



Technical Rules for Organic Production

MAF Standard OP3, Appendix Two



Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere



BIOSECURITY
NEW ZEALAND



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Amendment record

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1 Introduction to the Technical Rules of Organic Production

- 1.1 Originally issued in draft form as an extract (with MAF/NZFSA comments) in July 2000 from the relevant EU Regulation, and subsequently amended to incorporate United States National Organic Standard requirements. This document describes the scope and rules of production applying to MAF standards for giving official assurances of organic production to importing countries. It includes details of requirements for complying with MAF Standards OP1, OP2, and OP3.
- 1.2 It has been updated to take account of New Zealand law, for instance on food safety or animal welfare, other related standards and definitions, local production patterns and the like, rather than relying almost exclusively on the EU and US sources. This also takes into account that other markets are likely to seek official assurances of organic production from MAF as the relevant New Zealand Government agency.
- 1.3 With more markets being included in the OOAP with their own requirements, a new approach has been taken, with requirements for each of the markets covered by the OOAP contained in an appendix attached to this standard. This standard has been updated to incorporate detail from new EU regulations which came into force on 1 January 2009.
- 1.4 The Rules are envisaged as the Third Party Agency's (TPA) main reference point for what is required of organic production. In the absence of a national New Zealand standard it will be the yardstick against which the TPA will undertake verification and put forward a recommendation on official assurances on organic products intended for export under the MAF programme.
- 1.5 In many instances organic production methods already in existence in New Zealand may be compatible with the overseas requirements. TPAs may designate a standard of production already in existence in New Zealand to verify against. In these instances an independent review of the designated standard against the Rules will be required
- 1.6 TPAs need to be fully conversant with the details of the Rules relevant to the style of organic production they are verifying.
- 1.7 Entry into organic production involves a transition or conversion period from "conventional" to an organic system, and verification of this conversion process also forms a part of the requirements to be met.
- 1.8 These are the minimum requirements for organic production, and operators may choose to adopt higher standards.
- 1.9 Interpretations and/or changes to this document will be co-ordinated by MAF, on recommendation from the Organic Technical Committee. MAF interpretations may be added where clarification of the rules is required.
- 1.10 Proposals for dispensation will be accepted by MAF, provided it can be demonstrated to MAF's satisfaction that the required outcomes will be achieved.
- 1.11 Some organic products may not need an official organic assurance in order to gain access into an overseas market covered by this programme e.g. organic salt.

2 Scope

- 2.1 The Rules apply to the following products, produced and processed in accordance with New Zealand law, which bear, or are intended to bear, indications referring to the organic production method. Production of such products will be assessed for compliance with the **MAF** Official Organic Assurance Programme (OOAP):
- a. unprocessed agricultural plant and animal products (including unprocessed raw wool) and animals, to the extent that principles of production and specific inspection rules for them are introduced in the detailed rules of production which follow (from Section 5 onwards);
 - b. processed agricultural plant and animal products intended for human or animal consumption derived mainly from one or more ingredients of plant and/or animal origin as defined in (a).
- 2.2 A product will be regarded as bearing indications referring to organic production methods where, in the labelling, advertising material or commercial documents, the product, or its ingredients, are described by the term 'organic'.
- 2.3 Organic Products not included in 2.1 (a) or 2.1 (b) may be issued with an official organic assurance if the requirements of **MAF** Standards OP1, OP2 and OP3 have been met, unless they are specifically excluded (reference point 1.11)

3 Definitions

- 3.1 In addition to definitions set out in the Guide, OP1, OP2 and OP3, for the purposes of the Rules:
- 3.2 **Agricultural Compound** means any substance, mixture of substances, or biological compound, used or intended for use in the direct management of plants and animals, or to be applied to the land, place, or water on or in which the plants and animals are managed, for the purposes of—
- Managing or eradicating pests, including vertebrate pests; or
 - Maintaining, promoting, or regulating plant or animal productivity and performance or reproduction; or
 - Fulfilling special nutritional requirements; or
 - The manipulation, capture, or immobilisation of animals; or
 - Diagnosing the condition of animals; or
 - Preventing or treating conditions of animals; or
 - Enhancing the effectiveness of an agricultural compound used for the treatment of plants and animals; or
 - Marking animals;--

and includes any veterinary medicine, any substance, mixture of substances, or biological compound used for post-harvest pest control or dis-infestation of raw primary produce, and any substance, mixture of substances, or biological compound declared to be an agricultural compound for the purposes of the Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM Act).

NOTE: This definition encompasses the following terms:

animal feeds, compound feeds, feed additives, fertilisers, plant protection products, veterinary medicinal products as used in these Rules.

- 3.3 **Carriers**, including carrier solvents: food additives used to dissolve, dilute, disperse or otherwise physically modify a food additive without altering its technological function in order to facilitate its handling, application or use;
- 3.4 **Conventional feeds/feed materials** means feeds/feed materials not produced under these Rules.
- 3.5 **Factory Farming** means livestock management systems that rely heavily on veterinary inputs, and the confinement of animals such that normal animal behaviour is restricted. Typically this includes the use of cages. Feed inputs may include GM components which are not permitted in organic systems.

The intention is that this definition will restrict the sources of manure that can be used in organic farming systems. So for example, poultry manure from caged

farming systems will not be permitted, but poultry manure from a barn system may be permitted depending on the acceptability of feed ingredients and other inputs.

- 3.6 **Flavouring:** substances and products authorised for use in food intended for human consumption;
- 3.7 **Food additive** means any substance not usually consumed as a food by itself that is added to food in small quantities in order to affect the food's keeping quality, texture, consistency, appearance, odour, taste, alkalinity, or acidity, or to serve any other technological function in the manufacture, processing, preparation, treatment, packing, packaging, transport or storage of the food, and that results or may be reasonably expected to result (directly or indirectly) in the substance or any of its by-products becoming a component of, or otherwise affecting the characteristics of, the food; and includes any preservative, antioxidant, colouring substance, artificial sweetener, flavouring substance, food conditioner, anticaking agent, gaseous packing agent, propellant, vitamin, mineral, incidental constituent, or processing aid, and any material that is used in the production of a package and becomes a component of, or otherwise affects the characteristics of, any food packed in the package; but does not include salt, or any foodstuff;
- 3.8 **Genetically modified organism (GMO)** means, unless expressly provided otherwise by regulations, any organism in which any of the genes or other genetic material: (a) Have been modified by in vitro techniques; or (b) Are inherited or otherwise derived, through any number of replications, from any genes or other genetic material which has been modified by in vitro techniques.
1. Organisms not to be regarded as genetically modified:
 - a. Organisms that result solely from selection or natural regeneration, hand pollination, or other managed, controlled pollination;
 - b. Organisms that are regenerated from organs, tissues, or cell culture, including those produced through selection and propagation of somaclonal variants, embryo rescue, and cell fusion (including protoplast fusion or chemical or radiation treatments that cause changes in chromosome number or cause chromosome rearrangements);
 - c. Organisms that result solely from artificial insemination, super ovulation, embryo transfer, or embryo splitting;
 - d. Organisms modified solely by: (i) The movement of nucleic acids using physiological processes, including conjugation, transduction and transformation; and (ii) Plasmid loss or spontaneous deletion;
 - e. Organisms resulting from a spontaneous deletions, rearrangements, and amplifications within a single genome, including its extra chromosomal elements.
 2. Despite anything in sub clause (1)(d), if nucleic acid molecules produced using in vitro manipulation are transferred using any of the techniques referred to in subparagraph (i) or subparagraph (ii) of sub clause (1)(d), the resulting organism is a genetically modified organism. (Hazardous Substances and New Organisms Act 1996).

