter, fertility, microbial activity and general soil health.

For perennial crops the operator must maintain ground cover and a diversity of plants in the orchard.

All organic production systems shall display a set of positive processes capable of accounting for management of significant pests, weeds and diseases under normal circumstances.

4.3.1 Pests, diseases and weeds should be controlled by any one, or a combination, of the following measures:

- Choice of appropriate species and varieties
- Appropriate rotation programs
- Mechanical cultivation
- Protection of natural enemies of pests through provision of favourable habitat, such as hedges and nesting sites, ecological buffer zones which maintain the original vegetation to house pest predators
- Diversified ecosystems. These will vary between geographical locations. For example, buffer zones to counteract erosion, agro-forestry, rotating crops etc
- Flame weeding/steam weeding (mobile units only)
- Natural enemies including release of predators and parasites
- Biodynamic preparations from stone meal, farmyard manure or plants
- Mulching and mowing
- Grazing of animals
- Biological control
- Soil solarisation (plastic to be re-used and picked up once deteriorated)
- Mechanical controls such as traps, barriers, light and sound

4.3.2 Only in cases of imminent or serious threat to the crop and where the measures identified in 4.3.1 (above) are, or would not be effective, recourse may be had to products referred to in Section 10 Table 2.

NB: All substances in Section 10, Table 2 are restricted substances and can only be applied under the conditions as outlined in 4.3.2 above.

4.3.3 For pest management and control the following measures, in order of preference, should be used:

- Preventative methods, such as disruption and elimination of habitat and access to facilities by pest organisms, should be the primary methodology of pest management
- If preventative methods are inadequate, the first choice for pest control should be mechanical/physical and biological methods

- If mechanical/physical methods are inadequate for pest control, pesticidal substances appearing in Section 10, Table 2 (or other substances allowed for use by a AsureQuality in accordance with Section 10.1) may be used provided that they are accepted for use in handling, storage, transportation or processing facilities by the competent authority and so that contact with organic products is prevented

- 4.3.4 Pests should be avoided by good manufacturing practice. Pest control measures within storage areas or transport containers may include physical barriers or other treatments such as sound, ultra-sound, light, ultra-violet light, traps (pheromone traps and static bait traps) controlled temperature, controlled atmosphere (carbon dioxide, oxygen, nitrogen) and diatomaceous earth.
- 4.3.5 Use of pesticides not listed in Section 10, Table 2, for post harvest or quarantine purposes should not be permitted on products prepared in accordance with this Standard and would cause organically produced foods to lose their organic status.

4.4 SUBSTRATES FOR THE PRODUCTION OF MUSHROOMS

- 4.4.1 For the production of mushrooms, substrates may be used, if they are composed only of the following components:
- 4.4.2 Farmyard manure and animal excrements (including the products referred to in indents 1 to 4 Sections 10, Table 1).
 - (a) Either from holdings producing according to the organic production method;
 - (b) Or satisfying the requirements referred to in Section 10 Table 1, indents 1 to 4 as follows:
 - Farm yard manure
 - Liquid animal excrements
 - Composted animal excrements, including poultry manure and composted farmyard manure
 - Dried farmyard manure and dehydrated poultry manure

only up to 25%(*), and only when the product under 4.4.2 is not available

- 4.4.3 Products of agriculture origin, other than those covered under 4.4.2 (e.g. straw), from holdings producing according to organic production methods.
- 4.4.4 Peat not chemically treated.
- 4.4.5 Wood, not treated with chemical products after felling.
- 4.4.6 Mineral products of Section 10 Table 1, water and soil.

(*) This percentage is calculated on weight of total components of the substrate (excluding the covering material and any added water) before composting.

4.5 SEEDS AND VEGETATIVE REPRODUCTIVE MATERIAL

- 4.5.1 Seeds and vegetative reproductive material should be from plants grown in accordance with the provisions of Section 4 of this Standard for at least one generation or, in the case of perennial crops, two growing seasons. Where an operator can demonstrate to AsureQuality, that material for an appropriate

variety of the species in question and satisfying the above requirements is not available, AsureQuality may support:

- In the first instance, use of untreated seeds or vegetative reproductive material
- Certified organic seed, seedlings, and vegetable propagative material must be used after 31 December 2009
- If however, seed or propagating material can not be successfully obtained without the use of products other than those listed in table 2, AsureQuality may apply to NZFSA for dispensation to use a product not listed in table 2

Seeds not obtained by organic production cannot, under any circumstance, be used to harvest edible sprouts.

4.6 COLLECTION FROM THE WILD

4.6.1 The collection of edible plants and parts thereof, growing naturally in natural areas, forests and agricultural areas, is considered an organic production method provided that:

- The products are from a clearly defined collection area that is subject to the inspection/certification measures set out in Section 7 of this Standard
- Those areas have received no treatments with products other than those referred to in Section 10 for a period of three years before the collection
- The collection does not disturb the stability of the whole ecosystem, natural habitat, the maintenance of the species in the collection area, or threaten the existence of plant, fungal or animal species, including those not directly exploited
- The products are from an operator managing the harvesting or gathering of the products, who is clearly identified and familiar with the collection area
- The collection area shall be at an appropriate distance from conventional farming, pollution and contamination
- Operators shall take measures to ensure that wild, sedentary aquatic species are collected only from areas where the water is not contaminated by substances prohibited in these Standards

4.7 HANDLING AND STORAGE

4.7.1 All equipment from conventional farming systems shall be properly cleaned and free from residues before being used on organically managed areas.

Contamination Control

4.7.2 Contamination control, all relevant measures should be taken to minimize contamination. The following are considered as background contamination: DDT Levels should not exceed: meat 5.0mg/kg, milk fat 1.25mg/kg, eggs 0.5mg/kg. Lindane in food 2.0 mg/kg.

Heavy metals in compost shall not exceed the following levels: arsenic 20mg/kg, cadmium 3mg/kg, chromium 400mg/kg, copper 270mg/kg, lead 200mg/kg. Mercury 1mg/kg, nickel 60mg/kg, zinc 575 mg/kg.

The operator shall employ measures including barriers and buffer zones to avoid potential contamination and exclude contaminants in organic products.

- 4.7.3 In the case of reasonable suspicion of contamination the certification body shall make sure that an analysis of the relevant products and possible sources of pollution (soil, water, air and inputs) shall take place to determine the level of contamination and take measures accordingly.
- 4.7.4 For protected structure coverings, plastic mulches, insect netting and silage wrapping, only products based on polyethylene and polypropylene or other polycarbonates are allowed. These shall be removed from the soil after use and shall not be burned on the farmland. The use of polychloride based products is prohibited.

Soil and Water Conservation

- 4.7.5
- Soil and water resources must be handled in a sustainable manner
 - Relevant measures must be taken to prevent erosion, salinisation of soil and water, excessive and improper use of water and the pollution of ground water and surface water
 - Clearing of land through the means of burning organic matter, e.g. slash and burn, straw burning shall be restricted to a minimum
 - The clearing of primary forest and ecosystems is prohibited
 - Relevant measures shall be taken to prevent erosion
 - Crop production, processing and handling systems shall return nutrients, organic matter and other resources removed from the soil through harvesting by recycling, regeneration and addition of organic materials and nutrients
 - Operators shall take measures to maintain and improve landscape and enhance biodiversity quality

4.8 STORAGE AND TRANSPORT

- 4.8.1 Product integrity should be maintained during any storage and transportation and handling by use of the following precautions:
- Organic products must be protected at all times from co-mingling with non-organic products
 - Organic products must be protected at all times from contact with materials and substances not permitted for use in organic farming and handling
- 4.8.2 Where only part of the unit is certified, other product not covered by this Standard should be stored and handled separately and both types of products should be clearly identified.
- 4.8.3 Bulk stores for organic product should be separate from conventional product stores and clearly labelled to that effect.
- 4.8.4 Storage areas and transport containers for organic product should be cleaned using methods and materials permitted in organic production. Measures should be taken to prevent possible contamination from any pesticide or other treatment not listed in Section 10 before using a storage area or container that is not dedicated solely to products.

4.9 CLEANING, DISINFECTING AND SANITISING

Refer to Section 6.

4.10 GENETIC ENGINEERING

- 4.10.1 The deliberate use or negligent introduction of genetically engineered organisms or their derivatives to organic farming systems or products is prohibited. This shall include seed, propagation material, and farm inputs such as fertilizers, soil conditioners, vaccines or crop protection materials.
- 4.10.2 The use of genetically engineered organisms or their derivatives is prohibited. This shall include seed and farm inputs such as fertilizers, soil conditioners, vaccines or crop protection materials.
- 4.10.3 The use of genetically engineered seeds, pollen, transgene plants or plant material is not allowed.

5. PREPARATION AND PRODUCTION STANDARD FOR LIVESTOCK (INCLUDES BEES, POULTRY, DAIRY AND AQUACULTURE)

- 5.1 PRODUCTION AND PREPARATION OF LIVESTOCK AND LIVESTOCK PRODUCTS FROM THE FOLLOWING SPECIES; BOVINE (INCLUDING BUBALUS AND BISON SPECIES), PORCINE, OVINE, CAPRINE, EQUIDAE, POULTRY, RATITES AND CERVINE.**
-
- 5.1.1 Livestock production must contribute to the equilibrium of agricultural production systems by providing for the nutrient requirements of crops and by improving the soil's organic matter. It can thus help establish and maintain soil-plant, plant-animal and animal-soil interdependence.
- By utilising renewable natural resources (eg. livestock manure, legumes and fodder crops), the cropping/stock farming system and the pasturage systems allow soil fertility to be maintained and improved in the long term and thus contributes to the development of sustainable agriculture.
- 5.1.2 In order to minimise environmental pollution of natural resources, in particular, soil and water, organic production of livestock must in principle provide for a close relationship between such production and the land. Suitable multi-annual rotation systems and the feeding of livestock with organic crop products produced on the holding itself is desired.
- 5.1.3 In order to prevent pollution of water by nitrogenous compounds, organic livestock holdings must have appropriate storage capacity and plans for the spreading of solid and liquid livestock effluents.
- 5.1.4 A wide biological diversity should be encouraged and the choice of breeds must take account of their capacity to adapt to local conditions.
- 5.1.5 In organic stock farming, all livestock on one and the same production unit must be reared in accordance with the rules laid down in this Standard.
- 5.1.6 However, livestock not reared in accordance with the provisions of this Standard may be present on the holding provided they are reared on units where the buildings and land parcels are separated clearly from the units producing in accordance with the rules of this Standard, and a different species is involved.
- 5.1.7 Animals not reared in accordance with these Rules can use, for a limited period of time each year, the pasture of complying organic units, provided that such animals have had normal access to pastoral grazing (and not intensive husbandry). Other animals reared for organic production are not to be present on this pasture at the same time. This procedure must be authorised beforehand by the TPA. Guidelines on stocking density where animal manure from the operation is spread on pasture are set out in Table 8.
- 5.1.8 In order to provide for the basic nutritional requirements of the livestock, certain minerals, trace elements and vitamins may need to be used under well defined conditions.
- 5.1.9 Animal health management must mainly be based on prevention, by measures such as appropriate selection of breeds and strains, a balanced high-quality diet and a favourable environment, with particular regard to rearing density, livestock housing and husbandry practices.
- 5.1.10 The preventative use of chemically-synthesised allopathic medicinal products is not permitted in organic farming.

- 5.1.11 However, when animals become sick or injured, they must be treated immediately by giving preference to phytotherapeutic or homeopathic medicinal products and by limiting to a strict minimum the use of chemically synthesised allopathic treatments in order to guarantee the integrity of organic production in the eyes of consumers. Restrictive measures must be taken such as doubling the withdrawal period of the animal/s after use of chemically synthesised allopathic medicinal products.
- 5.1.12 Organic stockfarming is a land-related activity, except where authorised by way of exception in this Standard. Livestock must have access to a free range area and the number of animals per unit of area must be limited to ensure integrated management of livestock and crop production on the production unit, so minimising any form of pollution, in particular of the soil and of surface and ground water. The number of livestock must be closely related to the area available in order to avoid problems of over-grazing and erosion and to allow for the spreading of livestock manure so that any adverse effect on the environment can be avoided. Detailed rules on the use of livestock manure are set out in Section 5.8. The certification body may allow the feeding of animals with carried fresh fodder if this is a more sustainable way to use land resources than grazing. Animal welfare shall not be compromised.
- 5.1.13 Housing for all species of livestock must satisfy the needs of the animals concerned as regards ventilation, light, space and comfort. Sufficient area must accordingly be provided to permit ample freedom of movement for each animal and to develop the animals' natural social behaviour.
- 5.1.14 Systematic operations, which lead to stress, harm, disease or the suffering of animals during the production, handling, transport or slaughtering stages should be reduced to the minimum. However, specific interventions essential to certain types of production can be permitted. The use of certain substances to stimulate growth or modify their breeding cycles is not compatible with the principles of organic farming.
- 5.1.15 The special features of beekeeping call for specific provisions, in particular to ensure that sources of pollen and nectar of adequate quality are available in sufficient quantities.
- 5.1.16 All operators marketing products of organically reared livestock must be subject to regular and uniform inspections; a register should be kept accessible at the holding and updated with details of livestock arriving at and leaving the holding and any treatments administered to the livestock.
- 5.1.17 Genetically modified organisms (GMOs) and products derived from them are not compatible with the organic production methods. In order to maintain consumer confidence in organic production, genetically modified organisms, parts thereof and products derived there from, must not be used in products labelled as from organic production.

Genetic Engineering

- 5.1.18 The deliberate use or negligent introduction of genetically engineered organisms or their derivatives to organic farming systems or products is prohibited. This shall include animals, seed, propagation material, and farm inputs such as fertilizers, soil conditioners, vaccines or crop protection materials.
- 5.1.19 The use of genetically engineered organisms or their derivatives is prohibited. This shall include animals, seed and farm inputs such as fertilizers, soil conditioners, vaccines or crop protection materials.
- 5.1.20 The use of genetically engineered seeds, pollen, transgene plants or plant material is not allowed.

5.2 DEFINITIONS

Livestock production shall mean the production of domestic or domesticated terrestrial animals (including insects) and aquatic species farmed in fresh, salt or brackish water. The products of hunting and fishing of wild animals shall not be considered as from organic production.

5.3 CONVERSION

For additional rules specific to the USA market please refer to point 1.1 Supplementary Requirements for Organic Operators Producing for the USA Market.

5.3.1 Conversion of land associated with organic livestock production.

Where a production unit is converted, the whole area of the unit used for animal feed must comply with the rules on organic farming, using the conversion periods established relating to plants and plant products (Section 4.1).

The conversion period may be reduced to one year for pasturages, open air runs and exercise areas used by non-herbivore species.

5.3.2 Conversion of livestock and livestock products

Animals on a farm that is converting to organic production may undergo a one-time minimum conversion period according to the following schedule.

- Twelve months in the case of equidae and bovines (including bubalus and bison species) and small ruminants and pigs for meat production
- Six months in the case of animals for milk production
- Six weeks in the case of poultry for egg production

For additional rules specific to the USA market please refer to point 2.1 Supplementary Requirements for Organic Operators Producing for the USA Market.

5.3.3 Simultaneous conversion

By way of exception from: paragraphs 5.3.2, 5.5.2 and 5.5.4.

If there is simultaneous conversion of the complete production unit, including livestock, pasturage and/or any land used for animal feed, the total combined conversion period for both livestock, pasturage and/or any land used for animal feed shall be reduced to 24 months subject to the following conditions:

- The exception applies only to the existing animals and their offspring and at the same time also to the land used for animal feed/pasturage before starting the conversion
- The animals are mainly fed with products from the production unit

5.4 ORIGIN OF THE ANIMALS

For additional rules specific to the USA market please refer to point 2.1 Supplementary Requirements for Organic Operators Producing for the USA Market.

In the choice of breeds or strains, account must be taken of the capacity of animals to adapt to local conditions, their vitality, and their resistance to disease. In addition, breeds or strains of animals shall be selected to avoid specific diseases or health problems associated with some breeds or strains used in intensive production (e.g. porcine stress syndrome, PSE Syndrome, sudden death, spontaneous abortion, difficult births requiring caesarean operations etc.).

Livestock must come from production units, which comply with the rules on the various types of livestock production laid down in this Standard. Throughout their life, this system of production must be applied.

Subject to the prior approval by AsureQuality, livestock existing on the livestock production unit, not complying with the rules of this Standard can be converted.

When a herd or flock is constituted for the first time and organically reared animals are not available in sufficient numbers, non-organically reared livestock may be brought into an organic livestock production unit, subject to the following conditions:

- Pullets for the production of eggs must be less than 18 weeks old
- Chicks for broiler production must be less than two days old at the time when they leave the production unit where they were produced
- Dairy calves must be less than four weeks old have received colostrum and are fed a diet consisting mainly of full milk
- Piglets up to six weeks and after weaning

This exception, which must be authorised beforehand by AsureQuality.

By way of a third derogation, the renewal or reconstitution of the herd or flock shall be authorised by AsureQuality when organically reared animals are not available, and in the following cases:

- a) High mortality of animals caused by health or catastrophic circumstances
- b) Pullets for egg production no more than 18 weeks old
- c) Poultry for meat production less than three days old

Case (b) and (c) is authorised for a transitional period expiring on 31 December 2008.