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- 3.9 **GMO derivative:** any substance which is either produced from or produced by GMOs, but does not contain them;
- 3.10 **Homeopathic veterinary medicinal products** mean a veterinary medicinal product prepared by a process of solution, extraction or titration of an active ingredient followed by strict regimented serial dilution.
- 3.11 **Hydroponic** - the method of growing plants with their roots in a mineral nutrient solution only or in an inert medium, such as perlite, gravel or mineral wool to which a nutrient solution is added
- 3.12 **In-conversion feeds/feed materials** means feeds/feed materials complying with these Rules except for the conversion period where the Rules apply for at least one year before the harvest;
- 3.13 **Ingredients of agricultural origin** are:
- a. single agricultural products and products derived therefrom by appropriate washing, cleaning, thermic and/or mechanical processes and/or by physical processes having the effect of reducing the moisture content of the product;
 - b. also, products derived from the products mentioned under (a) by other processes used in food processing, unless these products are considered food additives or flavourings as defined under points 3.6 or 3.7 hereunder.
- 3.14 **Ingredients of non-agricultural origin** are ingredients other than ingredients of agricultural origin and belonging to at least one of the following categories:
- a. food additives, including carriers for food additives, as defined in 3.3 and 3.7;
 - b. flavourings, as defined in 3.6;
 - c. water and salt;
 - d. micro-organism preparations
 - e. minerals (including trace elements) and vitamins.
- 3.15 **Labelling** means any written, printed or graphic matter that is present on the label, or accompanies the product or is displayed near the product including that for the purpose of promoting its sale or disposal.
- 3.16 **Marketing** means holding or displaying for sale, offering for sale, selling, delivering or placing on the market in any other form;
- 3.17 **Nulliparous** - Designating or belonging to a female mammal who has never given birth
- 3.18 **Operator** means a natural or legal person or business entity who has completed the registration process with a Third Party Agency and has the day to day management and/or contractual control of an Organic Management Plan;
- 3.19 **Preparation** means the operations of preserving and/or processing of agricultural products, (including slaughter and cutting for livestock products), and also packaging

and/or alterations made to the labelling concerning the presentation of the organic production method of the fresh, preserved and/or processed product;

3.20 **Production** means the operations on the agricultural holding involved in producing, packaging and initially labelling as products of organic production, agricultural products produced on that holding;

3.21 **Transhumance** - The seasonal transfer of grazing animals to different pastures, often over substantial distances

3.22 **Vegetative propagating material** – Any plant tissue including shoots, leaf or stem cuttings, roots, tubers, rhizomes, bulbs, or corms used in plant production or propagation.

3.23 **Use of GMOs and GMO derivatives** means use thereof as foodstuffs, food ingredients (including additives and flavourings), processing aids (including extraction solvents), animal feeds, compound feeds, feed materials, feed additives, processing aids for feeds, certain products used in animal nutrition, plant protection products, veterinary medicinal products, fertilisers, soil conditioners, seeds, vegetative reproductive material and livestock;

4 General requirements to be met prior to seeking official organic assurances

- 4.1 Organic production means that for the production of products referred to other than seeds and vegetative propagating material:
- a. at least the requirements of Sections 5, 6, 7 and 8 and, where appropriate, the detailed rules relating thereto, must be satisfied;
 - b. only products composed of substances mentioned in Section 5 or listed in Tables 1 to 6 may be used as plant protection products, fertilisers, soil conditioners, animal feeds, feed materials, compound feeds, feed additives, substances used in animal nutrition, cleaning and disinfecting products for animal buildings and installations, products for pest and disease control of animal buildings and installations, or for another purpose where such purpose is specified in Tables 1 to 6 in regard to certain products. They may be used only under the specific conditions laid down in Sections 5, 6 and 7 and Tables 1 to 6 in so far as the corresponding use is authorised in general agriculture in New Zealand law;
 - c. only seed or vegetative propagating material produced by the organic production method referred to in 4.2 is used;
 - d. genetically modified organisms and/or any product derived from such organisms must not be used, with the exception of veterinary medicinal products.
 - e. ionising radiation must not be used for the treatment of organic food or feed, or of raw materials used in organic food or feed.
- 4.2 Organic production means that for seeds and vegetative productive material, the mother plants in the case of seeds and the parent plant(s) in the case of vegetative propagating material, and perennial plants have been produced:
- a. without the use of genetically modified organisms and/or any products derived from such organisms, and
 - b. in accordance with 4.1 (a) and (b) for at least twelve months.

The youngest propagating material should be sourced for all practical purposes.

- 4.3 Untreated non-organic seed and vegetative propagating material may be used with the approval of the TPA. The operator must demonstrate to the satisfaction of the TPA:
- a. the seed or vegetative propagating material is not available in organic form;
 - b. the requirements in 4.2(a) are met.

Perennial plants and vegetative propagating material shall be managed organically for at least twelve months before organic products can be harvested.

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

- 4.4 Non-organic seed, vegetative propagating material and perennial plants treated with a product listed in Table 2, may be used with the approval of MAF, providing the operator demonstrates the requirements in 4.3 to the satisfaction of the TPA.
- 4.5 The TPA may apply to MAF for dispensation to use seed, vegetative propagating material or perennial plants treated with a product not listed in Table 2. The seeds, vegetative propagating materials or perennial plants must not be able to be sourced without the use of these products. The treatment must be prescribed for phytosanitary purposes. The operator must demonstrate the requirements of 4.3 to the satisfaction of the TPA.
- 4.6 Seed and vegetative propagating material from a production unit in conversion to organic farming may be used. This only applies if the material is not available in organic form, and it is necessary in order to ensure access to such material. An exception must be granted by the TPA to use this clause.
- 4.7 An entire agricultural holding shall be managed in compliance with the requirements applicable to organic production.

However, a holding may be split up into clearly separated units which are not all managed under organic production subject to the following:

- a. Different species of animals shall be involved
- b. Different varieties of plants that can be easily differentiated shall be involved
- c. The operator shall keep the land, animals and products used or produced by the organic units separate from those used for or by the non-organic units.
- d. The requirements in 9.1.2 are met.
- e. The operator shall keep adequate records to show the separation
- f. An exception must be granted by the TPA to utilise this clause.

5 Plants and Plant Products

- 5.1 The principles set out in this Section must have been applied on the parcels of land during a conversion period of:
- at least two years before sowing or,
 - in the case of grassland or perennial forage, at least two years before its use as feed from organic farming, or,
 - in the case of perennial plants other than grassland, at least three years before the first harvest of products as referred to in 2.1(a).
- 5.2 The conversion period shall start at the earliest when the operator has filed an Organic Management Plan with the TPA. The TPA may, with **MAF** approval decide to:
1. Recognise a conversion period immediately prior to the lodgement of the OMP subject to-
 - a. the land having been:
 - a natural or fallow agricultural area; or,
 - under active organic management, and only inputs listed in Tables 1 and 2 have been applied to the land; and,
 - b. the land having been under the oversight of a TPA for a period of 12 months from lodgement of the OMP, including a minimum of 2 audits; and,
 - c. the TPA being confident at the end of the 12 month period that the operator is able to comply with these Rules; and,
 - d. the TPA providing **MAF** with satisfactory proof that (a) to (c) above have been met, including but not limited to:
 - Affidavit of last application of prohibited substances
 - TPA audit report
 - Satisfactory soil residue test results including for persistent organochlorines
 - Any other relevant information
 2. Reduce the conversion period to the strict minimum when land which has already been converted, or was in the process of conversion, to organic farming has been treated with a product not included in Table 2 as part of;
 - a mandatory pest, plant or disease control scheme or,
 - scientific tests approved by **MAF**.

The reduction in the conversion period must take account of the following points:

- an insignificant level of residue of the product of concern must be shown in the soil and perennial plants where appropriate, using current methods, and
 - products of the harvest following treatment are not eligible for certification under the official organic assurance programme.
- 5.3 The TPA may, with **MAF** approval, extend the conversion period in certain cases, where the land has been contaminated with products not authorised for organic production.
- 5.4 The fertility and the biological activity of the soil must be maintained or increased, in the first instance, by:
- cultivation of legumes, green manures or deep-rooting plants in an appropriate rotation programme;
 - incorporation of animal manure, preferably composted and from organic animal production, within the restrictions of Section 6.7.2, in accordance with the provisions of these Rules. By products from animal farming such as farmyard manure may be used if they come from animal holdings respecting organic animal production principles recognised in New Zealand.
 - incorporation of other organic material, preferably composted, from holdings producing according to these Rules.
- 5.5 Other organic or mineral fertilisers, listed in Table 1, may exceptionally, be applied, as a complement to the extent that:
- adequate nutrition of the crop being rotated or soil conditioning are not possible by the methods set out under 5.4,
 - with regard to the products in Table 1 referring to manure and/or animal excrements: these products may only be used to the extent that, in combination with the animal manure referred to in 5.4, the restrictions of Section 6.7.2 are satisfied.
- The operator shall keep documentary evidence of the need to use these products.
- 5.6 Mineral nitrogen fertilisers are not to be used
- 5.7 For compost activation, appropriate plant-based preparations or preparations of micro-organisms, not genetically modified, may be used. So-called “biodynamic preparations” from stone meal, farmyard manure or plants may also be used.
- 5.8 Appropriate preparations of micro-organisms, whose use is legally permitted, and which are not genetically modified, may be used to improve the overall condition of the soil or the availability of nutrients in the soil or in the crops, where the need for such use has been recognised by the TPA.
- 5.9 Pests, diseases and weeds shall be controlled by a combination of the following measures:
- choice of appropriate species and varieties,

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- biological control
 - appropriate rotation programmes,
 - soil solarisation (the plastic must be re-used and picked up once it has deteriorated beyond use);
 - mechanical controls such as traps, dispensers, barriers (traps and/or dispensers shall prevent substances being released into the environment and prevent contact between substances and crops being cultivated. The traps shall be collected after use and disposed of safely.);
 - light and sound;
 - mechanical cultivation procedures,
 - mulching and mowing;
 - grazing of animals;
 - protection of natural enemies of pests through provision of favourable habitats (e.g. hedges, nesting sites),
 - flame weeding/ steam weeding (mobile units only which minimise soil damage, and only for use on emerged plants).

5.10 Only in cases of immediate threat to the crop may recourse be had to products referred to in Table 2.

5.11 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:

- those areas have received no treatments with products other than those referred to in Tables 1 and 2 for a period of three years before the collection.
- the collection does not affect the stability of the natural habitat or the maintenance of the species in the collection area.

5.12 For production of mushrooms, substrates composed only of the following components may be used:

- farmyard manure and animal excrements (including the products referred to in Table 1):
- either from holdings operating an organic management plan;
- or satisfying the requirements (for animal wastes) referred to in the first four entries in Table 1, only up to 25%¹, and only when product in the previous dash-point sub-paragraph is not available;

¹This percentage is calculated on weight of total components of the substrate (excluding the covering material and any added water) before composting.

- products of agricultural origin, other than those covered under the first bullet point of this 5.2 (e.g. straw), from organic production operations;
- peat not chemically treated;
- wood, not treated with chemical products after felling;
- mineral products in Table 1, water and soil.

5.13 Hydroponic production is prohibited

5.14 Products for cleaning and disinfection of harvesting equipment and facilities, buildings, installations and storage shall be used only if they are fit for purpose using a MAF approved product and have been authorised for use in organic production. The use of cleaners, sanitizers and disinfectants must be in a way that maintains the organic integrity of the products. An intervening event must be performed between the use of cleaners, sanitizers and disinfectants on contact surfaces and handling of the organic products. This intervening event must be sufficient to prevent residual contamination of the organic products.

6 Animals and Animal Products

6.1 General principles

- 6.1.1 Species covered are: bovine (including Bubalus and bison species), porcine, ovine, caprine, cervine (i.e. farmed deer only), equidae, poultry, and ostriches and emus. Animal products from aquaculture are not included.
- 6.1.2 Animal production forms an integral part of many agricultural holdings practising organic farming. It must contribute to the equilibrium of agricultural production systems by providing for the nutrient requirements of plants and by improving the soil's organic matter. It can thus help establish and maintain soil-plant, plant-animal and animal-soil interdependence. As part of this concept, landless production (see 6.1.4 below) is not regarded as organic production.
- 6.1.3 By utilising renewable natural resources (animal manure, legumes and fodder crops), the cropping/stockfarming system and grazing systems allow soil fertility to be maintained and improved in the long term and contributes to the development of sustainable agriculture.
- 6.1.4 Organic animal farming is a land-related activity. Except where authorised by way of exception in this Section 6, animals must have access to a free-range area. The number of animals per unit of area must be limited to ensure integrated management of livestock and crop production on the production unit. Any form of pollution, in particular of the soil, and of surface and ground water, must be minimised. The number of animals 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 animal manure so that any adverse effect on the environment can be avoided. Detailed rules on the use of animal manure are set out in Section 6.7.
- 6.1.5 To be eligible for official organic assurances, all animals on one production unit must be reared in accordance with these Rules.
- 6.1.6 However, animals not so reared may be present on the holding provided they are on units where the buildings and parcels are separated clearly from the organic operation, and a different species is involved.
- 6.1.7 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 [Annex II \(Table 6\)](#).
- 6.1.8 Animals reared in accordance with these Rules may be grazed on common land (not generally a concept recognised in New Zealand), providing that:
- the land has not been treated with products other than those allowed for in Tables 1 and 2, for at least three years;
 - any animals grazing this land, which are not from an organic operation, have had normal access to pastoral grazing (and not intensive husbandry) ;

- c. any animal products produced by animals from an organic operation, while using this land, shall not be regarded as being from organic-production, unless the TPA is satisfied there has been adequate segregation from other animals not so reared.