In the case of pigs, pullets and poultry for meat production, this transitional exception will be re-examined before the date of expiry to see if there are grounds for an extension to this deadline.

By way of a fourth derogation, subject to a yearly maximum of 10% of adult equine or bovine (including bubalus and bison species of the adult porcine, ovine and caprine livestock, livestock may be brought in as female (nulliparous) animals, from non organic-production stock farms per year, for supplementing natural growth and for the renewal of the herd or flock, when organically reared animals are not available, and only when authorised by AsureQuality.

Non-organic animals brought in under derogation for breeding purposes may not be sold as organic.

This percentage may be increased due to:

- Unforeseen severe natural or man-made events
- Considerable enlargement of the farm

- Establishment of a new type of animal production on the farm
- Holdings with less than 10 animals
- Specific time limits will be set for any derogations

Males for breeding may be brought in from non organic-production stock farms provided that the animals are subsequently reared and fed in accordance with the rules laid down in this Standard. Conventional animals brought in for breeding purposes may not be sold as organic.

Where livestock come from units not complying with 5.1.1 to 5.1.15 above, the periods laid down in paragraph 5.3.2 must be observed if the products are to be sold as being from organic production and during these periods all the rules set out in this Standard must be complied with.

Where livestock is obtained from units not complying with this Standard the animals must be held in a quarantine area for twice the withholding period of any treatment that they have received.

5.5 FEED

For additional rules specific to the USA market please refer to point 2.2 Supplementary Requirements for Organic Operators Producing for the USA Market.

- 5.5.1 Feed is intended to ensure quality production rather than maximising production, while meeting the nutritional requirements of the livestock at various stages of their development animals must have ample access to feed and water. Force-feeding is forbidden.
- 5.5.2 Livestock must be fed on organically produced feeding stuffs.
- 5.5.3 Furthermore, livestock must be reared in accordance with the rules set out in this Standard, preferably using feed from the unit or when this is not possible using feed from other units or enterprises subject to the provisions of this Standard.
- 5.5.4 When the in conversion feeds come from the unit of the own holding up to 60% can be in conversion. For the calculation of feeding allowances only, feed produced on the farm unit during the first year of organic management, may be classed as organic. This refers only to feed for animals that are being produced within the farm unit. Such feed may not be sold or otherwise marketed as organic.

The prevailing part (at least more than 60%) of the feed shall come from the farm unit itself or be produced in co-operation with other organic farms in the region. The feeding of young mammals must be based on natural milk, provided by maternal milk or organic milk from their own species. All mammals must be fed on natural milk for a minimum period, depending on the species concerned, which shall be three months for bovines (including bubalus and bison species) and equidae, 45 days for sheep and goats and 40 days for pigs. Operators may provide non-organic milk when organic is not available.

- 5.5.5 For a transitional period, the use of a limited proportion of conventional feedstuffs is authorised where the farmer is unable to obtain feed exclusively from organic production. The maximum percentage of conventional feedstuffs authorised per year is 5 % in the case of herbivores during the period from 25 August 2005 to 31 December 2007 and;
- 15% for other species during the period from 25 August 2005 to 24 August 31 December 2007
 - 10% during the period from 25 August 2007 to 24 August 31 December 2009
 - 5% during the period from 25 August 1 January 2010 to 24 August 31 December 2011

These figures shall be calculated annually as a percentage of the dry matter of feedstuffs from all sources. To be approved by TPA prior to use. The maximum percentage authorized of conventional feed in the daily ration is 25% calculated as a percentage of the dry matter.

- 5.5.6 When forage production is lost, in particular as a result of exceptional weather conditions, AsureQuality can authorise for a limited period and in relation to a specific area, a higher percentage of conventional feed where such an exception is warranted.
- 5.5.8 Roughage, fresh or dried fodder, or silage must be added to the daily ration for pigs and poultry. All animals have access to roughage.
- 5.5.9 Only products listed in Section 10, Table 5, paragraphs 1.5 – Preservatives and 1.7 – Processing Aids Used in Feedstuffs can be used as additives and processing aids, respectively, in silage.
- 5.5.10 Conventional feed materials of agricultural origin can be used for animal feeding only if listed in Section 10 Table 7, and subject to the quantitative restrictions imposed in this Standard. Feeds obtained by Hexane extraction are not permitted.
- 5.5.11 In order to satisfy nutritional requirements of livestock, only products listed in Section 10 Table 7 Section 3 (feed materials from mineral origin), and Table 5, Sections 1.1 (trace elements) and 1.2 (vitamins, pro-vitamins and chemically well-defined substances having a similar effect), can be used for animal feeding.
- 5.5.12 Feeds, feed materials, compound feedstuffs, feed additives, processing aids for feeds and certain products used in animal nutrition must not have been produced with the use of genetically modified organisms or products derived from GMOs.

5.6 DISEASE PREVENTION AND VETERINARY TREATMENT

- 5.6.1 Disease prevention in organic livestock production shall be based on the following principle:

The selection of appropriate breeds or strains of animals as detailed in Section 5.4

- (a) The application of animal husbandry practices appropriate to the requirements of each species, encouraging strong resistance to disease and the prevention of infections
- (b) The use of high quality feed, together with regular exercise and access to pasturage, having the effect of encouraging the natural immunological defence of the animal
- (c) Ensuring an appropriate density of livestock, thus avoiding overstocking and any resulting animal health problems

- 5.6.2 The principles set out above should limit animal health problems so that they can be controlled mainly by prevention.

- 5.6.3 If despite all of the above preventative measures, an animal becomes sick or injured, it must be treated immediately, if necessary in isolation, and in suitable housing.

For additional rules specific to the USA market please refer to point 2.3 Supplementary Requirements for Organic Operators Producing for the USA Market.

- 5.6.4 The use of veterinary medicinal products in organic farming shall comply with the following principles:

5.6.5 Phytotherapeutic (e.g. plant extracts (excluding antibiotics), essences etc.), homeopathic products (e.g. plant, animal or mineral substances), trace elements and products listed in Section 10, Table 7, Section 3, shall be used in preference to chemically-synthesised allopathic veterinary medicinal products or antibiotics, provided that their therapeutic effect is effective for this species of animal, and the condition for which the treatment is intended.

- (a) If the use of the above products should not prove, or is unlikely to be effective in combating illness or injury, and treatment is essential to avoid suffering or distress to the animal, chemically-synthesised allopathic veterinary medicinal products or antibiotics may be used under the responsibility of a veterinarian.
- (b) The use of chemically synthesised allopathic veterinary medicinal products or antibiotics for preventive treatments is prohibited.

In addition to the above principles, the following rules shall apply:

The use of substances to promote growth or production, (including antibiotics, coccidiostatics and other artificial aids for growth promotion purposes) and the use of hormones or similar substances to control reproduction (e.g. induction or synchronisation of oestrus) or for other purposes, is prohibited. Nevertheless, hormones may be administered to an individual animal, as a form of therapeutic veterinary treatment.

- (c) Veterinary treatments to animals, or treatments to buildings, equipment and facilities which are compulsory under national legislation shall be authorised, including the use of immunological veterinary medicinal products when a disease has been recognised as present in a specific area in which the production unit is located and the disease cannot be controlled by other management techniques. Vaccines must not be genetically engineered unless mandated by the Government..

For additional rules specific to the USA market please refer to point 2.3 and 2.4(a) Supplementary requirements for Organic Operators producing for the USA market.

5.6.6 Whenever veterinary medicinal products are to be used the type of product must be recorded clearly (including an indication of the active pharmacological substances involved), together with details of the diagnosis; the posology; the method of administration; the duration of the treatment, and the legal withdrawal period. This information is to be declared to AsureQuality before the livestock or livestock products are marketed as organically produced. Livestock treated must be clearly identified, individually in the case of large animals, individually or by batch in the case of poultry and small animals.

For additional rules specific to the USA market please refer to point 2.3 and 2.4 (a) Supplementary Requirements for Organic Operators producing for the USA Market.

5.6.7 The withdrawal period between the last administration of an allopathic veterinary medicinal product to an livestock under normal conditions of use, and the production of organically produced foodstuffs from such livestock, is to be twice the legal withdrawal period or, in a case in which this period is not specified, 48 hours.

5.6.8 With the exception of vaccinations, treatments for parasites and any compulsory eradication schemes established by the NZFSA, where an animal or group of animals receive more than two or a maximum of three courses of treatments with chemically-synthesised allopathic veterinary medicinal products or antibiotics within one year (or more than one course of treatment if their productive lifecycle is less than

one year) the livestock concerned, or produce derived from them, may not be sold as being products produced in accordance with this Standard, and the livestock must undergo the conversion periods laid down in Section 5.3 of this Standard, subject to the agreement of AsureQuality.

5.7 FARMING MANAGEMENT PRACTICES, TRANSPORT AND IDENTIFICATION OF LIVESTOCK PRODUCTS

For additional rules specific to the USA market please refer to point 1.3 and 3.1 Supplementary Requirements for Organic Operators producing for the USA Market.

Husbandry Management Practices

- 5.7.1 In principle, the reproduction of organically reared livestock should be based on natural methods. Nevertheless artificial insemination is permitted. Other forms of artificial or assisted reproduction (for example embryo transfers and cloning) are prohibited.
- 5.7.2 Mutilations are prohibited however operations such as attaching elastic bands to the tails of sheep, tail-docking, and dehorning are exceptions and must not be carried out systematically in organic farming. Some of these operations may, however, be authorised by AsureQuality for reasons of safety (for example dehorning in young animals) or if they are intended to improve the health, welfare or hygiene of the livestock. Such operations must be carried out at the most appropriate age by qualified personnel and any suffering to the animals must be reduced to a minimum. Cutting of teeth, trimming of beaks is not permitted under any circumstances.
- 5.7.3 Physical castration is allowed in order to maintain the quality of products and traditional production practices (meat-type pigs, bullocks, capons, etc) but only under the conditions set out in the last sentence of paragraph 5.7.2.
- 5.7.4 Keeping livestock tethered is forbidden. Nevertheless, by exception from this principle AsureQuality can authorise this practice for individual animals upon justification by the operator, that this is necessary for safety or welfare reasons, and that such tethering is only for a limited period of time.
- 5.7.5 Where livestock are reared in groups, the size of the group must depend upon their stage of development and the behavioural needs of the species concerned. The keeping of livestock in conditions, or on a diet, which may encourage anaemia is prohibited.
- 5.7.6 For poultry, the minimum age at slaughter shall be:
- 51 days for chickens
 - 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 guinea fowl
 - 140 days for turkeys and roasting geese

Where producers do not apply these minimum slaughter ages, they must use slow-growing strains.

Transport and Slaughter

5.7.7 Transport of livestock must be carried out so as to limit the stress suffered by the animals in accordance with the relevant NZ legislation in force. Loading and unloading must be carried out with caution and without the use of any type of electronic or chemical stimulation to coerce the animals. The use of any allopathic tranquilliser, prior to and during transport, is prohibited.

The journey time to the slaughter shall not exceed eight hours. When there is no certified organic slaughterhouse within eight hours travel time, an animal may be transported for a period in excess.

During the period leading up to and at the time of slaughter, livestock must be handled in such a way that stress to the animals is reduced to a minimum.

Throughout the different steps of the process there shall be a person responsible for the well being of the animals.

Animals must be provided with conditions during transport and slaughter that reduce and minimize the adverse effects of:

- Stress
- Loading and unloading
- Mixing different groups of animals or animals of different sex
- Quality and suitability of mode of transport and handling equipment
- Temperatures and relative humidity
- Hunger and thirst; and
- The specific needs of each animal

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

Codes of recommendations and minimum standards for the welfare of animals transported with in New Zealand must be adhered to at all times.

Identification of Livestock Products

5.7.8 Livestock and livestock products are to be identified at all stages of their production, preparation, transport and marketing.

Livestock Manure

Normal New Zealand agriculture does not involve the spreading of animal manure from animals' housing. The provisions spelled out in this section are likely to apply only in exceptional cases.

5.7.9 To determine the appropriate density of livestock referred to above: the livestock units equivalent to 170kg of Nitrogen per year/hectare of agricultural area used for the various categories of animals. As a guide, use the figures as outlined in Section 10, Table 8. (Note: the stocking rates in Table 8 only apply to units where the spreading of animal manure from animals' housing on to pasture is undertaken).

5.7.10 Organic-production holdings may establish cooperation with other holdings and enterprises, which comply with the provisions of this Standard, with the intention of spreading surplus manure from organic production. The maximum limit of 170 kg of Nitrogen from manure per year/hectare of

agricultural area used will be calculated on the basis of all of the organic-production units involved in such a cooperation.

For additional rules specific to the USA market please refer to point 1.2 Supplementary Requirements for Organic Operators Producing for the USA Market.

- 5.7.11 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 of the soil.
- 5.7.12 To ensure sound fertilizer management, the capacity of such storage facilities for the animal manure must exceed the storage capacity required for the longest period of the year in which any application of fertilizer to the land is either inappropriate (in accordance with good agriculture practice) or when such application is prohibited.

5.8 FREE RANGE AREAS AND LIVESTOCK HOUSING

General Principles

- 5.8.1 Housing conditions for livestock must meet the livestock's biological and ethological needs (e.g. behavioural needs as regards appropriate freedom of movement and comfort). The livestock must have easy access to feeding and watering. Insulation, heating and ventilation of the building must ensure that air circulation, dust level, temperature, relative air humidity and gas concentration, are kept within limits which are not harmful to the animals. The building must permit plentiful natural ventilation and light to enter. No construction materials or production equipment shall be used in a way that may significantly harm human or animal health.

Poultry, rabbits and pigs shall not be kept in cages.
- 5.8.2 Free-range (which means access to pasture), open-air exercise areas, or open-air runs must if necessary, provide sufficient protection against rain, wind, sun and extreme temperatures, depending on the local weather conditions and the breed concerned. Landless systems of livestock production are prohibited. The maximum hours of artificial light used to prolong day length shall not exceed a maximum that respects the natural behaviour, geographical conditions and general health of the animals.
- 5.8.3 Stocking densities and the avoidance of over grazing. Herd animals shall not be kept individually.
- 5.8.4 The stocking density in buildings shall provide for the comfort and well being of the animals, which, in particular, shall depend on the species, the breed and the age of the animals. It shall also take account of the behavioural needs of the animals, which depend in particular on the size of the group and the animals sex. The optimum density will seek to ensure the animals welfare by providing them with sufficient space to stand naturally, lie down easily, turn round, groom themselves, assume all natural postures and make all natural movements such as stretching and wing flapping.
- 5.8.5 The minimum surface areas for indoor housing and outdoor exercise areas, and other characteristics of housing for different species and categories of animals, are laid down in Section 10, Table 9.
- 5.8.6 The outdoor stocking density of livestock kept on pasturage, other grassland, wetland, and other natural or semi-natural habitats, must be low enough to prevent poaching of the soil and over grazing of vegetation.

- 5.8.7 Housing, pens, equipment and utensils must be properly cleaned and disinfected to prevent cross-infection and the build-up of disease carrying organisms. Only the products listed in Section 10, Table 6, can be used for such cleaning and disinfection of livestock buildings and installations. Faeces, urine and uneaten or spilt food must be removed as often as necessary to minimise smell and to avoid attracting insects or rodents. Only the products listed in Section 10, Table 2, and point 5 can be used for the elimination of insects and other pests in buildings and other installations where livestock is kept.
- 5.8.8 Subject to the provisions in paragraph 5.6.3, all animals must have access to pasturage or an open-air exercise area or an open-air run, which may be partially covered. They must be able to use those areas whenever the physiological conditions of the animal, the weather conditions and the state of the ground permit. Herbivores must have access to pasturage whenever conditions allow.
- 5.8.9 Livestock housing must have smooth, but not slippery floors. At least half of the total floor area must be solid, that is, not of slatted or grid construction.
- 5.8.10 The housing must provide a comfortable, clean and dry laying/rest area of sufficient size, consisting of a solid construction, which is not slatted. Ample dry bedding strewn with litter material must be provided in the rest area. The litter must comprise straw or other suitable natural material.

The litter may be improved and enriched with any mineral product authorised for use as a fertiliser in organic farming in accordance with Section 10, Table 1. In addition to 5.8.1 requirements, in particular, animal welfare provisions relating to the rearing of calves and pigs must be complied with. For animals or products for which official organic assurances are sought:

(a) The housing of calves in individual boxes after the age of one week is not permitted

- 5.8.11 Sows must be kept in groups, except in the last stages of pregnancy and during the suckling period. Pigs shall not be kept in cages. Piglets may not be kept on flat decks or in piglet cages. Exercise areas must permit dunging and rooting by the animals. For the purposes of rooting different substrates can be used.