6.2 Conversion

Conversion of land associated with organic livestock production

- 6.2.1 Where a production unit is converted to organic production, the whole area of the unit used for producing animal feed must comply with these Rules, using the conversion periods established in Section 5 relating to plants and plant products.
- 6.2.2 The conversion period may be reduced to one year for pasture, open air runs and exercise areas used by non-herbivore species. This period may be reduced to six months where the land concerned has not, in the recent past, received treatments with products other than those referred to in Section 10 of these Rules.

Conversion of animals and animal products

- 6.2.3 If animal products are to be certified as organic products, the animals must be reared according to these Rules for at least:
- 12 months in the case of equidae, cervine (i.e. farmed deer) and bovines (including Bubalus and bison species) for meat production, and in any case at least three quarters of their lifetime,
 - six months in the case of small ruminants and pigs;
 - six months in the case of animals for milk production;
 - 10 weeks for poultry for meat production, brought in before they are three days old,
 - six weeks in the case of poultry for egg production.

These conversion periods also apply to those animals in 6.3.6, 6.3.7 and 6.3.9.

- 6.2.4 Animals and animal products produced during the conversion period may not be marketed as organic.

Simultaneous conversion

- 6.2.5 Products from non-organic animals existing on a holding at the beginning of the conversion period may be deemed organic if there is simultaneous conversion of the complete production unit, including animals, and any land used for grazing and/or animal feed. The total combined conversion period for the existing animals, their offspring, pasturage and any land used for animal feed may be reduced to 24 months if the animals are mainly fed with products from the production unit.
- 6.2.6 Stock born during the conversion period under simultaneous conversion, can be marketed as organic for meat when the 24 months conversion period is completed.

6.3 Origin of the animals

- 6.3.1 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. 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.).
- 6.3.2 Animals must come from production units which comply with these Rules. Throughout their life, this system of production must be applied.
- 6.3.3 Subject to prior approval by the TPA, animals existing on the animal production unit not complying with these Rules can be converted.
- 6.3.4 When a herd or flock is constituted for the first time, non-organically reared animals may be brought into an organic production unit, subject to the following conditions:
- pullets for egg production and poultry for meat production are less than three days old. This may only occur when organically reared poultry are not available in sufficient numbers, and it necessary to ensure access to live animals. Such exceptions shall be kept to a minimum and be limited in time. Prior authorisation of the TPA is required for the use of this clause.
 - When organically reared pullets for egg production are not available, non-organically reared pullets less than 18 weeks old may be brought onto an organic farm until 31 December 2011. This exception may be used when it necessary to ensure access to live animals, and shall be kept to a minimum and be limited in time. Sections 6.4 and 6.5 must be met, and there must be prior authorisation of TPA.
 - buffalo , calves, deer and horses must be reared according to these Rules as soon as they are weaned and must be less than six months old at the date on which they enter the herd ,
 - sheep and goats must be reared according to these Rules as soon as they are weaned and in any case they must be less than 60 days old at the date on which they enter the herd,
 - piglets must be reared according to these Rules as soon as they are weaned and weigh less than 35 kg at the date on which they enter the herd.

If animal products from these animals are to be certified as organic products, these animals must undergo the conversion periods in 6.2.3.

- 6.3.5 A herd or flock may be renewed or reconstituted with non-organic animals, where health or catastrophic circumstances cause high mortality of animals. Organically reared animals must not be available, and these temporary measures must be necessary to ensure access to live animals. The use of this clause must be authorised by the TPA, and may only be on authorised on a temporary basis.

The operator shall keep documentary evidence of use of this exception.

- 6.3.6 For the renewal of a livestock herd, non-organic adult male and nulliparous female mammals may be brought on to an organic unit, and shall be subsequently reared in accordance with these Rules. The number of female mammals is limited to an annual maximum of 10% of adult equine or bovine (including Bubalus and bison species) or cervine (i.e. farmed deer) animals, and 20% of the adult porcine, ovine and caprine animals.

If animal products from these animals are to be certified as organic products, these animals must undergo the conversion periods in 6.2.3.

- 6.3.7 The percentages in 6.3.6 do not apply to production units with less than 10 equine, bovine or cervine (i.e. farmed deer) animals, or with less than five porcine, ovine or caprine animals. For these units, any renewal is limited to a maximum of one animal per year.

If animal products from these animals are to be certified as organic products, these animals must undergo the conversion periods in 6.2.3.

- 6.3.8 The provisions of 6.3.6 and 6.3.7 will be reviewed in 2012 with a view to phasing them out.

- 6.3.9 The percentages in 6.3.6 may be increased up to 40 % following the authorisation of the **MAF** in the following special cases:

- when a major extension to the farm is undertaken;
- when a breed is changed;
- when a new animal specialisation is developed;

If animal products from these animals are to be certified as organic products, these animals must undergo the conversion periods in 6.2.3.

- 6.3.10 Where animals come from units not complying with these Rules, in accordance with the conditions and restrictions set out in 6.3.3 to 6.3.10, the periods specified in 6.2.3 must be observed if the products are to receive official organic assurances. During the conversion periods all the Rules must be complied with.

- 6.3.11 Where animals are obtained from units not complying with these Rules, special attention must be paid to animal health measures. The TPA may apply special measures, such as screening tests, and quarantine periods, depending on local circumstances.

6.4 Feed

- 6.4.1 Details under this heading are set out so that operators using feeds know what the requirements are on operators in an EU situation. More normal New Zealand pastoral grazing avoids most of the requirements. Only feed materials authorised for use in terms of New Zealand legislation may be used.

- 6.4.2 Feed is intended to ensure quality production rather than maximising production, while meeting the nutritional requirements of the animals at various stages of their development. Fattening practices are authorised in so far as they are reversible at any stage of the rearing process. Force-feeding is not permitted.

- 6.4.3 Animals must be fed on organically produced feeds.
- 6.4.4 Furthermore, animals must be reared in accordance with these Rules, using feed from the unit or, when this is not possible, using feed from other units or enterprises complying with these Rules. For herbivores, at least 50% of the feed shall come from the organic unit itself, except when the animals are under transhumance (high-country grazing).
- 6.4.5 During transhumance, animals may graze on non-organic land while they are being moved on foot from one grazing area to another. This grazing shall not exceed 10% of the total feed ration per year, calculated as a percentage of the dry matter of feeds stuffs from agricultural origin.

The operator shall keep documentary evidence of using this provision.

- 6.4.6 Up to 30% of the feed formula of rations on average may comprise in-conversion feeds. When the in-conversion feeds come from the organic unit, this percentage can be increased to 100%.
- 6.4.7 The feeding of young mammals must be based on natural milk, preferably maternal milk. All mammals must be fed on natural milk for a minimum period, depending on the species concerned:
- three months for bovines (including Bubalus and bison species), cervines (i.e. farmed deer), and equidae
 - 45 days for sheep and goats
 - 40 days for pigs.

TPAs may consider reduced periods where the rearing systems use supplementary feed in the form of fresh and dry grass as well as milk, in order to produce well reared, hardy livestock.

- 6.4.8 Where relevant, MAF, in consultation with the TPA, may designate areas or regions where movement of animals to high-country grazing areas is practicable, without prejudice to the provisions on the feeding of animals in this Section 6.
- 6.4.9 Rearing systems for herbivores are to be based on maximum use of grazing according to the availability of pastures in the different periods of the year. At least 60% of the dry matter in daily rations of herbivores is to consist of roughage, fresh or dried fodder, or silage. Nevertheless, the TPA can permit a reduction to 50% for animals in dairy production for a maximum period of three months in early lactation.
- 6.4.10 The TPA may, with MAF approval, authorise a limited proportion of conventional feed of agricultural origin where organic feed is not available on the market, and it is necessary to ensure access to feed. Such exceptions shall be kept to a minimum, and should be limited in time.

For species other than herbivores, the maximum percentage of conventional feed authorised per 12 month period is 5% during the period from 1 January 2010 to 31 December 2011.

These figures shall be calculated annually as a percentage of the dry matter of feed from agricultural origin.

The maximum percentage of conventional feed authorised for both herbivores and non-herbivores in the daily ration is 25% calculated as a percentage of the dry matter.

The operator shall keep documentary evidence of the need for the use of this provision.

- 6.4.11 When forage production is lost **MAF** can authorise the use of conventional feeds for a limited period and in relation to a specific area. This exception may be used as a result of adverse climatic conditions or other exceptional conditions.

The operator shall keep documentary evidence of use of this exception.

- 6.4.12 Roughage, fresh or dried fodder, or silage must be added to the daily ration for pigs and poultry.
- 6.4.13 Only products listed in Tables 3.4.5 and 3.6.1, respectively, can be used as additives and processing aids in silage
- 6.4.14 Conventional feed materials of agricultural origin can be used for animal feeding only if listed in Table 3.1, subject to the quantitative restrictions imposed in this Section 6, and only if they are produced or prepared without the use of chemical solvents
- 6.4.15 Feed materials from animal origin (whether conventional or organically produced) can only be used if listed in Table 3.2, and subject to the quantitative restrictions imposed in this Section 6.
- 6.4.16 In order to satisfy nutritional requirements of animals, only products listed in Table 3.3, Table 3.4.1 and Table 3.4.2 can be used for animal feeding
- 6.4.17 Only products listed in Table 3.4.3, Table 3.4.4, Table 3.4.5, Table 3.4.6, Table 3.4.7, Table 3.5 and Table 3.6 can be used in animal feeding for the purposes indicated in respect to the above mentioned categories. Antibiotics, coccidiostatics, medicinal substances, growth promoters or any other substance intended to stimulate growth or production shall not be used in organic animal feeding.
- 6.4.18 Feeds, feed materials, compound feeds, 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.

6.5 Disease prevention and veterinary treatment

- 6.5.1 Operators must ensure that animals are treated in accordance with all provisions of New Zealand animal welfare and veterinary medicines legislation. Only veterinary medicinal products that are authorised for the specified uses under the Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM Act), Hazardous Substances and New Organisms Act 1996 (HSNO Act) or are exempt are to be used.

- 6.5.2 Disease prevention in organic animal production is based on the following principles:
- a. the selection of appropriate breeds or strains of animals as detailed in Section 6.3;
 - b. the application of animal husbandry practices appropriate to the requirements of each species, encouraging strong resistance to disease and the prevention of infections;
 - c. the use of high quality feed, together with regular exercise and access to grazing, having the effect of encouraging the natural immunological defence of the animals;
 - d. ensuring an appropriate density of animals, thus avoiding overstocking and any resulting animal health problems.
 - e. adequate and appropriate housing maintained in hygienic conditions
- 6.5.3 The principles set out in 6.5.2 should limit animal health problems so that they can be controlled mainly by prevention.
- 6.5.4 If, despite all of the above preventive measures, an animal becomes sick or injured, it must be treated immediately, if necessary in isolation, and in suitable housing.
- 6.5.5 The use of veterinary medicinal products in organic farming shall comply with the following principles:
- a. Phytotherapeutic (e.g. plant extracts (excluding antibiotics), essences, etc.), homeopathic products (e.g. plant, animal or mineral substances) and trace elements and products listed in Table 3.3, Table 3.4.1 and Table 3.4.2 shall be used in preference to chemically-synthesised allopathic veterinary medicinal products or antibiotics, provided that their therapeutic effect is effective for the species of animal, and the condition for which the treatment is intended;
 - b. If the use of these products is not effective in combating illness or injury, and treatment is essential to avoid suffering or distress to the animals, chemically-synthesised allopathic veterinary medicinal products or antibiotics may be used under the responsibility of a veterinarian.
- 6.5.6 The use of chemically-synthesised allopathic veterinary medicinal products or antibiotics for preventive treatments is not permitted in animals or products for which official organic assurances are sought.
- 6.5.7 In addition to the above principles, the following rules shall apply:
- a. the use of substances to promote growth or production, (including antibiotics, coccidiostats 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 not permitted in animals or products for which official organic assurances are sought. Nevertheless, hormones may be administered to an individual animal, as a form of therapeutic veterinary treatment;

- b. mandatory veterinary treatments to animals, or treatments to buildings, equipment and facilities including the use of immunological veterinary medicinal products when a disease risk has been recognised as present in a specific area in which the production unit is located, are authorised.

6.5.8 Whenever veterinary medicinal products are to be used the following information is to be declared to the TPA before official organic assurances are sought for the animals or animal products:

- type of product (including the active ingredient(s)) must be clearly recorded
- details of the diagnosis;
- the dosage;
- the method of administration;
- the duration of the treatment, and
- the legal withdrawal period.

Animals treated must be clearly identified, individually in the case of large animals; individually or by batch, in the case of poultry and small animals. Existing animal identification forms, vendor declarations or the like may be used.

6.5.9 The withdrawal period between the last administration of an allopathic veterinary medicinal product to an animal under normal conditions of use, and the production of organic products from such animals, is to be twice the legal withdrawal period or, in a case in which this period is not specified, 48 hours.

6.5.10 If animals receive more than three courses of treatment with chemically-synthesised allopathic veterinary medicinal products or antibiotics within one year, they are not eligible for official organic assurances. Products derived from them are also not eligible. This does not apply to mandatory vaccinations, treatments for parasites or any compulsory eradication schemes. Animals whose productive lifecycle is less than one year may not receive more than one such course of treatment. Animals which do receive more than the allowed treatments must undergo the conversion periods in Section 6.2.3.