Poultry

- 5.8.12 Poultry must be reared in open-range conditions and cannot be kept in cages.
- 5.8.13 Water fowl must have access to a stream, pond or lake whenever the weather conditions permit in order to respect animal welfare requirements or hygienic conditions.
- 5.8.14 Buildings for all poultry must meet the following minimum conditions:
- At least one third shall be solid, that is, not of slatted or grid construction, and covered with a litter material such as straw, wood shavings, sand or turf
 - In poultry houses for laying hens, a sufficiently large part of the floor area available to the hens must be available for the collection of bird droppings
 - They must have perches of a size and number commensurate with the size of the group and of the birds as laid down in Section 10, Table 9
 - They 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 4m per 100m² area of the house available to the birds
 - Each poultry house must not contain more than:
 - 1500 chickens
 - 1500 laying hens
 - 2000 guinea fowl

- 1000 female Muscovy or Peking ducks or
- 1000 male Muscovy or Peking ducks or other ducks
- 1000 capons, geese or turkeys

- The total usable area of poultry houses for meat production on any single production unit must not exceed 1600 m²

- 5.8.15 In the case of laying hens natural light may be supplemented by artificial means to provide a maximum of 16 hours light per day with a continuous nocturnal rest period without artificial light of at least eight hours.
- 5.8.16 Poultry must have access to an open-air run whenever weather conditions permit and, whenever possible must have such access for at least one third of their life. These open-air runs must be mainly covered with vegetation, be provided with protective facilities, and permit animals to have easy access to adequate numbers of drinking and feeding troughs.
- 5.8.17 For health reasons, buildings must be emptied of livestock between each batch of poultry reared. The buildings and fittings are to be cleaned and disinfected during this time. In addition, when the rearing of each batch of poultry has been completed, runs must be left empty to allow vegetation to grow back and for health reasons. These requirements shall not apply to small numbers of poultry which are not kept in runs and which are free to roam throughout the day.

5.9 BEEKEEPING AND BEEKEEPING PRODUCTS

General Principles

- 5.9.1 Beekeeping is an important activity that contributes to the protection of the environment and agricultural and forestry production through the pollination action of bees.
- 5.9.2 The qualification of beekeeping products as being from organic production is closely bound up both with the characteristic of the hive treatments and the quality of the environment. This qualification also depends on the conditions for extraction, processing and storage of beekeeping products.
- 5.9.3 When an operator runs several beekeeping units in the same area all the units must comply with the requirements of this Standard.

By derogation from this principle, an operator can run units not complying with this Standard provided that all the requirements of this Standard are fulfilled with the exception of the provisions laid down in paragraph 5.9.12 for the siting of the apiaries. In that case, the product cannot be sold with references to organic production methods.

Where an exception has been granted AsureQuality will undertake inspections more frequently than once per year and at critical times. This will normally include inspections at the time of harvest of during processing.

Accurate production estimates must be recorded along with sales records. An inspection will include a visit of the non-organic fields and processing units.

Conversion Period

- 5.9.4 Beekeeping products can be sold with references to the organic production method only when the provisions laid down in this Standard have been complied with for at least one year. During the

conversion period the wax has to be replaced according to the requirements laid down in paragraph 5.9.37.

Origin of the Bees

- 5.9.5 In the choice of breeds, account must be taken of the capacity of animals to adapt to local conditions, their vitality and their resistance to disease. Preference shall be given to the use of European breeds of *Apis mellifera* and their local ecotypes.
- 5.9.6 Apiaries must be constituted by means of the division of colonies or the acquisition of swarms or hives from units complying with the provisions laid down in this Standard.
- 5.9.7 Subject to the prior approval by AsureQuality, apiaries existing in the production unit not complying with the rules of this Standard can be converted.
- 5.9.9 The reconstitution of the apiaries shall be authorised by NZFSA, when apiaries complying with this Standard are not available, in case of a high mortality of animals caused by health or catastrophic circumstances, subject to the conversion period.
- 5.9.10 For the renovation of the apiaries 10% per year of the queen bees and swarms not complying with this Standard can be incorporated into 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. In this case, the conversion period in 5.9.4 will apply.

Siting of the Apiaries

- 5.9.11 A map on an appropriate scale listing the location of hives as provided for in Section 9.1.2, first indent shall be provided to AsureQuality by the beekeeper. Where no such areas are identified, the beekeeper must provide the AsureQuality with appropriate documentation and evidence, including suitable analyses if necessary, that the areas accessible to the colonies meet the conditions required in this Standard.
- 5.9.12 The siting of the apiaries must:
- (a) Ensure enough natural nectar, honeydew and pollen sources for bees and access to water
 - (b) Be such that, within a radius of 3km from the apiary site, nectar and pollen sources consist essentially of organically produced crops and/or spontaneous vegetation, according to the requirements of Section 4 Preparation and Production Standard for Plant and Plant Products (includes mushrooms), and crops not subject to the provisions of this Standard but treated with low environmental impact methods which cannot significantly affect the qualification of beekeeping production as being organic
 - (c) Maintain enough distance from any non-agricultural production sources possibly leading to contamination, for example: urban centres, motorways, industrial areas, waste dumps, waste incinerators etc. AsureQuality in consultation with NZFSA, will determine how this requirement is met

The above requirements do not apply to areas where flowering is not taking place, or when the hives are dormant.

Feed

- 5.9.13 At the end of the production season, hives must be left with reserves of honey and pollen sufficiently abundant to survive the winter.
- 5.9.14 The artificial feeding of colonies is authorised where the survival of the hives is endangered due to extreme climatic conditions. Artificial feeding shall be made with organically produced honey, preferably from the same organic-production unit.
- 5.9.15 NZFSA can authorise the use of organically produced sugar syrup, or organic sugar molasses instead of organically-produced honey in artificial feeding. In particular, when it is required by climatic conditions that provoke crystallisation of honey.
- 5.9.16 The following information shall be entered in the register of the apiaries with regard to the use of artificial feeding: Type of product, dates, quantities and hives where it is used.
- 5.9.17 Other products different from those indicated in paragraphs 5.9.13 to 5.9.17 cannot be used in beekeeping, which complies with this Standard.
- 5.9.18 Artificial feeding may be carried out only between the last honey harvest and 15 days before the start of the next nectar or honeydew flow period.

Disease prevention and veterinary treatments

- 5.9.20 Disease prevention in beekeeping shall be based on the following principles:
- (a) The selection of appropriate hardy breeds
 - (b) The application of certain practices encouraging strong resistance to disease and the prevention of infections, such as: regular renewal of queen bees, systematic inspection of hives to detect any health anomalies, control of male broods in the hives, disinfecting of materials and equipment at regular intervals, destruction of contaminated material or sources, regular renewal of beeswax and sufficient reserves of pollen and honey in hives
- 5.9.21 If despite all the above preventive measures, the colonies become sick or infested, they must be treated immediately and, if necessary, the colonies can be placed in isolation apiaries.
- 5.9.22 The use of veterinary medicinal products in beekeeping, which complies with this Standard, shall respect the following principles:
- (a) Only veterinary medicinal products that are authorized for the specific uses under the Animal Remedies Act (and/or the ACVM Act, HSNO Act)
 - (a) Phytotherapeutic and homeopathic products shall be used in preference to allopathic products chemically synthesised, provided that their therapeutic effect is effective for the condition for which the treatment is intended
 - (b) If the use of the above mentioned products should prove or is unlikely to be effective to eradicate a disease or infestation which risks destroying colonies, allopathic chemically synthesised medicinal products may be used under the responsibility of a veterinarian, or other persons authorised byASUREQuality, without prejudice to the principles laid down in paragraph (a) above
 - (c) The use of allopathic chemically synthesised medicinal products for preventive treatments is prohibited

(d) Without prejudice to the principle in (a) above formic acid, lactic acid, acetic acid and oxalic acid and the following substances: menthol, thymol, eucalyptol or camphor can be used in cases of infestation with *Varroa jacobsoni*

- 5.9.23 In addition to the above principles, veterinary treatments or treatments to hives, combs etc, which are compulsory under national legislation shall be authorised.
- 5.9.24 If a treatment is applied with chemically-synthesised allopathic products during such a period, the colonies treated must be placed in isolation apiaries, the products shall not be sold as organic and all the wax must be replaced with wax complying with the conditions laid down in this Standard. Subsequently, the conversion period of one year will apply to those colonies.
- 5.9.25 The requirements laid down in the previous paragraph do not apply to products mentioned in paragraph 5.9.22 (b).
- 5.9.26 Whenever veterinary medicinal products are to be used, the type of product (including the indication of the active pharmacological substance) together with details of the diagnosis, the posology, the method of administration, the products cannot be marketed as organically produced.

Farming management practices and identification

- 5.9.27 The destruction of bees in the combs as a method associated with the harvesting of beekeeping products is prohibited.
- 5.9.28 Mutilation such as clipping the wings of queen bees is prohibited.
- 5.9.29 The replacement of the queen bees involving the killing of the old queen is permitted.
- 5.9.30 The practice of destroying the male brood is permitted only to contain the infestation with *Varroa jacobsoni*.
- 5.9.31 The use of chemical synthetic repellents is prohibited during honey extraction operations.
- 5.9.32 The zone where the apiary is situated must be registered together with the identification of the hives. AsureQuality must be informed of the moving of apiaries with a deadline agreed on with AsureQuality.
- 5.9.33 Particular care shall be taken to ensure adequate extraction, processing and storage of beekeeping products. All the measures to comply with these requirements shall be recorded.
- 5.9.34 The removal of the supers and the honey extraction operations must be entered in the register of the apiary.
- 5.9.35 The use of smoke should be kept to a minimum. Acceptable smoking materials should be natural or from materials that meet the requirements of these standards.

Characteristics of hives and materials used in beekeeping

- 5.9.35 The hives must be made basically of natural materials presenting no risk of contamination to the environment or the apiculture products.

- 5.9.36 With the exception of products mentioned in paragraph 5.9.22 (d) only natural products such as propolis, wax and plant oils can be used in hives.
- 5.9.37 The beeswax for new foundations must come from organic production units. During the conversion period the wax shall be replaced by organically produced wax. Where no prohibited products have been previously used in the hive and there is no risk of contamination of wax, replacement wax is not necessary. In cases where all the wax cannot be replaced during a one-year period, the conversion period may be extended with the approval of AsureQuality.
- 5.9.38 The use of combs, which contain broods, is prohibited for honey extraction.
- 5.9.39 For the purposes of protecting materials (frames, hives and combs) in particular from pests, only appropriate products listed in Section 10, Table 2 are permitted.
- 5.9.40 Physical treatments such as steam or direct flame are permitted.
- 5.9.41 For pest and disease control and for hive disinfection the following products may be allowed:
- Caustic soda
 - Lactic, oxalic, acetic acid
 - Formic acid
 - Sulphur
 - Etheric oils
 - Bacillus thuringiensis
- 5.9.42 In cases of parallel production AsureQuality will ensure:
- That the documentation regarding the production or processing, storage and sales is well managed and makes clear distinctions between certified and non-certified products
 - The measures taken to safeguard against the risk to the organic integrity is understood at all levels of the operation
 - Accurate production estimates are recorded and shall be checked against sales records
 - The inspection includes visits to the non-organic areas
 - Inspections shall occur more frequently than once per year and at critical times. This shall normally include inspection at the time of harvest or during processing

5.10 AQUACULTURE PRODUCTION

5.10.1. Scope

Aquaculture includes the farming of many different species using diverse forms of production in fresh-brackish and saltwater.

This Standard covers aquatic plants and fish and carnivorous, omnivorous and herbivorous organisms of all types and at all stages of growth, grown in any form of enclosure such as earthen ponds, tanks and cages (open and closed systems). Wild, stationary organisms in open collecting areas can be certified as organic. Organisms that are moving freely in open waters, and/or that are not capable of inspection according to general procedures for organic production, are not covered by these Standards.

Wild, sedentary organisms in open collecting areas may be able to be certified as organic, refer to Section 5.10.5 Location of Collecting areas.

Organic aquaculture is based on:

- High quality water entering the system
- Sound management practices
- The use of appropriate stocking rates
- Consideration of stock welfare
- The use of approved inputs

Operators shall comply with all relevant general requirements of Section 4 and 5 and aquatic ecosystems shall be managed to comply with relevant requirements of the introduction section of this Standard.

Aquatic plant production shall comply with the relevant requirements of the introduction section and Section 4 of this Standard.

5.10.2 Conversion to Organic Aquaculture

General Principles

The total production in each farming unit or under each operator's control should be converted to organic aquaculture over a specified period of time. Aquaculture production methods can vary widely according to biology of the organisms, technology used, geographical conditions, ownership structure, time span etc. These aspects need to be considered when determining the length of conversion. If a production unit is not converted all at once, part of the aquaculture unit may be converted and certified, as long as organically managed stock can be clearly defined and a designated area is set aside for organic production only.

Independent sections of the production unit should be converted in such a way that these standards are completely met on each section before it is certified as organic.

There should be a clear plan of how to proceed with the conversion. This plan shall be updated as necessary and should cover all aspects relevant to these standards.

5.10.2.1 The operation must comply with basic organic standards throughout the conversion period. Calculation of the conversion period may not start before the date of the last non-complying input or practice.

5.10.2.2 Where the entire production is not converted the following is required:

- Physical separation between conventional and organic production units
- Organic production can be inspected with respect to water quality, feed, medication, input factors or any other relevant sections of these standards, adequate documentation including financial accounting is available for both production systems
- Converted units are not switched between organic and conventional management

5.10.2.3 The length of the conversion period shall be 12 months or at least one life cycle of the organism in question, and will take into account life cycle and species, environmental factors, and past use of the site with respect to waste, sediments and water quality.

5.10.2.4 Organisms shall be raised organically from birth. Organisms of conventional origin may be brought-in if organic stock is not available provided they are not genetically engineered. Brought in organisms shall meet the following conversion periods:

- 12 months in the case of three year old fish for meat production or at least three quarters of their lifetime
- Six months in the case of small fish under two years
- 10 weeks for the production of pansize brought in before they are 20grams of weight
- 12 months in the case of caviar production

5.10.2.5 No conversion period is required in the case of:

- Open collecting areas for wild, sedentary organisms where the water is free-flowing and not directly or indirectly contaminated by substances prohibited in these standards
- Where the collecting area can be inspected with respect to water quality, feed, medication, input factors or any other relevant sections of these standards and where all requirements are met

5.10.3 General Principles

Management techniques must be governed by the physiological and ethological needs of the organisms in question. The organisms should be allowed to meet their basic behavioural needs. Management techniques, especially when applied to influence production levels and speed of growth, must maintain and protect the good health and welfare of the organisms.

When introducing non-native species, special care must be to avoid permanent disruption to natural ecosystems.

Production will maintain the aquatic environment and surrounding aquatic and terrestrial ecosystem, by using a combination of production practices which:

- Encourage and enhance biological cycles
- Use a wide range of methods for disease control e.g. emptying ponds between batches to light kill bacteria
- Prohibit synthetic fertilisers and avoid chemotherapeutic agents
- Provide for polyculture where possible

Converting material of plant and animal origin into animal production results in nutrient and energy losses. Where possible farms should have settling ponds for recycling nutrients and to ensure that the water quality leaving the farm is equal to the quality arriving to the farm

Standards

5.10.3.1 Operators must comply with all the relevant general requirements listed in Sections 4 and 5 of this Standard for fish and aquatic plants.

5.10.3.2 There must be adequate room in cages or ponds for the fish to exhibit natural behaviour, such as forming shoals. Stocking densities shall not compromise animal welfare. Operators shall routinely monitor water quality, stocking densities, health and behaviour or of each school and manage the operation to maintain water quality, health, and natural behaviour.

- 5.10.3.3 The standard-setting organization may allow artificially prolonged light periods, appropriate to the species and geographical location. Day length shall not be artificially prolonged beyond 16 hours per day.

Construction agents

- 5.10.3.4 Construction and operation of the production unit must not have a significant adverse effect on the surrounding aquatic or terrestrial ecosystems, the environment or local communities in accordance with the Resource Management Act.

Construction materials and production equipment must not contain compounds that could detrimentally affect the environment or contaminate the certified product, e.g. paints, materials impregnated with synthetic/chemical agents etc.

- 5.10.3.5 Adequate measures must be taken to prevent escapes of introduced or cultivated species, from enclosures and document any that are known to occur.
- 5.10.3.6 Adequate measures must be taken to prevent predation on species living in enclosures. The poisoning of predators is not permitted.
- 5.10.3.7 Environmental parameters such as temperature, dissolved oxygen, salinity and suspended solids must not fluctuate drastically within the system.

Operators shall take verifiable and effective measures to minimize the release of nutrients and waste into the aquatic ecosystem.

Continuous addition of ample unpolluted water is essential in preventing stress and sickness in farmed fish and is a cornerstone of organic aquaculture. If O₂ levels at the outflow of the farm fall below 50% of the incoming level for more than 24 hours action needs to be taken to lift the O₂ levels either by reducing fish numbers or increasing water flow.

Where possible farms should have settling ponds for recycling nutrients and to ensure that the water quality leaving the farm is equal to the quality arriving on the farm. In the case of filter feeding molluscs the water leaving the unit is likely to contain less nutrient and be of higher quality than water entering the farm.

Fertilisers and pesticides are prohibited unless they appear in Tables 1 and 2 of Section 10.

- 5.10.4 Location of Production Units.

General Principles

Location of organic production units maintains the health of the aquatic environment and surrounding aquatic and terrestrial ecosystem.