The operator shall keep records of documented evidence of the occurrence of such circumstances for the TPA.

6.6 Husbandry practices

6.6.1 In principle, the reproduction of organically reared animals should be based on natural methods. Nevertheless artificial insemination is permitted. Other forms of artificial or assisted reproduction (for example embryo transfers) are not permitted.

6.6.2 In principle, operations such as attaching elastic bands to the tails of sheep, tail-docking, cutting of teeth, trimming of beaks and dehorning are not to be systematically carried out on animals in organic production. These operations (e.g. dehorning in young animals) may however, be authorised by the TPA, for reasons of safety or where normal New Zealand animal welfare or good

husbandry practice requires, especially if they are intended to improve the health, welfare or hygiene of the animals, and some (e.g. dehorning) may actually be desirable. 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.

- 6.6.3 Physical castration is allowed in order to maintain the quality of products and traditional production practices (pigs for meat, bullocks, capons, etc.) but only under the conditions set out in the last sentence of 6.6.2.
- 6.6.4 Keeping animals tethered is not permitted in animals or products for which official organic assurances are sought. Nevertheless, the TPA may authorise cattle in small holdings to be tethered if it is not possible to keep the cattle in groups according to their behaviour requirements. Cattle so kept must have access to pasture and grazing.
- 6.6.5 Where animals 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 animals in conditions or on a diet, which may encourage anaemia, is not permitted in animals or products for which official organic assurances are sought.
- 6.6.6 To prevent the use of intensive rearing methods, poultry shall either be reared until they reach a minimum age or else shall come from slow growing poultry strains. Where slow-growing poultry strains are not used by the operator the following minimum age at slaughter shall be:
- 81 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 guineafowl,
 - 140 days for male turkeys and roasting geese.
 - 100 days for female turkeys

MAF shall define the criteria of slow-growing strains or draw up a list thereof and provide this information to operators.

Transport

- 6.6.7 Transport of animals must be carried out so as to limit the stress suffered by the animals in accordance with New Zealand legislation. Loading and unloading must be carried out with caution and without the use of any type of electrical stimulation to coerce the animals. The use of any allopathic tranquilliser, prior to

and during transport, is not permitted in animals or products for which official organic assurances are sought.

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

Identification of animal products

- 6.6.9 Animals and animal products shall be identified permanently at all stages of their production, preparation, transport and marketing. Identification techniques shall be adapted to each species. This shall be individually for large mammals and either individually or by batch for poultry and small mammals.

6.7 Animal manure

- 6.7.1 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.
- 6.7.2 The total amount of manure applied on the holding may not exceed 170 kg of nitrogen per year/hectare of agricultural area used. Where necessary, the total stocking rate is to be reduced to avoid exceeding this limit. Guidance for calculating the stocking rates for the various categories of animals is provided in **Annex II (Table 6)**. (Note: The stocking rates in **Annex II (Table 6)** only apply to units where the spreading of animal manure from animals housing on to pasture is undertaken).
- 6.7.3 Any deviation from these figures which is likely to lead to the limit of 170 kg of nitrogen from manure per year/hectare being exceeded must be notified to **MAF** together with reasons justifying the changes. This is without prejudice to the stocking densities for animal health and welfare purposes in 6.8 and in **Annex II (Table 6)**.
- 6.7.4 Organic production holdings may establish cooperation with other holdings and enterprises which comply with these Rules, 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.
- 6.7.5 Storage facilities for animal manure must be of a capacity to preclude the pollution of water by direct discharge, or by run-off and infiltration of the soil.
- 6.7.6 To ensure sound fertiliser management, the capacity of such storage facilities for animal manure must exceed the storage capacity required for the longest period of the year in which any application of fertiliser to the land is either inappropriate (in accordance with good agricultural practice) or when such application is prohibited.

6.8 Free range areas and animal housing

General Principles

- 6.8.1 Normal New Zealand agriculture does not involve widespread use of animal housing. Animal welfare and resource management requirements must be

complied with. The provisions spelled out in this Section, following the EU model, are likely to apply only in exceptional cases.

- 6.8.2 Housing conditions for animals must meet the animals' biological and ethological needs (e.g. behavioural needs as regards appropriate freedom of movement and comfort). The animals 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.
- 6.8.3 Free-range, 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.

Stocking densities and the avoidance of over-grazing

- 6.8.4 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.
- 6.8.5 The minimum surface areas for indoor housing and outdoor exercise areas, and other characteristics of housing for different species and categories of animals, are set out in **Annex II (Table 6)**.
- 6.8.6 The outdoor stocking density of animals kept on pasture, other grassland, wetland, and other natural or semi-natural habitats must be low enough to prevent overgrazing, poaching of soil, erosion or pollution caused by animals or by the spreading of their manure.
- 6.8.7 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 Table 5 can be used for such cleaning and disinfection of animal buildings and installations. Faeces, urine and uneaten or spilt feed must be removed as often as necessary to minimise smell and to avoid attracting insects or rodents. Only the products listed in Table 2 can be used for the elimination of insects and other pests in buildings and other installations where animals are kept.

Mammals

- 6.8.8 Subject to the provisions in 6.5.4, all mammals must have access to grazing or an open-air exercise area or an open-air run which may be partially covered, and they must be able to use those areas whenever the physiological condition of the animals, the weather conditions and the state of the ground permit, unless there are requirements relating to specific animal health problems that prevent this. Herbivores must have access to grazing whenever conditions allow.

- 6.8.9 In cases where herbivores have access to pasture for grazing and where the winter-housing system gives freedom of movement to the animals, the obligation to provide open-air exercise areas or open-air runs during the winter months may be waived.
- 6.8.10 Notwithstanding the last sentence of 6.8.8, bulls over one year old must have access to grazing or an open-air exercise area or an open-air run.
- 6.8.11 The final fattening phase of adult bovines for meat production may take place indoors, provided that this indoors period does not exceed one fifth of their lifetime, and in any case for a maximum period of three months.
- 6.8.12 For a transitional period expiring 31 December 2010, the final fattening phase of sheep and pigs for meat production may take place indoors, provided that this indoors period does not exceed one fifth of their lifetime, and in any case for a maximum period of three months.
- Control visits for operators utilising this provision must be carried out at least twice a year.
- 6.8.13 Animal housing must have smooth, but not slippery floors. At least half of the total floor area must be solid, not of slatted or of grid construction.
- 6.8.14 The housing provided must be comfortable, with a clean and dry laying/rest area of sufficient size, and consist 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 Table 1.
- 6.8.15 In addition to 6.8.1 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:
- c. the housing of calves in individual boxes after the age of one week is not permitted;
 - d. sows must be kept in groups, except in the last stages of pregnancy and during the suckling period. 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

- 6.8.16 Poultry in organic production must be reared in open-range conditions and cannot be kept in cages.
- 6.8.17 Water fowl in organic production must have access to a stream, pond or lake whenever the weather conditions permit in order to respect animal welfare requirements or hygienic conditions.
- 6.8.18 Buildings for all poultry must meet the following minimum conditions:

- at least one third shall be solid, that is, not of slatted or of 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 in **Annex II (Table 6)**;
 - 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:
 - 4800 chickens,
 - 3000 laying hens,
 - 5200 guinea fowl,
 - 4000 female Muscovy or Peking ducks,
 - 3200 male Muscovy or Peking ducks or other ducks,
 - 2500 capons, geese or turkeys;
 - the total usable area of poultry houses for meat production on any single production unit must not exceed 1600 m².
- 6.8.19 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.
- 6.8.20 Poultry must have access to an open-air run whenever the 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.
- 6.8.21 For health reasons, buildings must be emptied of animals 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.