Production units shall be at appropriate distances from contamination sources and conventional aquaculture.

Aquaculture production will minimise negative environmental impact.

Standards

5.10.4.1 For sedentary or sessile organisms not living in enclosures the area shall be at an appropriate distance from pollution or harmful influence from conventional aquaculture/agriculture.

5.10.5 Location of Collecting Areas

General Principles

Wild, sedentary/sessile organisms in open collecting areas may be certified as organic if they are derived from an unpolluted, stable and sustainable environment.

Collecting areas should be at appropriate distances from contamination and conventional aquaculture.

Negative environmental impact from aquaculture production or harvesting shall be minimised.

Standards

5.10.5.1 The harvesting/production area shall be clearly defined and shall be capable of inspection with respect to water quality, feed, medication, input factors and other relevant sections of these standards.

5.10.5.2 Collecting areas shall be at appropriate distances from pollution and possible harmful influences from non-organic aquaculture.

5.10.6 Health and Welfare

General Principles

Living aquatic organisms should be handled as little as possible. Operators shall ensure that they meet legislative requirement as appropriate.

Note refer to Animal Welfare Act.

The cause of outbreaks of disease or infection should be identified, and management practices implemented to prevent the causative events and future outbreaks. When treatment is necessary the use of natural methods and medicines should be a first choice.

Disease treatment should be carried out so that it minimises harmful effects on the environment.

Standards

5.10.6.1 Conventional, veterinary medicinal products may only be used if no other justifiable alternative is available, and/or if the treatment is required by legislation. If an organism becomes sick or injured despite preventive measures that animal shall be treated promptly and adequately. Operators shall not withhold medication where it will result in the unnecessary suffering of the organism, even if the use of such medication will cause the organism to lose its organic status.

If veterinary medicinal products are used, the length of the withholding periods shall be not less than double of that required by legislation, or a minimum of 48 hours, whichever is longer.

The use of chemical allopathic veterinary drugs and antibiotics is prohibited for invertebrates.

- 5.10.6.2 Prophylactic use of veterinary drugs, except vaccinations in certain cases (see 6.6.3), is prohibited. The use of malachite green or formalin is not permitted as fungal treatment of eggs.
- 5.10.6.3 Vaccinations are permitted if diseases that cannot be controlled by other management techniques are known to exist in the region. Vaccinations are also permitted if mandatory under applicable legislation.
- Genetically engineered vaccines are prohibited.
- 5.10.6.4 Synthetic hormones and growth promoters are prohibited.
- 5.10.6.5 Current, accurate disease management records shall be kept. The records shall include:
- Identification of the infected and infecting organisms concerned
 - Details of treatment and duration, including application rate, method of application, frequency of repetition, concentration of organisms
 - Brand names of drugs used and active ingredients
- 5.10.6.6 In case of irregular behaviour by the organisms, the water quality shall be analysed and adjusted as necessary according to the needs of the organisms.
- 5.10.6.7 Aquatic animals shall not be subject to any kind of mutilation.
- 5.10.7 Breeds and Breeding

General Principles

Breeding strategies and practices in organic aquaculture interfere as little as possible with natural behaviour of the animals. Natural breeding methods should be used whenever possible.

Production systems that do not provide for natural breeding, for instance collection of fish eggs and sperm and their combination under human control leading to hatching of fish eggs may be used.

Organisms shall be raised organically from birth. If organic organisms are not available, brought in conventional aquatic organisms should spend at least 2/3 of their life in the organic system before being acceptable for certification.

Brought in conventional aquatic organisms should spend at least 2/3 of their life in the organic system before being acceptable for certification.

- 5.10.7.1 Where available brought in aquatic organisms shall come from organic sources.
- 5.10.7.2 The minimum length of time brought in aquatic organisms must be managed organically before certification is permitted see Section 6.2.4.
- 5.10.7.3 Artificially polyploid organisms and genetically engineered species or breeds, and sex-reversed fish are prohibited.
- 5.10.8 Nutrition (Aquaculture)

General Principles

Organic aquaculture production provides a good quality diet balanced according to the nutritional needs of the organism. Feed is only offered to the organisms in a way that allows natural feeding behaviour, with minimum loss of feed to the environment.

- 5.10.8.1 Aquaculture feeds shall generally contain 100% certified organic components or wild feed resources. When supplying food collected from the wild, the “Code of Conduct for Responsible Fisheries” (FAO, 1995) shall be followed.

When certified organic components or wild foods are not available in adequate quantity or quality, AsureQuality may allow feed of conventional origin up to a maximum of 5% (by dry weight). Permission from AsureQuality must be sought.

Operators may use non-organic aquatic animal protein and oil sources provided they:

- Are harvested from independently verified sustainable sources
- Are verified to have contamination levels below limits established by AsureQuality
- Do not constitute 100% of the diet

In cases of unforeseen severe natural events, the standard-setting organization may grant exceptions from the percentages mentioned above in 5.10.8.1. Specific time limits and conditions will be established for such exceptions. Permission from AgriQuality must be sought.

Operators may 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:
- Organic aquaculture is in early stages of development

At least 50% of the diet should be organic ingredients by 2020.

- 5.10.8.2 Feed rations should be designed so that plant /or animal sources, or both, supply most of the nutritional needs of the organism.

The use of mineral supplements if they are applied in their natural composition is permitted.

- 5.10.8.3 The following products shall not be included in or added to the feed or be given in any other way to the organisms:

- Material from the same species/genus/family as the one being fed
- Feedstuffs subjected to solvent (e.g. hexane) extraction
- Pure amino acids
- Urea
- Synthetic growth promoters and stimulants
- Synthetic appetisers
- Synthetic antioxidants and preservatives
- Artificial colouring agents
- Genetically engineered organisms or products thereof.

5.10.8.4 Vitamins, trace elements and supplements used shall be from natural origin when available.

Allowable additives for colouring effects include yeast and algal-based products that have approval.

The use of substances from synthesised or unnatural sources will only occur under conditions established by the standard-setting organization.

5.10.8.5 The following feed preservatives may be used:

- Bacteria, fungi and enzymes
- By-products from the food industry (e.g. molasses)
- Plant based products.
- Salt if appropriate

Synthetic chemical feed preservatives may be permitted in response to severe weather conditions. The standard-setting organization shall establish conditions for their use.

5.10.9. Harvesting

Standards

Harvesting certified organic aquatic organisms from enclosures or collecting areas creates minimum stress to the organisms. The act of collection does not negatively affect natural areas.

Harvesting or gathering of products shall not exceed the sustainable yield of the ecosystem, or threaten the existence of other species or negatively affect wild areas.

5.10.9.1 Aquatic vertebrates shall be stunned before killing. Operators shall ensure that equipment used to stun fish is sufficient to remove sensate ability and or kill the fish and is maintained and monitored.

Ice/ice slurry and clove oil for pre slaughter sedation of fish is permitted.

Fish must not be slaughtered in a pond or a cage containing live fish.

The process must be managed so as to avoid stress to the fish prior to slaughter and to avoid suffering during slaughter.

Must be in compliance with the Agricultural Compounds and Veterinary Medicines Act 1997.)

5.10.9.2 The species will only be certified if the sustainable yield of the ecosystem is not exceeded, and that the existence of any other species is not threatened.

5.10.9.3 The farm manager must keep an operations logbook as the record of inputs and outputs for each production unit. It must record:

- i. The number and source of fingerlings introduced to ponds/cages
- ii. The type, source (including batch number) and quantity of food used in each fish-raising unit
- iii. Fish deaths and estimated mortality in each unit
- iv. The diagnosis for significant mortalities and any treatment administered
- v. The numbers of fish transferred between units or harvested

- vi. The data obtained from environmental monitoring undertaken by the manager or Regional Council, e.g. water temperature, oxygen content and pH

5.10.9.4 Additives and processing aids must only be used to:

- i. Maintain product quality and keeping ability
- ii. Enhance composition, consistency and appearance

Unrefined sea salt with no additives, and rock salt are permitted.

Preserving products by smoking may be permitted depending on the materials and process used. Prior written approval must be obtained from the certifier.

5.10.10 Transportation of Living Marine Animals

Standards

The transportation medium should be appropriate for the species with regards to water quality including salinity, temperature, oxygen etc. Transportation distance, duration and frequency should be minimised.

Transport of living aquatic animals should be minimised and be done in the most considerate manner. Living animals should be monitored regularly and maintained in a healthy state during transportation.

The operator shall implement defined measures to ensure that organic aquatic animals are provided with conditions during transport and slaughter that meet animal specific needs and minimize the adverse effects of:

- Diminished water quality
- Time spent in transport
- Stocking density
- Toxic substances
- Escape

5.10.10.1 Oil of cloves and ice/ice slurry is permitted for transport

Transportation shall not cause avoidable stress or injury to the animals. Transportation equipment and/or construction materials shall not have toxic effects. Any sorting or moving of fish stock must be recorded.

5.10.10.2 Chemically synthesised tranquillisers or stimulants shall not be given to the animals prior to or during transport or at any time.

5.10.10.3 There shall be a minimum of one person specifically responsible for the well being of the animals during transport.

5.10.10.4 Each organism or groups of organisms shall be identified at each step in the transport and slaughter process.

6. PROCESSING AND HANDLING STANDARD (INCLUDES TEXTILES)

6.1 GENERAL

- 6.1.1 Handlers and processors shall not co-mingle organic products with non-organic products.
- 6.1.2 All organic products shall be clearly identified as such, and stored, handled and transported in a way that prevents contact with conventional product throughout the entire process. This includes separate storage for organic and conventional products.
- 6.1.3 The handler and 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.

For additional rules specific to the USA market please refer to part 5.1 of the Supplementary Requirements for Organic Operators Producing for the USA Market.

6.2 INGREDIENTS

- 6.2.1 Organically derived ingredients must be used if available. Non-organic ingredients may be used in the preparation of processed organic products where such ingredients:
- Are of agricultural origin and cannot be sourced as organic in sufficient quantities. Note: In cases where an ingredient of organic origin is unavailable in sufficient quality or quantity, AsureQuality may authorise the use of non-organic ingredients subject to periodic review and re-evaluation. These materials shall not be genetically engineered
 - Are additives and processing aids, which appear in Tables 3 and 4 and are in compliance with the specific conditions
 - Do not exceed 5% m/m of the content of the total ingredients of agricultural origin, additives and processing aids in the final product. Water and salt may be used as ingredients in the production of organic products and are not included in the percentage calculations of organic ingredients
- 6.2.2 Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used unless their use is legally required in the food products in which they are incorporated or where severe dietary or nutritional deficiency can be demonstrated.
- 6.2.3 Preparations of micro-organisms and enzymes commonly used in food processing may be used, with the exception of genetically engineered micro-organisms and their products. Processors shall use micro-organisms grown on substrates that consist entirely of organic ingredients and substances in Tables 3 and 4, if available. This includes cultures that are prepared or multiplied in-house.
- 6.2.4 Organic processed products shall not use ingredients, additives or processing aids derived from GMOs.
- 6.2.5 Inputs, processing aids and ingredients shall be traced back one step in the biological chain to the direct source organism from which they are produced to verify that they are not derived from GMOs.

6.3 PROCESSING METHODS

- 6.3.1 Processing methods shall be mechanical, physical or biological in nature and minimise the use of non-agricultural ingredients, processing aids and additives. Any additives, processing aids, or other material that chemically react with or modify organic food shall be restricted and must appear in Tables 3 and 4.
- 6.3.2 Extraction shall only take place with water, ethanol, plant and animal oils, vinegar, carbon dioxide and nitrogen. These shall be of a quality appropriate for their purpose.
- 6.3.3 Irradiation is not permitted. This includes irradiation for the purposes of pest control, food preservation, elimination of pathogens or sanitation.
- 6.3.4 Filtration equipment shall not contain asbestos, or utilize techniques or substances that may negatively affect the product.
- 6.3.5 The following conditions of storage are permitted (for allowed substances in these conditions, see Tables 3 and 4)
- Controlled atmosphere
 - Temperature control
 - Drying
 - Humidity regulation
- 6.3.6 Ethylene gas is permitted for ripening.

6.4 PEST AND DISEASE CONTROL

- 6.4.1 A handler or processor is required to manage pests 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 appearing in Tables 3 and 4 (or other substances allowed for use by AsureQuality in accordance with Section 10) may be used provided that they are accepted for use in handling, storage, transportation or processing facilities by the competent authority and so that contact with organic products is prevented
 - d. Substances (other than pesticides) used in traps
- 6.4.2 Prohibited pest control practices include, but are not limited to, the following substances and methods:
- a. Pesticides not contained in Table 2
 - b. Fumigation with ethylene oxide, methyl bromide, aluminum phosphide or other substance not contained in Table 2
 - c. Ionizing radiation
- 6.4.3 The direct use or application of a prohibited method or material renders that product no longer organic. The operator shall take necessary precautions to prevent contamination, including the removal of organic product from the storage or processing facility, and measures to decontaminate the equipment or facilities. Application of prohibited substances to equipment or facilities shall not contaminate

organic product handled or processed therein. Application of prohibited substances to equipment or facilities shall not compromise the organic integrity of product handled or processed therein.

- 6.4.4 Pests should be avoided by good manufacturing practice. Pest control measures within storage areas or transport containers may include physical barriers or other treatments such as sound, ultra-sound, light, ultra-violet light, traps (pheromone and static bait traps), controlled temperature, controlled atmosphere (carbon dioxide, oxygen, nitrogen) and diatomaceous earth.

6.5 PACKAGING

- 6.5.1 Packaging material shall not contaminate organic food.
- 6.5.2 Packaging materials, and storage containers, or bins that contain a synthetic fungicide, preservative, or fumigant are prohibited.
- 6.5.3 Organic produce shall not be packaged in reused bags or containers that have been in contact with any substance likely to compromise the organic integrity of product or ingredient placed in those containers.
- 6.5.4 Processors of organic food should avoid unnecessary packaging materials.
- 6.5.5 Organic food should be packaged in reusable, recycled, recyclable, and biodegradable packaging whenever possible.

6.6 CLEANING, DISINFECTING AND SANITISING OF FOOD AND FOOD PROCESSING FACILITIES

- 6.6.1 Operators shall take all necessary precautions to protect organic food against contamination by substances prohibited in organic farming and handling, pests, disease-causing organisms, and foreign substances.
- 6.6.2 Only water and substances that appear in Tables 3 and 4, as processing aids may be used after harvest as cleaners or disinfectants in direct contact with organic food. Substances other than those appearing in Tables 3 and 4 are only allowed if they are legally required.
- 6.6.3 Operations that use cleaners, sanitisers, and disinfectants on food contact surfaces shall use them in a way that maintains the food's organic integrity.
- 6.6.4 The operator shall perform an intervening event between the use of any cleaner, sanitiser, or disinfectant and the contact of organic food with that surface sufficient to prevent residual contamination of that organic food. Acceptable intervening events include a hot water rinse, a sufficient flush of organic product that is not sold as organic, or adequate time for the substance to volatilise.
- 6.6.5 Substances included in Table 6 shall be evaluated by the criteria for processing and handling substances that appear in Section 10.
- 6.6.6 Operators should design facilities, plant layout, install equipment, and devise a cleaning, disinfecting and sanitizing system that prevents the contamination of food and food contact surfaces by prohibited substances, non-organic ingredients, pests, disease-causing organisms, and foreign material.
- 6.6.7 Handlers and processors should use physical and mechanical means such as dry heat, moist heat, exclusion, and other non-chemical methods to prevent microbiological contamination.

6.6.8. Operators should not use persistent cleansers and/or sanitizers that are not easily removed by an intervening event (e.g. quaternary ammonia) or have an adverse impact on the environment (e.g. halogenated compounds).

6.6.9. Steam traps and filters should be used to remove non-volatile boiler water additives.

6.7 TEXTILE FIBRE PROCESSING

6.7.1 Fibre processing shall comply with the requirements of Sections 6.1 and 6.4.

6.7.2 Labelling of textiles shall comply with the requirements of Section 3 “Labelling and claims.”

6.7.3 Operators shall have a management system in place, which ensures that any effluents released into the environment resulting from wet processing are properly treated.

6.7.4 Organic fibre processing should use appropriate techniques that are least damaging to the environment.

6.7.5 Whenever possible, organic fibre products should be processed using only mechanical and/or physical methods.

6.7.6 The amounts of chemical substances used in organic fibre processing should be limited to the minimum quantity needed to achieve the desired product. (IFOAM rec)

6.7.7 Operators should avoid the use of non-biodegradable, bio-accumulating input products and heavy metals.

6.7.8 Organic textiles should be used to the maximum extent possible and not blended with non-organic fibres.

6.7.9 Equipment should be constructed, maintained, and operated in a way that avoids contamination of fibres and fibre products.

6.7.10 Non-organic, natural or synthetic fibres blended with organic fibres should not contain toxic substances or fibres produced in a way that is hazardous to consumers, workers or the environment.

6.7.11 In addition to the requirements outlined in Section 10, the following additional consideration apply to substances used to process and handle fibre:

- Substances may be allowed in organic textile processing only if they are biodegradable, generally recognized as safe and hypoallergenic
- Substances shall be prohibited in organic textile processing if they are carcinogenic, mutagenic, teratogenic, toxic, or produced by genetically modified organisms or ionizing radiation

7. IMPORTED PRODUCT AND/OR INGREDIENT

Product legally imported from other countries may be incorporated in New Zealand product complying with the provisions of the NZFSA official organic assurances programme provided that:

- 7.1 It is accompanied by equivalent assurances from the source country's competent authority or a NZFSA-recognised TPA specifying that:
- In addition to New Zealand's, the importing market's requirements for official organic assurances have been complied with; or that
 - The product was obtained within a system of rules equivalent to these Rules
- 7.2 It carries adequate identification; and complies with labelling requirements in Section 3
- 7.3 The operator importing the product is participating in the programme
- 7.4 Proper separation is maintained from non-complying product, and from New Zealand product awaiting assessment
- 7.5 The source country's assurance or certificate accompanies the product to the first consignee. The importer must keep the assurance available to the TPA for at least three years
- 7.6 Imported organic products trans-shipped through New Zealand (and not requiring further processing or incorporation into New Zealand product) will not be issued with a NZFSA Official Organic Assurance as it will be deemed to be product of the originating country

8. SOCIAL JUSTICE

8.1 Operators shall have a policy on social justice.

Operators who hire fewer than ten (10) persons for labour and those who operate under a state system that enforces social laws may not be required to have such a policy.

8.2 In cases where production is based on violation of basic human rights and clear cases of social injustice, that product cannot be declared as organic.

8.3 Operators shall not use forced or involuntary labour.

8.4 Employees and contractors of organic operations have the freedom to associate, the right to organise and the right to bargain collectively.

8.5 Operators shall provide their employees and contractors with equal opportunity and treatment, and shall not act in a discriminatory way.

8.6 Operators shall not hire child labour.

Children are allowed to experience work on their family's farm or a neighbouring farm provided that:

- a. Such work is not dangerous or hazardous to their health and safety
- b. It does not jeopardize the children's educational, moral, social, and physical development
- c. Children are supervised by adults or have authorisation from a legal guardian

9. MINIMUM INSPECTION REQUIREMENTS AND PRECAUTIONARY MEASURES UNDER THE INSPECTION OR CERTIFICATION SYSTEM

9.1 PRODUCTION UNITS

- 9.1.1 Production should take place in a unit where the land parcels, production areas and storage facilities are clearly separate from those of any other unit which does not produce according to this Standard. Preparation and/or packaging workshops may form part of the unit, where its activity is limited to preparation and packaging of its own agricultural produce.
- 9.1.2 When the inspection arrangements are first implemented, the operator and AsureQuality must draw up and sign a document, which includes:
- A full description of the unit and/or collection areas, showing the storage and production premises and land parcels and, where applicable, premises where certain preparation and/or packaging operations take place
 - In the case of collection of wild plants, the guarantees given by third parties, if appropriate, which the producer can provide to ensure that the provisions of Section 4.6 are satisfied
 - All the practical measures to be taken at the level of the unit to ensure compliance with this Standard
 - The date of the last application on the land parcels and/or collection areas concerned of products the use of which is not compatible with this Standard
 - An undertaking by the operator to carry out operations in accordance with Sections 3, 4 and 5 and to accept, in event of infringements, implementation of the measures as referred to in Section 9.5
- 9.1.3 Each year, before the date indicated by AsureQuality, the operator should notify its schedule of production of crop products, giving a breakdown by land parcel.
- 9.1.4 Written and/or documentary accounts should be kept which enable AsureQuality to trace the origin, nature and quantities of all raw materials bought, and the use of such materials; in addition, written and/or documentary accounts should be kept of the nature, quantities and consignees of all agricultural products sold. Quantities sold directly to the final consumer should preferably be accounted for on a daily basis. When the unit itself processes agricultural products, its accounts must contain the information required in 9.3.2, third point of this section.
- 9.1.5 Storage on the unit of input substances other than those whose use is within Sections 4 and 5 of this Standard is prohibited.
- 9.1.6 AsureQuality must undertake a full physical inspection, at least once a year of the unit. Samples for testing of products not listed in this Standard may be taken where their use is suspected. An inspection report should be drawn up after each visit. Additional occasional unannounced visits may also be undertaken according to need or at random.
- 9.1.7 The operator should give AsureQuality, for inspection purposes, access to the storage and production premises and to the land parcels, as well as to the accounts and relevant supporting documents. The operator should also provide AsureQuality with any information deemed necessary for the purposes of the inspection.

9.1.8 Where a producer manages several horticultural holdings in the same region, the units which produce horticultural or horticultural products not covered by Section 1 will also be subject to the inspection system as regards the first, second and third indents of point 9.1.2 of this Section on horticultural and horticultural products and as regards the provisions on horticultural management, horticultural records and the principles governing storage of horticultural products used.

9.2 TRANSPORT AND HANDLING

9.2.1 Products referred to in Section 1 of this Standard which are not in their packaging for the end consumer should be transported in a closed manner which should prevent contamination or substitution of the content with substances or product not compatible with this Standard and the following information, without prejudice to any other indications required by law:

- The name and address of the person responsible for the production or preparation of the product
- The name of the product
- That the product is of organic status

However, the closing of packaging or containers is not required where:

- (a) Transportation is between a producer and another operator who are both complying with the provisions of the NZFSA official organic assurances programme
- (b) The products are accompanied by a document giving the information required under 9.2.3

9.2.2 The certified operator owning the product at the point of transport shall be responsible for maintaining the organic integrity in the transport process, unless transport operations are certified in their own right.

9.2.3 Where an operator runs several production units in the same area producing plants or plant products not covered in Section 1 (Introduction and Scope) together with storage premises for input products (such as fertilisers, plant protection products, seed) these must all also be included in the OMP, GE crops will not be allowed to be grown on the non-organic part of the property. Plants of the same variety as those produced at the unit referred to in 9.2.1 may not be produced at these units.

However, producers are exempt from the requirement in the last sentence of 9.2.3:

- (a) In production of perennial plant products (fruit growing, vines and hops) provided the following conditions are met:
 1. The production in question forms part of a conversion plan in respect of which the producer gives a firm undertaking and which provides for the beginning of the conversion of the last part of the area concerned to organic production in the shortest possible period, which may not in any event exceed a maximum of five years
 2. Appropriate measures have been taken to ensure the permanent separation of the products obtained from each unit concerned
 3. The TPA is notified of the harvest of each of the products concerned at least 48 hours in advance
 4. Immediately upon completion of the harvest, the producer informs the TPA of the exact quantities harvested on the units concerned together with any particular distinguishing features (such as quality, colour, average weight, etc.) and confirms that the measures described in the OMP to separate the products have been applied

5. The conversion plan and the measures referred to in points 1 and 2 have been approved by the TPA. This approval must be confirmed each year after the start of the conversion plan
- (b) In the case of areas intended for agricultural research agreed by national authorities, provided that conditions 9.2.3 (a) 2., 3., and 4. and the relevant part of condition 5 are met
- (c) In the case of production of seed, vegetative propagating material and transplants, provided that conditions 9.2.3 (a) 2., 3., and 4. and the relevant part of condition 5. are met

An exemption to 9.2.3 applies on approval by the TPAs under a derogation expiring 31 December 2010 except for the GM requirement.

9.3 PREPARATION AND PACKING UNITS

9.3.1 The producer and/or operator should provide:

- A full description of the unit, showing the facilities used for the preparation, packaging and storage of agricultural products before and after the operations concerning them
- All the practical measures to be taken at the level of the unit to ensure compliance of this Standard

This description, and the measures concerned, should be signed by the responsible person of the unit and the certification body.

The report should include an undertaking by the operator to perform the operations in such a way as to comply with Section 9 of this Standard and to accept, in the event of infringements, the implementation of measures as referred to in paragraph 9.5.1 of this Standard and be countersigned by both parties.

9.3.2 Written accounts should be kept enabling the certification body or authority to trace:

- (a) The origin, nature and quantities of agricultural products as referred to in Section 1 of this Standard, which have been delivered to the unit
- (b) The nature, quantities and consignees of products as referred to in Section 1 of this Standard, which have left the unit
- (c) Any other information such as the origin, nature and quantities of ingredients, additives and manufacturing aids delivered to the unit and the composition of processed products, that is required by AsureQuality for the purposes of proper inspection of the operations

9.3.3 Where products not referred to in Section 1 of this Standard are also processed, packaged or stored in the unit concerned:

- The unit must have separate areas within the premises for the storage of products as referred to in Section 1 of this Standard, before and after the operations
- Operations should be carried out continuously until the complete run has been dealt with, separated by place or time from similar operations performed on products not covered by Section 1 of this Standard
- If such operations are not carried out frequently, they should be announced in advance, with a deadline agreed on with AsureQuality
- Every measure should be taken to ensure identification of lots and to avoid mixtures with products not obtained in accordance with the requirements of this Standard

- 9.3.4 AsureQuality should ensure a full physical inspection, at least once a year of the unit. Samples for testing of products not listed in this Standard may be taken where their use is suspected. An inspection report must be drawn up after each visit and countersigned by the person responsible for the unit inspected. Additional occasional unannounced visits may also be undertaken according to need or at random.
- 9.3.5 The operator should give AsureQuality, for inspection purposes, access to the unit and to written accounts and relevant supporting documents. The operator should also provide the inspection body with any information necessary for the purposes of inspection.
- 9.3.6 The requirements in respect to the transport as laid down in paragraph 9.2.1 of this Section are applicable.
- 9.3.7 On receipt of a product referred to in Section 1 of this Standard, the operator shall check:
- The closing of the packaging or contained where it is required
 - The presence of the indications referred to in this Section. The result of this verification shall be explicitly mentioned in the accounts. When there is any doubt that the product cannot be verified according to the production system provided for in Section 4 and / or 5 of this Standard, it must be placed on the market without indication referring to the organic production method.

9.4 LIVESTOCK AND LIVESTOCK PRODUCTS PRODUCED BY ANIMAL FARMING

- 9.4.1 When the inspection system applying specifically to livestock production is first implemented, the producer and the inspection body must draw up:
- (a) A full description of the livestock buildings, pasturages, open-air exercise areas, open air runs, etc. and, where applicable, the premises for the storage, packaging and processing of livestock, livestock products, raw materials and inputs
 - (b) A full description of the installations for the storage of livestock manure
 - (c) Plan for spreading such manure agreed with AsureQuality, together with a full description of the areas given over to crop production
 - (d) Where appropriate, the arrangements laid down by contract with other farms as regards the spreading of manure
 - (e) Management plan for the organic-production livestock unit (e.g. management for feeding, reproduction, health, etc)
 - (f) All practical measures to be taken on the livestock farm to ensure compliance with this Standard
- 9.4.2 The description and the measures concerned are to be set out in an inspection report countersigned by the producer concerned.
- 9.4.3 In addition, the report must specify an undertaking by the producer to carry out operations in accordance with Section 3, 4 and 5 and to accept, in the event of infringement, enforcement of the measures referred to in Section 4.7.
- 9.4.4 The general requirements on inspection in points 9.1 to 9.2 covering crops and crop products are applicable to livestock and livestock products.
- 9.4.5 By way of a derogation from those rules, the storage of allopathic veterinary medicinal products and antibiotics is permitted on holdings provided that they have been prescribed by a veterinarian in

connection with treatment as referred to in Section 5.6, that they are stored in a supervised location and that they are entered in the farm register.

- 9.4.6 The livestock must be identified permanently using techniques adapted to each species, individually in the case of large mammals and individually or by batch in the case of poultry and small mammals.
- 9.4.7 Livestock records must be compiled in the form of a register and kept available to the inspection authorities at all times at the address of the holding.
- 9.4.8 Such records, which are to provide a full description of the herd or flock management system, must contain the following information:
- By species, as regards livestock arriving at the holding; origin and date of arrival, conversion period, identification mark and veterinary record
 - As regards livestock leaving the holding: age, number of head, weight in case of slaughter, identification mark and destination
 - Details of any animals lost and reasons
 - As regards feed: type, including feed supplements, proportions of various ingredients of rations and periods of access to free-range areas, periods when restrictions apply
 - As regards disease prevention regards feed: type, including feed supplements, proportions of various ingredients of rations and periods of access to free-range areas, periods when restrictions apply and treatment and veterinary care: date of treatment, diagnosis, type of treatment product, method of treatment and practitioners prescription for veterinary care with reasons and withdrawal periods applying before livestock products can be marketed
- 9.4.9 Where a producer manages several livestock holdings in the same region, the units which produce livestock or livestock products not covered by Section 1, will also be subject to the inspection system as regards the first, second and third indents of point 9.4.1 of this Section on livestock and livestock products, and as regards the provisions on livestock management, livestock records and the principles governing storage of animal husbandry products used.

9.5 IRREGULARITIES AND INFRINGEMENTS

- 9.5.1 AsureQuality will take the following action when irregularities and infringements are found:
- (a) Where an irregularity is found in the implementation of Sections 3,4 and 5 or the measures referred to in Section 9, the indications provided for in paragraph 1.2 referring to the organic production method are removed from the entire lot of production run affected by the irregularity concerned
 - (b) Where a manifest infringement, or an infringement with prolonged effects is found, prohibit the operator concerned from marketing products with indications referring to the organic production method for a period to be agreed with AsureQuality

10. RESTRICTED PERMITTED SUBSTANCES FOR THE PRODUCTION OF ORGANIC FOODS

PRECAUTIONS

Any substances used in an organic system for soil fertilisation and conditioning, pest and disease control, for the health of livestock and quality of the animal products, or for preparation, transport, preservation and storage of the food product, should comply with the relevant New Zealand law.

Conditions for use, in organic production, processing, cleaning, packaging and other processes, of certain inputs contained in the lists in Tables 1 to 6 may be specified by NZFSA, onASUREQuality's recommendation, e.g. its use only in case of absolute necessity, volume, frequency of application, specific purpose etc.

Where substances are required for primary production they should be used with care and with the knowledge that even permitted substances may be subject to misuse and may alter the ecosystem of the soil or farm.

10.1 REQUIREMENTS FOR THE INCLUSION OF SUBSTANCES IN SECTION 10

10.1.1 The following criteria will be used for amending Section 10:

- (a) They are consistent with principles of organic production (see Section 1.3)
- (b) Use of the substance is necessary/essential for its intended use
- (c) Use of the substance does not result in, or contribute to harmful effects on the environment
- (d) They have the lowest negative impact on human or animal health and quality of life
- (e) Approved alternatives are not available in sufficient quantity and /or quality
- (f) With regard to minerals and trace elements used in animal nutrition, additional sources for these products may be included in Table 5 provided that they are of natural origin or failing that, synthetic in the same form as natural products

The above criteria are intended to be evaluated as a whole in order to protect the integrity of organic production. In addition, the following criteria should be applied in the evaluation process:

- (a) If they are used for fertilization, soil conditioning purposes:
 - They are essential for obtaining or maintaining the fertility of the soil or to fulfil specific nutrition requirements of crops, or specific soil-conditioning and rotation purposes, which cannot be satisfied by the practices, included in Section 4, or other products included in Section 10, Table 1
 - The ingredients will be plant, animal, microbial, or mineral origin and may undergo the following processes: physical (e.g., mechanical, thermal), enzymatic, microbial
 - Their use does not have harmful impact on soil organisms and/or physical characteristics of the soil
- (b) If they are used for the purpose of plant disease, pest control or weed control:
 - They should be essential for the control of a harmful organism or a particular disease for which other biological, physical, or plant breeding alternatives and/or effective management practices are not available
 - Substances should be plant, animal, microbial, or mineral origin and may undergo the following processes: physical (e.g. mechanical, thermal), enzymatic, microbial (e.g. composting, digestion)

However

- If they are used, in exceptional circumstances, in traps and dispensers such as pheromones, which are chemically synthesized, they will be considered for addition to the lists if the products are not available in sufficient quantities in their natural form, provided that the conditions for their use do not directly or indirectly result in the presence of residues of the product in the edible product

(c) If they are used as additives or processing aids in the preparation or preservation of the food:

- These substances are found in nature and may have undergone mechanical/physical processes (e.g. extraction, precipitation), biological/enzymatic processes and microbial processes (e.g. fermentation)
- If these substances mentioned above are not available from such methods and technologies in sufficient quantities, then those substances that have been chemically synthesized may be considered for inclusion in exceptional circumstances
- They are essential to prepare such products because there are no other available technologies
- The consumer will not be deceived concerning the nature, substance and quality of the food

10.1.2 Proposal for inclusion of products to Section 10

The following should be submitted with any proposal to include substances in Section 10:

- (a) A detailed description of the product and the conditions of its envisaged use
- (b) Any information to demonstrate that the requirements under Section 10.1.1 are satisfied