7 Beekeeping and Bee Products

7.1 General principles

- 7.1.1 Beekeeping is an important activity that adds significant benefit to the protection of the environment and forestry, and the ongoing sustainability of agricultural production, through the pollination actions of bees.
- 7.1.2 The qualification of bee products as being from organic production is closely bound up both with the characteristic of the hives' treatments and the quality of the environment. This qualification also depends on the conditions for extraction, processing and storage of bee products.
- 7.1.3 When an operator runs several apiaries in the same geographic area for the purpose of pollination actions, all the apiaries must comply with these Rules. An operator can run apiaries not complying with the provisions in 7.4.2 of these Rules, provided that all other requirements of these Rules are fulfilled. In these cases, the products from the apiaries not complying with 7.4.2 are not eligible for official organic assurances. An exception must be granted by **MAF** to allow the use of this clause.

The operator must keep documentary evidence of the use of this provision.

7.2 Conversion period

- 7.2.1 Bee products can be sold with references to the organic production method only when the provisions in these Rules have been complied with for at least one year. During the conversion period the wax has to be replaced as set out in paragraph 7.8.3.

7.3 Origin of the bees

- 7.3.1 In the choice of breeds, account must be taken of the capacity of bees to adapt to local conditions, their vitality and their resistance to pests and disease. Preference shall be given to *Apis mellifera* and local ecotypes.
- 7.3.2 Apiaries must be constituted by means of the division of colonies or the acquisition of swarms or hives from apiaries complying with the provisions of these Rules.
- 7.3.3 Subject to prior approval by the TPA, existing apiaries in the production unit not complying with these Rules can be converted to organic production. The requirements in 7.2.1 must be met for converting apiaries.
- 7.3.4 Where high mortality of animals is caused by health or catastrophic circumstances, and organic apiaries are not available, apiaries may be reconstituted with non-organic bees. This exception may only be used where it is necessary in order to allow organic production to continue or recommence, and must be kept to a minimum and be of a temporary nature. This must be authorised by **MAF**.

The operator must keep documentary of the use of this exception.

- 7.3.5 For the renovation of the organic apiaries, 10% per year of the queen bees and swarms may be replaced by queen bees and swarms not complying with these Rules. The queen bees and swarms must be placed in hives with combs or comb foundations coming from organic production units. In this case, the conversion period does not apply.

7.4 Siting of the apiaries

- 7.4.1 Beekeeping complying with these Rules may not be practicable in some areas. A map on an appropriate scale listing the location of hives shall be provided with the Organic Management Plan by the beekeeper. Where no such areas are identified, the beekeeper must provide the TPA with appropriate documentation and evidence, including suitable analyses if necessary, that the areas accessible to his colonies meet the conditions required in these Rules.

- 7.4.2 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 3 km from the apiary site, nectar and pollen sources consist essentially of: organically produced crops; and/or spontaneous vegetation, consistent with the requirements of these Rules; and, crops not subject to the provisions of these Rules but treated with low environmental impact methods which cannot significantly affect the qualification of bees or bee products 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. The TPA, in consultation with MAF, will determine how this requirement is met.

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

7.5 Feed

- 7.5.1 At the end of the production season hives must be left with sufficient reserves of honey and pollen sufficiently abundant to survive the winter.
- 7.5.2 The supplementary feeding of colonies may be authorised by MAF where the survival of the hives is endangered due to adverse climatic conditions or other exceptional conditions. Supplementary feeding shall be done with organically produced honey or pollen, preferably from the same organic production unit. When this is not available other approved substitutes such as organic honey from other sources, organic molasses or organic sugar may be used. Supplementary feeding may only be done subject to the following:
- a. The following information shall be entered in the beekeeper's register of the apiaries with regard to the use of supplementary feeding: type of product, dates, quantities and hives where it is used.

- b. Supplementary feed products other than those indicated in the first paragraph of this clause cannot be used in beekeeping which complies with these Rules.
- c. Supplementary feeding may only be carried out between the last honey harvest and 15 days before the start of the next nectar or honeydew flow period.

7.5.3 For organic Queen bee production, MAF may authorise the feeding of organic sugars for temporary periods throughout the year when survival of the bees is endangered. Where this practise is used outside of the period in 7.5.2(c), honey from these hives cannot be represented as organic.

7.6 Disease prevention and veterinary treatments

7.6.1 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.

7.6.2 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.

7.6.3 The use of veterinary medicinal products in beekeeping which complies with these Rules shall respect the following principles:

- a. only veterinary medicinal products that are authorised for the specified uses under the ACVM and/or HSNO Acts, or are exempt can be used;
- b. phytotherapeutic and homeopathic products shall be used in preference to chemically synthesised allopathic products, provided that their therapeutic effect is effective for the condition for which the treatment is intended;
- c. if the use of these products should prove or is likely to be ineffective in the eradication of a disease or infestation which risks destroying colonies, chemically synthesised allopathic medicinal products may be used under the responsibility of a veterinarian or other authorised persons, without prejudice to the principles in (a) and (b);
- d. the use of chemically synthesised allopathic medicinal products for preventive treatments is not permitted in bees or bee products for which official organic assurances are sought;
- e. without prejudice to the principle in (a), formic acid, lactic acid, acetic acid and oxalic acid and the following substances: menthol, thymol, eucalyptol, camphor or organic icing sugar can be used in cases of infestation with *Varroa destructor*, provided they are, at the time, legally authorised. The use of organic icing sugar

under this clause is restricted in accordance with 7.5.2 (a) and (c); MAF approval must be obtained.

- 7.6.4 In addition to the above principles, official organic assurances may also be given on bees or bee products on which mandatory veterinary treatments or treatments to hives, combs etc., have been used.
- 7.6.5 If a treatment is applied with chemically synthesised allopathic products, during such a period, the colonies treated must be placed in isolation apiaries and all the wax must be replaced with wax complying with these Rules. Subsequently, the conversion period of one year will apply to those colonies.
- 7.6.6 The requirements in the 7.6.5 do not apply to products in 7.6.3(e).
- 7.6.7 Whenever veterinary medicinal products are to be used, the type of product (including the active ingredient(s)) together with details of the diagnosis, the dosage, the method of administration, the duration of the treatment and the legal withdrawal period must be recorded clearly and declared to the TPA before official organic assurances are sought for the bee products.