TABLE 1**SUBSTANCES FOR USE IN SOIL FERTILISING AND CONDITIONING**

Substance	Description, Compositional Requirements, Conditions of Use
AsureQuality approval required before use, refer Section 4.2	
Farmyard manure (manures containing human excrement of faeces and urine is prohibited).	“Factory” farming sources and human excrement is prohibited. Product comprising a mixture of animal excrements and vegetable matter (animal bedding). Indication of animal species.
Liquid animal excrements (Slurry or urine etc) (manures containing human excrement of faeces and urine is prohibited).	Use after controlled fermentation and/or appropriate dilution. “Factory” farming sources and human excrement is prohibited. Indication of animal species.
Composted animal excrements, including poultry manure and composted farmyard manure included.	Indication of animal species. Factory farming sources not permitted.
Dried farmyard manure and dehydrated poultry manure	“Factory” farming sources not permitted. Indication of animal species.
Guano	-
Straw	-
Composts from spent mushroom	The initial composition of the substrate must be limited to products of the present list.
Composts from organic household refuse	Compost of source separated household waste. Only vegetable and animal waste. Produced in a closed and monitored collection system. Maximum concentrations in mg/kg of dry matter: - Cadmium: 0.7 - Copper: 70 - Nickel: 25 - Lead: 45 - Zinc: 200 - Mercury: 0.4 - Chromium (total): 70 - Chromium (VI): 0 (*) (*) limit of determination Only during a period expiring on 31 March 2002 (to be reviewed on implementation of the programme). Need recognised by the TPA
Composts from plant residues	-

Substance	Description, Compositional Requirements, Conditions of Use
AsureQuality approval required before use, refer Section 4.2	
Products or by-products of animal origin as below: - blood meal - hoof meal - horn meal - bone meal or degelatinised bone meal - fish meal - meat meal - feather, hair and “chiquette” meal - wool - fur - hair - dairy products	Derived without chemical treatment other than oil extraction using organic solvent Maximum concentration in mg/kg of dry matter of Chromium (VI: o (*) (*) limit of determination
Products and by-products of plant origin for fertilisers (for instance, oilseed cake meal, cocoa husks, malt culms, etc.)	Derived without chemical treatment other than oil extraction using organic solvent
Seaweeds and seaweed products	As far as directly obtained by: - physical processes including dehydration - freezing and grinding - extraction with water or aqueous acid and /or alkaline solution - fermentation Need recognition by TPA.
Sawdust, bark and wood waste	Wood not chemically treated after felling
Wood ash	-
Natural phosphate rock	Cadmium must not exceed 90mg/kg P ₂ O ₅
Basic slag	Only after residue testing for heavy metals
Rock potash, mined potassium salts (e.g.. Kainite, sylvinite)	Less than 60% chlorine
Sulphate of potash (e.g. patenkali)	Obtained by physical procedures but not enriched by chemical processes to increase its solubility
Calcium carbonate of natural origin (e.g. chalk, marl, maerl, limestone, phosphate chalk)	-
Magnesium rock	-
Calcareous magnesium rock	-
Epsom salt (magnesium-sulphate)	Obtained by physical procedures but not enriched by chemical processes to increase its solubility
Gypsum (calcium sulphate)	From natural sources
Stillage and stillage extract	Ammonium stillage excluded
Sodium chloride	Mined salt or solar salt obtained from seawater by non-synthetic process. Need recognised by the TPA For rules specific to the USA market please refer to point in Appendix One: Supplementary requirements for Organic Operators producing for the USA Market.

Substance	Description, Compositional Requirements, Conditions of Use
AsureQuality approval required before use, refer Section 4.2	
Aluminium calcium phosphate	Cadmium content less than or equal to 90mg/kg of P ₂ O ₅ . Use limited to basic soils (pH > 7.5).
Trace elements (e.g.. boron, copper, iron, manganese, molybdenum, zinc)	-
Sulphur	-
Stone meal	-
Clay (e.g. bentonite, perlite, zeolite)	Not chemically treated
Vermiculture	-
Peat (prohibited for soil conditioning)	Excluding synthetic additives permitted for inclusion in potting mixes. Use limited to horticulture (market gardening, floriculture, arboriculture, nursery). Prohibited for soil conditioning Not chemically treated
Humus from earthworms and insects	-
Zeolites	-
Wood charcoal	-
Chloride of lime	Foliar treatment of apple trees, after identification of deficit of calcium. Need recognized by the TPA.
By-products of industries processing ingredients from organic agriculture	Can only be used after TPA approval and shown to have no adverse affect on the soil

Factory Farming refers to industrial management systems that are heavily reliant on veterinary and feed inputs not permitted in organic farming.

Note: Chilean nitrate and nitrogenous fertilisers including urea are prohibited.

TABLE 2**SUBSTANCES FOR PLANT PEST AND DISEASE CONTROL**

Substance	Description, Compositional Requirements, Conditions of Use
AsureQuality approval required before use, refer Section 4.3	
1. Plant and Animal	
Preparations on basis of pyrethrins extracted from <i>Chrysanthemum cinerariaefolium</i>	Insecticide. The synergist Piperonyl butoxide is prohibited
Bees wax	Pruning agent
Preparations from <i>Quassia amara</i>	Insecticide, repellent
Preparations from <i>Ryania speciosa</i>	-
Preparations of Neem (Azadirachtin) from <i>Azadirachta indica</i>	Insecticide
Propolis	-
Plant oils (e.g. mint oil, pine oil, caraway oil)	Insecticide, acaricide, fungicide and sprout inhibitor (targeted application only for foliage suppressant) Note: targeted application is considered as spot spraying only (e.g. spraying the structure posts of kiwifruit frames where physically/mechanically suppressing the foliage is not possible) and is to be used on established plants only. It does not include band or strip spraying of boundaries, walk ways etc.
Seaweed, seaweed meal, seaweed extracts, sea salts and salty water	Not chemically treated
Gelatine	Insecticide
Lecithin	Fungicide
Hydrolysed Proteins	Attractant (used in traps and dispensers) “Derived without chemical treatment other than oil extraction using organic solvent”.
Natural plants preparations, excluding tobacco	-
2. Mineral	
Inorganic compounds (Bordeaux mixture, copper hydroxide, copper oxychloride)	Maximum of 3kg/ha/year. Fungicide.
Burgundy mixture	-
Lime sulphur (Calcium polysulphide)	Fungicide, insecticide, acaricide. Need recognized by TPA.
Sulphur	Fungicide, insecticide, acaricide. Need recognized by TPA.
Quartz sand	Repellent.
Silicates, clay (Bentonite)	-

Substance	Description, Compositional Requirements, Conditions of Use
AsureQuality approval required before use, refer Section 4.3	
Light mineral oils (paraffin)	Insecticide, fungicide. Only in fruit trees, olive trees, other subtropical fruit crops, (e.g. Kiwifruit, tamarillos, feijoas) and tropical crops (e.g. Bananas).
Potassium permanganate	Fungicide, bactericide. Only in fruit trees, olive trees and vines.
Paraffin oil	Insecticide, acaricide.
3. Micro organisms used for biological pest controls	
Micro-organisms (bacteria, viruses, fungi) e.g.. <i>Bacillus thuringiensis</i> , Granulosis virus etc.	Not genetically modified.
4. Other	
Products for pest and disease control in livestock buildings and installations. Rodenticides and products listed in Section 2.	
Ethylene	Degreening bananas.
5. Traps	
Pheromone preparations	Attractant; sexual behaviour disrupter. Only in traps and dispensers. General conditions: -

TABLE 3**INGREDIENTS OF NON-AGRICULTURAL ORIGIN REFERRED TO IN SECTION 6 OF THIS STANDARD**

Where the substances listed in Tables 3 & 4 can be found in nature, natural sources are preferred. Substances of certified organic origin are preferred.

This section covers the ingredients and processing aids, which may be used in the preparation of food for human consumption, composed essentially of one or more ingredients of plant and/or animal origin.

Notwithstanding reference to any ingredient or processing aid in this section, any processing practice such as smoking, shall be carried out, and any ingredient or such processing aid shall be used only in accordance with relevant New Zealand legislation and, in the absence thereof, in accordance with good manufacturing practice for foodstuffs.

For additional rules specific to the USA market please refer to point 6.3 in of the Supplementary Requirements for Organic Operators Producing for the USA Market.

INS	Name	Specific Conditions
Food additives, including carriers		
170	Calcium carbonates	All authorised functions except colouring
220	Sulphur dioxide	Only for wine. Prohibited for EU & US, however if the wine is destined for these markets then the wine to be exported to the EU or US cannot be labeled as certified organic wine but can instead be labeled as wine made from certified organic grapes.
270	Lactic acid	Fruit and vegetable products
290	Carbon dioxide	-
296	L-malic acid	
300	Ascorbic acid	Ascorbic acid (L-)
331	Sodium citrate	Sausages/pasteurisation of egg whites/ milk products
306	Tocopherols, mixed natural concentrates	Anti-oxidant in fats and oils
322	Lecithin	-
330	Citric acid	-
334	Calcium citrates	
333	Calcium citrates	-
334	Tartaric acid (L (+) -)	Only for wine
335	Sodium tartrate	Prohibited for US
336	Potassium tartrate	-
341i	Mono calcium phosphate	Only for raising flour
400	Alginic acid	-
401	Sodium alginate	-
402	Potassium alginate	-
406	Agar	-
407	Carageenan	-
410	Locust bean gum	-
412	Guar gum	-

INS	Name	Specific Conditions
Food additives, including carriers		
413	Tragacanth gum	Prohibited for US
414	Arabic gum	Only for milk products, fat products, confectionery, sweets, eggs
415	Xanthan gum	Only fat, fruit and vegetable products and cakes and biscuits
440	Pectins (unmodified)	Unmodified
500	Sodium carbonates	-
501	Potassium carbonates	-
503	Ammonium carbonates	Only for cereal products, confectionery, cakes and biscuits
504	Magnesium carbonates	-
509	Calcium chloride	Milk products / meat products
516	Calcium sulphate	For soybean products, confectionery and in bakers' yeast. Carrier
524	Sodium hydroxide	For sugar processing and for the surface treatment of traditional bakery products (Laugengebäck)
938	Argon	-
941	Nitrogen	-
948	Oxygen	-

1. FLAVOURING AGENTS

Substances and products labelled as natural flavouring substances or natural flavouring preparations:

- Organic flavouring extracts (including volatile oils)
- Volatile (essential) oils produced by means of solvents such as oil, water, ethanol, carbon dioxide and mechanical and physical processes
- Natural smoke flavour
- Natural flavouring preparations are only to be approved based on the criteria in Section 10

2. WATER AND SALT

Potable drinking water

Salt (with sodium chloride or potassium chloride as basic components), generally used in food processing.

3. PREPARATIONS OF MICRO-ORGANISMS AND ENZYMES FOR USE IN FOOD PROCESSING

These may be used as ingredient or processing aids with approval based on the criteria in Section 10:

- Organic certified micro-organisms
- Any preparations of micro-organisms normally used in food processing, with the exception of genetically modified organisms.
- Enzymes and enzyme preparations

4. MINERALS (TRACE ELEMENTS INCLUDED), VITAMINS, AMINO ACIDS AND OTHER NITROGEN COMPOUNDS.

Minerals (trace elements included), vitamins, amino acids and other nitrogen compounds, only authorised as far as their use is legally required in the foodstuffs in which they are incorporated.

TABLE 4**PROCESSING AIDS WHICH MAY BE USED FOR THE PREPARATION OF PRODUCTS OF AGRICULTURAL ORIGIN REFERRED TO IN SECTION 3 OF THIS STANDARD**

INS	Name	Specific Conditions
170	Calcium carbonate	
184	Tannic acid	Filtration aid for wine. Prohibited for US
270	Lactic acid	Milk product: coagulation agent, pH regulation of salt bath for cheeses
290	Carbon dioxide	
330	Citric acid	Oil production and hydrolysis of starch
500	Sodium carbonates	Sugar production, anti-caking agent, milk products: neutralising substance.
501	Potassium carbonates	
509	Calcium chloride	Coagulation agent
511	Magnesium chloride (nigari)	Only for soybean products Coagulation agent
513	Sulphuric acid	PH adjustment of water during sugar processing Prohibited for US
516	Calcium sulphate	Coagulation agent For soybean products, confectionery and in bakers' yeast
524	Sodium hydroxide	Sugar production Oil production from rape seed (<i>Brassica spp</i>)
526	Calcium hydroxide	Food additive for maize tortilla flour. Processing aid for sugar
551	Silicon dioxide (amorphous)	For wine, fruit and vegetable processing As a gel or colloidal solution
553	Talc	Prohibited for US
901	Beeswax	Releasing agent
903	Carnauba wax	Releasing agent
938	Argon	Prohibited for US
941	Nitrogen	
948	Oxygen	
	Activated carbon	Prohibited for US
	Water	
	Bentonite	Only for fruit and vegetable products
	Casein	Only for wine. Prohibited for US
	Diatomaceous earth	Only for sweeteners and wine
	Egg white albumen	Only for wine. Prohibited for US
	Ethanol	Solvent, Prohibited for US
	Gelatin	Only for wine, fruit and vegetable
	Isinglass	Only for wine. Prohibited for US
	Kaolin	
	Perlite	

TABLE 5
FEED ADDITIVES, CERTAIN SUBSTANCES USED IN ANIMAL NUTRITION AND PROCESSING AIDS USED IN FEEDING STUFFS

1.1 Trace elements. The following substances are included in this category:

- E1 Iron:
ferrous(II) carbonate
ferrous(II) sulphate monohydrate and/or heptahydrate
ferric (III) oxide
- E2 Iodine:
calcium iodate, anhydrous
calcium iodate, hexahydrate
potassium iodide
sodium iodide
- E3 Cobalt:
cobaltous (II) sulphate monohydrate and/or heptahydrate
basic cobaltous (II) carbonate, monohydrate
- E4 Copper:
Copper (II) oxide
basic copper (II) carbonate, monohydrate
copper (II) sulphate, pentahydrate
- E5 Manganese:
Manganese (II) carbonate
manganous oxide and manganic oxide
manganous (II) sulfate, mono- and/or tetrahydrate
- E6 Zinc:
zinc carbonate
zinc oxide
zinc sulphate mono- and/or hepta-hydrate
- E7 Molybdenum:
ammonium molybdate, natrium molybdate
- E8 Selenium:
sodium selenate
sodium selenite
- E9 Organic Acids

1.2 Vitamins, provitamins and chemically well-defined substances having a similar effect

The following substances are included in this category. Vitamins approved for use in this category:

Vitamins approved for use under NZ legislation:

- Preferably derived from raw materials occurring naturally in feedingstuffs, or synthetic vitamins identical to natural vitamins only for monogastric animals

1.3 Enzymes

- Enzymes authorised under NZ legislation

1.4 Micro-organisms

- Authorised under NZ legislation

1.5 Preservatives The following are included in this category:

E236 Formic acid only for silage
E260 Acetic acid only for silage
E270 Lactic acid only for silage
E280 Propionic acid only for silage

1.6 Binders, anti-caking agents and coagulants. The following substances are included in this category:

E551b Colloidal silica
E551c Kieselgur
E553 Sepiolite
E558 Bentonite
E559 Kaolinic Clays
E561 Verniculite
E599 Perlite

1.7 Processing aids used in feedstuffs

Processing aids for silage. The following substances are included in this category:

- Sea salt, coarse rock salt, enzymes, yeasts, whey, sugar beet pulp, cereal flour, molasses and lactic, acetic, formic, and propionic bacteria.

When weather conditions do not allow for adequate fermentation,ASUREQuality may authorise the use of lactic, formic, propionic and acetic acids in the production of silage.

1.8 With regard to minerals and trace elements used in animal nutrition, additional sources for these products may be included in this Section provided that they are of natural origin or failing that, synthetic in the same form as natural products.

1.9 Antioxidant substances

Tocopherol-rich extracts of natural origin (E306)

TABLE 6

PRODUCTS AUTHORISED FOR CLEANING AND DISINFECTION OF LIVESTOCK BUILDINGS AND INSTALLATIONS (E.G. EQUIPMENT AND UTENSILS). THESE PRODUCTS CANNOT BE USED TO CLEAN FRESH AND PROCESSED PRODUCTS

Product
Potassium and sodium soap
Water and steam
Calcium Hydroxide (Milk of lime/slaked lime)
Lime
Calcium Oxide (Quicklime)
Sodium hypochlorite (e.g. as liquid bleach)
Chlorine Dioxide.
Caustic potash
Sodium hydroxide (Caustic soda)
Hydrogen peroxide
Natural essences of plants
Citric, peracetic acid, formic, lactic, oxalic and acetic acid
Alcohol (ethanol/isopropanol)
Phosphoric acid (only for dairy equipment)
Cleaning and disinfection products for teats and milking facilities
Sodium carbonate

TABLE 7**FEED MATERIALS****1. Feed materials from plant origin**

- 1.1 Cereals, grains, their products and by-products. The following substances are included in this category:
Oats as grains, flakes, middlings, hulls and bran: barley as grains, protein and middlings: rice as grains, rice broken, bran, and germ expeller: millet as grains: rye as grains, middlings, feed and bran: sorghum as grains: wheat as grains, middlings, bran, gluten feed, gluten and germ: spelt as grains: triticale as grains: maize as grains, bran, middlings, bran, germ expeller and gluten: malt culms: brewers grains.
- 1.2 Oil seeds, oil fruits, their products and by-products.
The following substances are included in this category:
Rape seed, expeller, and hulls: soya bean as bean, toasted expeller and hulls: sunflower seed as seed and expeller: cotton as seed and seed expeller: linseed as seed and expeller: sesame seed as seed and expeller: palm kernels as expeller, turnip rape seed as expeller and hulls: pumpkin seed as expeller: olive pulp (from physical extraction of olives), copra (coconut extract).
- 1.3 Legume seeds, their product and by-product. The following substances are included in this category:
Chickpeas as seeds: ervil as seeds: chickling vetch as seeds submitted to an appropriate heat treatment: peas as seeds, middlings and bran: broad beans as seeds, middlings and bran: horse beans as seeds, vetches as seeds and lupin as seeds.
- 1.4 Tuber roots, their products and by-products. The following substances are included in this category:
Sugar beet pulp, dried beet, potato, sweet potato as tuber, manioc as roots, potato pulp (by-product of the extraction of potato starch), potato starch, potato protein and tapioca.
- 1.5 Other seeds and fruits, their products and by-products. The following substances are included in this category:
Carob pods, citrus pulp, apple pomace, tomato pulp, and grape pulp.
- 1.6 Forages and roughages. The following substances are included in this category:
Lucerne, lucerne meal, clover, clover meal, grass (obtained from forage plants), grass meal, hay, silage, straw of cereals, and root vegetables for foraging.
- 1.7 Other plants, their products and by-products. The following are included in this category:
Molasses as a binding agent in compound feeding stuffs, seaweed meal (obtained by drying and crushing seaweed and washed to reduce iodine content), powders and extracts of plants, plant protein extracts (solely provided to young animals), spices and herbs.

2. Feed materials from animal origin

- 2.1 Milk and milk products. The following substances are included in this category:
Raw milks, milk powder, skimmed milk, skimmed-milk powder, buttermilk, buttermilk powder, whey, whey powder, whey powder low in sugar, whey protein powder (extracted by physical treatment), casein powder and lactose powder.

- 2.2 Fish, other marine animals, their products and by-products. The following substances are included in this category:
 Fish, fish oil and cod-liver oil not refined: Fish molluscan or crustacean autolysates, hydrolysate and proteolysates obtained by an enzyme action, whether or not in soluble form, solely provided to young animals. Fish meal + natural oxidant.
- 2.3 Blood and bone products, and uncontaminated meat (can only be used for feeds for species which are non-ruminant and omnivorous) Products shall not be from the same species as being fed. Products shall be guaranteed free from possible contaminants. NB if exporting check importing country standards.

3. Feed materials from mineral origin

The following substances are included in this category:

- Sodium: unrefined sea salt
 coarse rock salt
 sodium sulphate
 sodium carbonate
 sodium bicarbonate
 sodium chloride
- Calcium: lithotamnum and maerl
 shells of aquatic animals (including cuttlefish bones)
 calcium carbonate
 calcium lactate
 calcium gluconate
- Phosphorus: bone dicalcium phosphate precipitate
 defluorinated dicalcium phosphate
 defluorinated monocalcium phosphate
- Magnesium: Magnesium oxide (anhydrous magnesia)
 magnesium sulphate
 magnesium chloride
 magnesium carbonate
- Sulphur: sodium sulphate

4. The following substances are prohibited in the diet

- Farm animal by-products (e.g. abattoir waste) to ruminants
 All types of excrement including droppings, dung and other manure (all types of excrements)
 Feed subject to solvent extraction e.g. hexane) or the addition of other chemical agents
 Amino-acid isolates
 Urea and other synthetic promoters or stimulants
 Synthetic appetizers
 Preservatives, except when used as processing aids
 Artificial colouring agents.

TABLE 8**MAXIMUM NUMBER OF ANIMALS PER HECTARE**

Maximum number of animals per ha Class or species	Maximum number of animals per ha equivalent to 170kg N/ha/year *
Equines over six months old	2
Calves for fattening	5
Other bovine animals less than one year old	5
Male bovine animals from 1 to less than 2 years old	3.3
Female bovine animals from 1 to less than 2 years	3.3
Male bovine animals two years old or over	2
Breeding heifers	2.5
Heifers for fattening	2.5
Dairy cows	2
Cull dairy cows	2
Other cows	2.5
Female breeding rabbits	100
Ewes	13.3
Goats	13.3
Piglets	74
Breeding sows	6.5
Pigs for fattening	14
Other pigs	14
Table chickens	580
Laying hens	230

* More animals per hectare can be carried if the producer can show that less than 170 Kg N/ha/year is being produced.

Note: The stocking rates in this table only apply to units where the spreading of animal manure from animals that are housed on, to pasture is undertaken.

TABLE 9

MINIMUM SURFACE AREAS INDOORS AND OUTDOORS AND OTHER CHARACTERISTICS OF HOUSING IN THE DIFFERENT SPECIES AND TYPES OF PRODUCTION

	Indoors area (net area available to animals)		Outdoor area (Exercise area, excluding pasturage)
	Live weight minimum (kg)	M2/head	M2/head
Breeding and fattening bovine and equidae	up to 100 up to 200 up to 350 over 350	1.5 2.5 4.0 5 with minimum of 1m2/ 100kg	1.1 1.9 3 3.7 with minimum of 0.75m2/100kg
Dairy cows		6	4.5
Bulls for breeding		10	30
Sheep and goats		1.5 sheep/goat 0.35 lamb/kid	2.5 2.5 with 0.5 per lamb/kid
Farrowing sows with piglets up to 40 days		7.5 sow	2.5
Fattening pigs	up to 50 up to 85 up to 110	0.8 1.1 1.3	0.6 0.8 1
Piglets	over 40 days and up to 30kg	0.6	0.4
Brood pigs		2.5 female 6.0 male	1.9 8.0

	Indoors area (net area available to animals)			Outdoors area (m2 of area available in rotation/head)
	No/animals/ m2	cm perch/ animal	Nest	
Laying hens	6	18	8 Laying hens per nest or in case of common nest 120 cm2/bird	4 provided that the limit of 170kg of N/ha/year is not exceeded
Fattening poultry (in fixed housing)	10 with a maximum of 21 kg liveweight/m2	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 170kg of N/ha/year is not exceeded
Fattening poultry in mobile housing	16 * in mobile poultry houses with a maximum of 30 kg liveweight/m2			2.5, provided that the limit of 170 kg of N/ha/year is not exceeded

(*) Only in the case of mobile houses not exceeding 150m² floor space, which remains open at night.

SUPPLEMENTARY REQUIREMENTS FOR ORGANIC OPERATORS PRODUCING FOR THE USA MARKET

1.0 GENERAL REQUIREMENTS TO BE MET PRIOR TO SEEKING OFFICIAL ORGANIC ASSURANCES

1.1 Conversion period for land associated with organic livestock and plant production

Cross references:

USDA NOP: § 205.202 Land requirements

NZFSA Technical Rules for Organic Production:

- Section 4, point 4.1
- Section 5, point 5.1
- Section 6, point 6.2

Any field or farm parcel from which harvested crops are intended to be sold, labelled, or represented as “organic,” must:

- (a) Have been managed in accordance with the provisions of Sections 4 and 5 and 6 of NZFSA Technical Rules
- (b) Have had no prohibited substances applied to it for a period of 3 years immediately preceding harvest of the crop
- (c) Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management

Interpretative note:

Extracted from the Frequently Asked Question answer on Buffer Zones: [Source AMS website www.ams.usda.gov/nop/].

The US national standards do not specify specific dimensions for buffer zones, but leaves the determination of their size to the organic producer and the certifying agent on a case-by-case basis.

In the US it has always been the responsibility of organic operations to manage potential contact of organic products with other substances not approved for use in organic production systems. The organic system plan must outline steps that an organic operation will take to avoid drift from neighbouring operations, particularly drift of synthetic chemical pesticides.

While the US national organic standards provide significant discretion in establishing buffer zone dimensions, buffer zones should not be sized at distances, which attempt to achieve a zero tolerance for prohibited substances. The intent of the regulations in the US are to foster a collaborative effort between the certifying agents and their grower clients to determine an appropriate buffer zone with each party being fully cognisant of the process-based nature of the organic label claim.

1.2 Soil fertility and crop nutrient management practice

Cross references:

USDA NOP: § 205.203 Soil fertility and crop nutrient management practice standard

NZFSA Technical Rules for organic production:

- Section 5, point 5.2-5.3
- Section 6, point 6.1.3, 6.7.2
- Section 8, point 8.9
- Table 1

The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances. Animal and plant materials include:

- (1) Raw animal manure, which must be composted unless it is:
 - (i) Applied to land used for a crop not intended for human consumption
 - (ii) Incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil surface or soil particles
 - (iii) Incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil surface or soil particles
- (2) Composted plant and animal materials produced through a process that:
 - (i) Established an initial C:N ratio of between 25:1 and 40:1
 - (ii) Maintained a temperature of between 131F and 170F for 3 days using an in-vessel or static aerated pile system
 - (iii) Maintained a temperature of between 131F and 170F for 15 days using a window composting system, during which period, the materials must be turned a minimum of five times
- (3) Uncomposted plant materials. The producer must not use sewage sludge (biosolids)

1.3 Treated lumber

Cross references:

US Reference: § 205.206 Crop pest, weed, and disease management practice standard.

NZFSA Technical Rules for Organic Production:

- Section 6, point 6.6
- Section 5, point 5.9
- Section 7, point 7.8.1

The producer must not use lumber treated with arsenate or other prohibited materials for new installations or replacement purposes in contact with soil or livestock.

This means:

Treated lumber is prohibited from direct contact with organically produced and handled crops and livestock. This prohibition does not include uses such as lumber for fence posts or building materials that are isolated from production. The prohibition applies to lumber used in crop production, such as frames of a planting bed, and for raising livestock such as the boards used to build a farrowing house.

Treated lumber is prohibited for use in:

- Wooden structures used to support crops
- Wooden frames for planting beds

- Livestock housing
- Enclosures used in intensive livestock production

The prohibition does not apply to:

- Fencing used to manage stock in extensive livestock production systems.

(Ref. Email correspondence from Keith Jones, USDA- “Organic Enquiries” (08/05/03))

1.4 Residue levels

Cross references:

USDA NOP: § 205.671 Exclusion from organic sale
 NZFSA/ Standard OP2, Section 7.0

When residue testing detects prohibited substances at levels that are greater than 5 percent of the NZFSA’s tolerance for the specific residue detected or unavoidable residual environmental contamination, the agricultural product must not be sold, labelled, or represented as organically produced. The Third Party Agency or NZFSA may conduct an investigation of the certified operation to determine the cause of the prohibited substance.

2.0 LIVESTOCK

2.1 Origin of livestock

Cross reference:

USDA NOP: 205.236 Origin of livestock
 NZFSA Technical Rules for Organic Production:

- Section 6, point 6.2.3, 6.3.1-6.3.14

- (a) Livestock products that are to be sold, labelled, or represented as organic must be from livestock under continuous organic management from the last third of gestation or hatching: Except, that:

Poultry: Poultry or edible poultry products must be from poultry that has been under continuous organic management beginning no later than the second day of life;

Dairy animals: Milk or milk products must be from animals that have been under continuous organic management (fully certified property) beginning no later than 1 year prior to the production of the milk or milk products that are to be sold, labelled, or represented as organic, Except, that, crops and forage from land included in the organic system plan of a dairy farm that is in the third year (C2) of organic management may be consumed by the dairy animals of the farm during the 12 month period immediately prior to the sale of organic milk and milk products.

Once an entire, distinct herd has been converted to full organic production, all dairy animals shall be under organic management from the last third of gestation.

Any organic animal that leaves a certified operation it loses its organic status when it enters a non-certified operation.

This Means: “All dairy animals that are being raised as organic must be managed in compliance with the USNOS (fully certified property) for a period of 12 months before milk or milk products from these animals will meet the requirements for export to the US. The exception to this rule is when the entire distinct herd of dairy animals is converted to organic the cows can be fed C₂ crops or pasture during the 12 month period prior to full organic.

Breeder stock: Livestock used as breeder stock may be brought from a nonorganic operation onto an organic operation at any time: Provided, that, if such livestock are gestating and the offspring are to be raised as organic livestock, the breeder stock must be brought onto the facility no later than the last third of gestation.

(b) The following are prohibited:

Livestock or edible livestock products that are removed from an organic operation and subsequently managed on a nonorganic operation may be not sold, labelled, or represented as organically produced.

Breeder or dairy stock that has not been under continuous organic management since the last third of gestation may not be sold, labelled, or represented as organic slaughter stock.

(c) The producer of an organic livestock operation must maintain records sufficient to preserve the identity of all organically managed animals and edible and nonedible animal products produced on the operation.

2.2 Livestock feed

Cross references:

USDA NOP: 205.237 LIVESTOCK FEED

NZFSA Technical Rules for Organic Production:

- Section 6, point 6.4.1-6.4.18

The producer of an organic livestock operation must provide livestock with a total feed ration composed of agricultural products, including pasture and forage, that are organically produced and, if applicable, organically handled: Except, that, nonsynthetic substances and synthetic substances allowed under point 6.2 of this Appendix may be used as feed additives and supplements.

The producer of an organic production must not:

- Use animal drugs, including hormones, to promote growth
- Provide feed supplements or additives in amounts above those needed for adequate nutrition and health maintenance for the species at its specific stage of life
- Feed plastic pellets for roughage
- Feed formulas containing urea or manure
- Feed mammalian or poultry slaughter by-products to mammals or poultry
- Use feed, feed additives, and feed supplements in violation of New Zealand legislation [ACVM Act, PAR system, professional conduct (NZVA)]

2.3 Livestock health care practice standard

Cross references:

USDA NOP: 205.238 Livestock health care practice standard

NZFS Technical Rules for Organic Production:

- Section 6, point 6.5.4-6.5.10

- (a) Only medicines listed by the United States that are permitted under NZ law may be used.
- (b) When preventive practices and veterinary biologics are inadequate to prevent sickness, a producer may administer synthetic medications: Provided, that, such medications are allowed under point 2.4 in this Appendix. Parasiticides allowed under point 2.4 may be used on:

Breeder stock, when used prior to the last third of gestation but not during lactation for progeny that are to be sold, labelled, or represented as organically produced; and

Dairy stock, when used a minimum of 90 days prior to the production of milk or milk products that are to be sold, labelled, or represented as organic.

- (c) The producer of an organic livestock operation must not:

Sell, label, or represent as organic any animal or edible product derived from any animal treated with antibiotics, any substance that contains a synthetic substance not allowed under point 6.2 of this Appendix, or any substance that contains strychnine, a prohibited non-synthetic substance.

This Means:

- (a) For livestock (excluding dairy animals for milk production):

If an organic animal is treated with antibiotics, the animal and its products following treatment must not be sold, labelled, or represented as organic

- (b) For dairy animals for milk production:

A conventional dairy animal treated with antibiotics can be converted to organic by being under continuous organic management for 1 year prior to milk and milk products from the animal being sold as organic

Once a dairy animal is converted to organic, if it is treated with antibiotics (subsequent to gaining organic status) it loses its organic status for ever (Rules: 205.236 (2) (iii), 205.238 (C) (1)

Administer any animal drug, other than vaccinations, in the absence of illness

Administer hormones for growth promotion

Administer synthetic parasiticides on a routine basis

Administer synthetic parasiticides to slaughter stock

Administer animal drugs in violation of NZ legislation [ACVM Act, PAR system, professional conduct (NZVA)]

Withhold medical treatment from a sick animal in an effort to preserve its organic status. All appropriate medications must be used to restore an animal to health when methods acceptable to organic production fail. Livestock treated with a prohibited substance must be clearly identified and shall not be sold, labelled, or represented as organically produced

3.0 PEST MANAGEMENT

3.1 Requirements for facility pest management

Cross references:

US NOP: § 205.271 Facility pest management practice

NZFSA Technical Rules for Organic Production:

- Section 5, point 5.6
- Section 6, point 6.6
- Table 2, Pesticides

- (a) The producer or handler of an organic facility must use management practices to prevent pests, including but not limited to:
- (1) Removal of pest habitat, food sources, and breeding areas
 - (2) Prevention of access to handling facilities
 - (3) Management of environmental factors, such as temperature, light, humidity, atmosphere, and air circulation, to prevent pest reproduction
- (b) Pests may be controlled through:
- (1) Mechanical or physical controls including but not limited to traps, light, or sound
 - (2) Lures and repellents using non-synthetic or synthetic substances consistent with the National List (i.e. NZFSA Technical Rules for Organic Production, Table 2)
- (c) If the practices provided for in paragraphs (a) and (b) of this section are not effective to prevent or control pests, a non-synthetic or synthetic substance consistent with the National List (i.e. NZFSA Technical Rules for Organic Production, Table 2) may be applied.
- (d) If the practices provided for in paragraphs (a), (b), and (c) of this section are not effective to prevent or control facility pests, a synthetic substance not on the National List (i.e. NZFSA Technical Rules for Organic Production, Table 2) may be applied. Provided, that, the handler and certifying agent agree on the substance, method of application, and measures to be taken to prevent contact of the organically produced products or ingredients with the substance used.
- (e) The handler of an organic handling operation who applies a nonsynthetic or synthetic substance to prevent or control pests must update the operation's organic handling plan to reflect the use of such substances and methods of application. The updated organic plan must include a list of all

measures taken to prevent contact of the organically produced products or ingredients with the substance used.

- (f) Notwithstanding the practices provided for in paragraphs (a), (b), (c), and (d) of this section, a handler may otherwise use substances to prevent or control pests as required by NZ legislation. Provided, That, measures are taken to prevent contact of the organically produced products or ingredients with the substance used.

3.2 Measures to be taken following the application of non-approved pest control substances

Cross references:

USDA NOP: § 205.672 Emergency pest or disease treatment

NZFSA Technical Rules for Organic Production:

- Section 6, point 6.5.7(b)

When a prohibited substance is applied to a certified operation due to a National emergency pest or disease treatment program and the certified operation otherwise meets the requirements of this part, the certification status of the operation shall not be affected as a result of the application of the prohibited substance: Provided, that:

- (a) Any harvested crop or plant part to be harvested that has contact with a prohibited substance applied as the result of a National emergency pest or disease treatment program cannot be sold, labelled, or represented as organically produced
- (b) Any livestock that are treated with a prohibited substance applied as the result of a National emergency pest or disease treatment program or product derived from such treated livestock cannot be sold, labelled, or represented as organically produced: Except, That:
- (1) Milk or milk products may be sold, labelled, or represented as organically produced beginning 12 months following the last date that the dairy animal was treated with the prohibited substance
 - (2) The offspring of gestating mammalian breeder stock treated with a prohibited substance may be considered organic: Provided, that, the breeder stock was not in the last third of gestation on the date that the breeder stock was treated with the prohibited substance

4.0 PROHIBITED SUBSTANCES

Cross references:

USDA NOP: § 205.400 General requirements for certification

NZFSA Technical Rules for Organic Production: Not covered

Immediately notify the Third Party Agency concerning any application, including drift, of a prohibited substance to any field, production unit, site, facility, livestock, or product that is part of an operation.

5.0 PACKAGING AND LABELLING

Cross references:

USDA NOP: § 205.272 Commingling and contact with prohibited substance prevention practice standard

NZFSA Technical Rules for Organic Production:

- Section 8 C, points 8.14-8.16

5.1 Packaging

- (a) The handler of an organic handling operation must implement measures necessary to prevent the commingling of organic and nonorganic products and protect organic products from contact with prohibited substances
- (b) The following are prohibited for use in the handling of any organically produced agricultural product or ingredient labelled in accordance with the Labelling, product composition section of this part:
 - (1) Packaging materials, and storage containers, or bins that contain a synthetic fungicide, preservative, or fumigant
 - (2) The use or reuse of any bag or container that has been in contact with any substance in such a manner as to compromise the organic integrity of any organically produced product or ingredient placed in those containers, unless such reusable bag or container has been thoroughly cleaned and poses no risk of contact of the organically produced product or ingredient with the substance used

5.2 Labelling

The term, “organic”

Cross references:

USDA NOP: § 205.300 Use of the term, “organic.”

NZFSA Technical Rules for Organic Production:

- Section 10, point 10.2

The term, “organic,” may not be used in a product name to modify a nonorganic ingredient in the product.

Calculation of % organic. Products sold, labelled, or represented as “organic”.

Cross references:

USDA NOP: § 205.301 Product composition

NZFSA Technical Rules for Organic Production:

- Section 10, point 10.4-10.5

Interpretative note:

Both NZ and US require at least 95% organic ingredients in ‘organic’ products. However, under the US standard, at least 95% of the total ingredients must be organic; under NZ, at least 95% of the ingredients of agricultural origin must be organic. That is, non-agricultural ingredients are not included in the NZ calculation, whereas they are included in the calculation under US. The NZ method of calculation can result in products with less than 95% of the total ingredients being labelled ‘organic’.

Similarly, both NZ and US require at least 70% organic ingredients in ‘made with organic ingredient’ products. However, under US, at least 70% of the total ingredients must be organic (refer below); under NZ, at least 70% of the ingredients of agricultural origin must be organic. Non-agricultural ingredients are not included in the NZ calculation, whereas they are included under US. The NZ method of calculation can result in products with less than 70% of the total ingredients being labelled ‘made with organic ingredients’.

5.3 Limits on listing organic ingredients

Cross references:

USDA NOP: § 205.304 Packaged products labelled “made with organic (specified ingredients or food group(s)).”

NZFS Technical Rules for Organic Production:

- Section 10, 10.4-10.5

Agricultural products in packages labelled “made with organic (specified ingredients of food group(s)) may display on the principal display panel, information panel, and any other panel and on any labelling or market information concerning the product:

(1) The statement:

- (i) “Made with organic (specified ingredients)”: Provided, that, the statement does not list more than three organically produced ingredients
- (ii) “Made with organic (specified food groups)”: Provided, that, the statement does not list more than three of the following food groups: beans, fish, fruits, grains, herbs, meats, nuts, oils, poultry, seeds, spices, sweeteners, and vegetables or processed milk products

6.0 LISTING ALLOWED AND PROHIBITED INPUTS

Cross references:

USDA NOP: § 205.600 Evaluation criteria for allowed and prohibited substances, methods, and ingredients.

NZFS Technical Rules for Organic Production:

- Section 9, Inputs used in Organic Production

The following criteria will be utilised in the evaluation of substances or ingredients for the organic production and handling sections of the National List (i.e. NZFS Technical Rules for Organic Production, Tables 1-6):

- (a) Synthetic and non-synthetic substances considered for inclusion on or deletion from the National List (i.e. NZFS Technical Rules for Organic Production, Tables 1-6) of allowed and prohibited substances will be evaluated using the criteria specified in Section 9 of the NZFS Technical Rules
- (b) In addition to point (a) above, any synthetic substance used as a processing aid or adjuvant will be evaluated against the following criteria:
 - (1) The substance cannot be produced from a natural source and there are no organic substitutes
 - (2) The substance’s manufacture, use, and disposal do not have adverse effects on the environment and are done in a manner compatible with organic handling
 - (3) The nutritional quality of the food is maintained when the substance is used, and the substance, itself, or its breakdown products do not have an adverse effect on human health as defined by applicable New Zealand regulations

- (4) The substance's primary use is not as a preservative or to recreate or improve flavours, colours, textures, or nutritive value lost during processing, except where the replacement of nutrients is required by law
- (5) The substance is listed as generally recognised as safe (GRAS) by the NZFSA when used in accordance with NZFSA's good manufacturing practices (GMP) and contains no residues of heavy metals or other contaminants in excess of tolerances set by NZFSA
- (6) The substance is essential for the handling of organically produced agricultural products
- (c) Nonsynthetics used in organic processing will be evaluated using the criteria specified in Section 9 of the NZFSA Technical Rules

6.1 Crop Inputs

Synthetic substances allowed for use in organic crop production for the US.

The following substances in this section are allowed for use on organic crop products for export to the USA only. They are prohibited for use on organic crop products for export to the EU, unless specifically listed in tables or Sections as per cross references below.

Cross references:

USDA NOP; 205.601 Synthetic substances allowed for use in organic crop production

In accordance with the restrictions specified in this section, the following synthetic substances may be used in organic crop production: Provided, that use of the substances do not contribute to contamination of crops, soil, or water. Substances allowed by this section, except disinfectants and sanitizers in paragraph (a) and those substances in paragraph (c), (j), (k), and (l) of this section, may only be used when the provisions set forth in 205.206 9a) and through (d) prove insufficient to prevent or control the target pest:

(a) *As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 5 Cleaning Aids and Disinfectants Section 4.1
- Alcohols
- Ethanol
- Isopropanol
- Chlorine materials - Except, That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act
- Calcium hypochlorite
- Chlorine dioxide
- Ozone gas - for use as an irrigation system cleaner only
- Peracetic acid - for use in disinfecting equipment, seed, and asexually propagated planting material

Soap-based algicide/demossers

(b) *as herbicides, weed barriers, as applicable*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 2 Pesticides
- Section 5.6
- Herbicides, soap-based - for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) and ornamental crops.
- Mulches
- Newspaper or other recycled paper, with out glossy or coloured inks
- Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC))

(c) *As compost feedstock*

Cross references:

NZFSA Technical Rules for Organic Production:

Table 1 Fertiliser and soil Conditioners

- Section 4.1

Newspapers or other recycled paper, with out glossy or coloured inks

(d) *As animal repellents*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 2 Pesticides
- Section 5.6

Soaps, ammonium- for use as a large animal repellent only, no contact with soil or edible portion of crop.

(e) *As insecticides (including acaricides or mite control)*

NZFSA Technical Rules for Organic Production:

- Table 2 Pesticides
- Section 5.6

- Ammonium carbonate – for use as bait in insect traps only, no direct contact with crop or soil.
- Boric acid-structural pest control, no direct contact with organic food or crops
- Elemental sulphur
- Soaps, insecticidal
- Ferric phosphate – for use as a molluscicide to bait slugs and snails

(f) *As rodenticides*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 2 Pesticides
- Section 5.7

- Sulfur dioxide-underground rodent control only (smoke bombs)
- Vitamin D3

(g) *As plant disease control*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 2 Pesticides
- Section 5.7

- Coppers, fixed-copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, provided, that copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides
- Copper sulphate- substances must be used in a manner that minimizes accumulation of copper in the soil
- Hydrated lime
- Hydrogen peroxide
- Peracetic acid-for use to control fire blight bacteria
- Potassium bicarbonate
- Streptomycin, for fire blight control in apples and pears only
- Tetracycline (oxytetracycline calcium complex), for fire blight control only.

Clarification on the use of conventional grafting waxes containing petroleum jelly and prohibited fungicides.

With regards to the use of grafting wax containing petroleum jelly and prohibited fungicides, according to NZFSA the plants treated with a prohibited substance will lose organic status. These plants will have to undergo a 12 month conversion period before products taken can be exported to the US (- rule 205.204 (a) of the US NOS), and a 36 month conversion period before products taken can be exported to the EU (Section 5.1 of the NZFSA Tech Rules). The trees as well as the land would lose organic status if grafting wax is used. There is however the opportunity to explore the use of only petroleum jelly (without fungicides) to assist grafting

(j) *As plant or soil amendments*

NZFSA Technical Rules for Organic Production:

- Table 1 Fertilisers and soil Conditioners
- Section 5.3

- Aquatic plant extracts (other than hydrolyzed) – Extraction process is limited to the use of potassium hydroxide or sodium hydroxide: solvent amount used is limited to that amount necessary for extraction
- Calcium chloride- only for use as a brine sourced foliar spray to treat a physiological disorder associated with calcium uptake
- Humic acids- naturally occurring deposits, water and alkali extracts only
- Lignin sulfonate- chelating agent, dust suppressant, floatation agent
- Magnesium sulphate – allowed with a documented soil deficiency
- Micronutrients – not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. Soil deficiency must be documented by testing
- Soluble boron products

- Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt
- Liquid fish products – can be pH adjusted with sulphuric acid or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5
- Sodium nitrate - Use must be restricted to 20% of the crops total nitrogen requirement
- Vitamins, B1, C and E

(k) *As plant growth regulators*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 1 Pesticides
- Section 5.3
- Ethylene gas-for regulation of pineapple flowering
- As floating agent in postharvest handling

Cross references:

NZFSA Technical Rules for Organic Production:

- Not covered
- Lignin sulfonate
- Sodium silicate- for tree fruit and fiber processing

As synthetic inert ingredients as classified by the Environment Protection Agency (EPA), for the use with non-synthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances

Cross references:

NZFSA Technical Rules for Organic Production:

- Not covered
- EPA List 4-inerts of Minimal Concern
- EPA List 3- Inerts of unknown toxicity- for use in passive pheromone dispensers

Both are limited to synthetic inert ingredients as classified by NZFSA-ACVM/ERMA, for use with non-synthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

6.2 Livestock Inputs

Cross references:

Synthetic substances allowed for use in organic livestock production

The following substances in this section are allowed for use on livestock products for export to the USA only. They are prohibited for use on livestock products for export to the EU, unless specifically listed in tables or Sections as per cross references below

Cross references:

USDA NOP: 205.603 Synthetic substances allowed for use in organic livestock production

In accordance with restrictions specified in this section the following synthetic substances may be used in organic livestock production:

(a) *As disinfectants, sanitisers, and medical treatments as applicable*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 5 Cleaning Aids and Disinfectants
- Section 6.5.5 – 6.5.10

- (1) Alcohols
 - (i) Ethanol – disinfectant and sanitiser only, prohibited as a feed additive
 - (ii) Isopropanol – disinfectant only
- (2) Aspirin – approved for health care use to reduce inflammation
- (3) Chlorine materials – disinfecting and sanitising facilities and equipment. Residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Drinking Water Standards for New Zealand 2000.
 - (i) Calcium hypochlorite
 - (ii) Chlorine dioxide
 - (iii) Sodium hypochlorite
- (4) Chlorohexidine – Allowed for surgical procedures conducted by a veterinarian. Allowed for use as a teat dip when alternative germicidal agents and/or physical barriers have lost their effectiveness.
- (5) Electrolytes – without antibiotics
- (6) Glucose
- (7) Glycerin – Allowed as a livestock teat dip, must be produced through the hydrolysis of fats or oils.
- (8) Iodine
- (9) Hydrogen peroxide
- (10) Magnesium sulfate
- (11) Oxytocin – use in postparturition therapeutic applications
- (12) Parasiticides

Ivermectin – prohibited in slaughter stock, allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from treated animal cannot be labelled as provided for in this standard for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period of breeding stock.

- (13) Phosphoric acid – allowed as an equipment cleaner, Provided, that, no direct contact with organically managed livestock or land occurs.

- (14) Biologics

Vaccines

(b) As topical treatment, external parasiticide or local anaesthetic as applicable.

Iodine

Lidocaine – as a local anaesthetic. Use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals.

Lime, hydrated – (bordeaux mixes), not permitted to cauterise physical alterations or deodorise animal wastes.

Mineral oil – for topical use and as a lubricant.

Procaine – as a local anaesthetic, use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals.

Copper sulphate

(c) As feed supplements

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 3, Section 4 Feed additives

Milk replacers – without antibiotics, as emergency use only, no nonmilk products or products from BST treated animals.

(d) As feed additives

Cross references:

NZFSA Technical Rules for Organic Production: Table 3, Section 4 Feed additives

DL – Methionine, DL-Methionine-hydroxy analog, and DL-Methionine-hydroxy analog calcium- for use only in poultry production until October 1, 2008.

- (2) Trace minerals, used for enrichment or fortification when FDA approved, including:

- (3) Vitamins, used for enrichment or fortification when FDA approved
- (e) *As synthetic inert ingredients as classified by NZFSA-ACVM/ERMA, for use with non-synthetic substances or a synthetic substance listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.*

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 3, part 2.2

Fish-based feeds.

Fish and fish products are not considered to be from organic sources and on that basis are prohibited as animal feeds by US

Interpretative note

On 3/1/02, the US National Organic Programme posted an answer to a “Frequently Asked Question” which indicates that fish products can be used for livestock feed

Q: Is the feed that is fed to organic livestock and poultry “vegetarian” feed?

A: Not necessarily. Although as stated in the National Organic Standards subpart C, Section 205.237(b)(5), “The producer of an organic operation must not feed mammalian or poultry slaughter by-products to mammals or poultry.” there is no restriction against organic livestock feed containing appropriate fish products.)

6.3 Processing Inputs

Non-agricultural (non-organic) substances allowed as ingredients in or on processed products labelled as organic” or “made with organic (specified ingredients or food group(s))”.

The following substances in this section are allowed for use in organic products for export to the USA only. They are prohibited for use in organic products for export to the EU, unless specifically listed in tables or Sections as per cross references below.

Cross references:

USDA NOP: 6.3.1 Non-agricultural (non-organic) substances allowed as ingredients in or on processed products labelled as organic” or “made with organic (specified ingredients or food group(s))”.

The following non-agricultural substances may be used as ingredients in or on processed products labelled as organic” or “made with organic (specified ingredients or food group(s)) only in accordance with any restrictions specified in this section.

Non-synthetics allowed:

- Animal enzymes – (rennet- animal derived: Catalase- bovine liver: Animal lipase: Pancreatin: Pepsin: and Trypsin)
- Calcium sulphate- mined only
- Glucono delta-lactone-production by oxidation of D-glucose with bromine water is prohibited

Cross references:

NZFSA Technical Rules for Organic Production:

- Table 4, Ingredients, Processing Aids

Summary of differences:

The following processing inputs are allowed by NZ, as prescribed in Table 4, NZFSA Technical Rules for Organic Production, but prohibited by US:

- Agar, argon, calcium sulphate, carrageenan, casein, ethanol solvent, karaga gum, hazelnut shells, isinglass, rice meal, sodium tartrate, sulphuric acid, talc, tannic acid, tragacanth gum, and vegetable oils. All of Table 4 Part C
- Volatile solvents

Cross references:

USDA NOP: Section 205.270 c2

US specifically prohibits synthetic volatile solvents in products labelled 'organic' and '100% organic'. NZ does not specifically prohibit synthetic volatile solvents, but none are approved on the list of allowed processing inputs.