7.7 Husbandry management practices and identification

- 7.7.1 The destruction of bees in the combs as a method associated with the harvesting of bee products is not permitted in bees or bee products for which official organic assurances are sought.
- 7.7.2 Mutilation such as clipping the wings of Queen bees is not permitted in bees or bee products for which official organic assurances are sought.
- 7.7.3 The replacement of the Queen bees involving the killing of the old Queen is permitted.
- 7.7.4 The practice of destroying the male brood is permitted only to contain the infestation with *Varroa destructor*.
- 7.7.5 The use of chemical synthetic repellents is not permitted during honey extraction operations.
- 7.7.6 The zone where the apiary is situated must be recorded in the Organic Management Plan with the identification of the hives. The TPA must be informed of the moving of apiaries within a time-scale agreed on with the TPA.
- 7.7.7 Particular care shall be taken to ensure adequate extraction, processing and storage of bee products. All the measures to comply with these requirements shall be recorded.
- 7.7.8 The removals of the supers and the honey extraction operations must be entered in the beekeepers register of the apiary.

7.8 Characteristics of hives and materials used in beekeeping

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

- 7.8.2 With the exception of products in 7.6.3(e), only natural products such as propolis, wax and plant oils can be used in the hives.
- 7.8.3 The beeswax for new foundations must come from organic production units. But, in particular in the case of new installations or during the conversion period, beeswax not coming from such units may be authorised by the TPA in exceptional circumstances where organically produced beeswax is not available on the market and provided that it comes from the cap.
- 7.8.4 The use of combs, which contain broods, is prohibited for honey extraction.
- 7.8.5 For the purposes of protecting materials (frames, hives and combs), in particular from pests, only appropriate products listed in Table 2.2 are permitted.
- 7.8.6 Physical treatments such as steam or direct flame are permitted.
- 7.8.7 For cleaning and disinfecting materials, buildings, equipment, utensils or products used in beekeeping only the appropriate substances listed in Table 5 are permitted for use in premises listed in the Organic Management Plan, apiaries or bee products for which official organic assurances are sought.

8 Processed Foods

8.1 General requirements

- 8.1.1 The production of processed organic food shall be based on the following principles:
- a. the production of organic food from organic agricultural ingredients, except where an ingredient is not available on the market in organic form;
 - b. the use of food additives, non organic ingredients with mainly technological and sensory functions and of micronutrients and processing aids shall be kept to a minimum. These products may be used where there is an essential technological need or for particular nutritional purposes;
 - c. substances and processing methods that might be misleading regarding the true nature of the product must not be used
 - d. food must be processed with care, preferably using biological, mechanical and physical methods.
- 8.1.2 A full description of the processing unit shall be included in the Organic Management Plan, and shall show the facilities used for the reception, the processing, packaging, labelling and storage of agricultural products before and after the operations concerning them, as well as the procedures for the transport of the products. This applies to processing units which undertake the following types of activities:
- a. the preparation for its own products or products for a third party;
 - b. packaging and/or re-packaging of such products; or,
 - c. labelling and/or re-labelling of such products.
- 8.1.3 The preparation of processed organic food shall be kept separate in time or space from non-organic food
- 8.1.4 Operators producing processed food shall establish and update appropriate procedures based on a systematic identification of critical processing steps (a HACCP system). These steps shall guarantee that the produced processed products comply with the organic production rules at all times. Operators shall comply with and implement these processing steps, and in particular shall:
- a. take precautionary measures to avoid the risk of contamination by unauthorised substances or products;
 - b. implement suitable cleaning measures, monitor their effectiveness and record these operations;
 - c. guarantee that non-organic products are not placed on the market with an indication referring to the organic production method.
- 8.1.5 Where non-organic products are also prepared or stored in the preparation unit concerned, the operator shall:

- a. carry out operations on organic products continuously until the complete run has been dealt with, separated by place or time from similar operations performed on non-organic products;
- b. store organic products, before and after the operations, separated by place or time from non-organic products;
- c. inform the TPA of, and keep available, an up to date register of all operations and quantities processed;
- d. take the necessary measures to ensure identification of lots and to avoid mixtures or exchanges with non-organic products;
- e. carry out operations on organic products only after suitable cleaning of the production equipment.

8.2 Additives

- 8.2.1 Additives, processing aids and other substances and ingredients used for processing food or feed and any processing practice applied, such as smoking, shall respect the principles of good manufacturing practice.
- 8.2.2 The following conditions shall apply to the composition of organic processed food:
 - a. the product shall be produced mainly from ingredients of agricultural origin. To determine whether a product is produced mainly from ingredients of agricultural origin, added water and cooking salt shall not be taken into account;
 - b. only additives, processing aids, flavourings, water, salt, preparations of micro-organisms and enzymes, minerals, trace elements, vitamins, as well as amino acids and other micronutrients in foodstuffs for particular nutritional uses may be used, and only in so far as they have been authorised for use in organic production. Permitted materials are listed in Table 4.1 and Table 4.2.
 - c. only non-organic agricultural ingredients listed in Table 4.3 may be used
 - d. an organic ingredient shall not be present together with the same ingredient in non-organic form or an ingredient in-conversion;
 - e. food produced from in-conversion crops shall contain only one crop ingredient of agricultural origin.
- 8.2.3 Substances and techniques that reconstitute properties that are lost in the processing and storage of organic food, that correct the results of negligence in the processing of these products or that otherwise may be misleading as to the true nature of these products shall not be used.
- 8.2.4 The use of the following substances listed in Table 4 shall be re-examined before 31 December 2010:
 - a. Sodium nitrite and potassium nitrate in Table 4.1.1 with a view to withdrawing these additives;
 - b. Sulphur dioxide and potassium metabisulphite in Table 4.1.1;

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- c. Hydrochloric acid in Table 4.2 for the processing of Gouda, Edam and Maasdammer cheeses, Boerenkaas, Friese, and Leidse Nagelkaas.
- 8.2.5 The re-examination referred to in 8.2.4 shall take account of efforts to find safe alternatives to nitrites/nitrates and in establishing educational programmes in alternative processing methods and hygiene for organic meat processors/manufacturers.
- 8.2.6 Where an ingredient of agricultural origin is not included in Table 4.3, that ingredient may only be used under the following conditions:
- a. the operator has provided the TPA with evidence showing that the ingredient concerned is not available in organic form;
 - b. the TPA has reviewed the evidence and provisionally authorised the use of the ingredient for a maximum period of 12 months. This authorisation may be prolonged for a maximum of three times for 12 months each.

8.3 Cleaning and disinfecting

- 8.3.1 Operators must implement suitable cleaning measures, monitor their performance and record the operations. Operations on organic products may only be carried out after suitable cleaning of the production equipment.
- 8.3.2 The use of cleaners, sanitizers and disinfectants on food contact surfaces, must be in a way that maintains the foods organic integrity. An intervening event must be performed between the use of cleaners, sanitizers and disinfectants and the contact with organic food. This intervening event must be sufficient to prevent residual contamination of the organic food.

9 Application of Organic Management Plan Requirements: On-Site Assessment and Verification, Inspection and Certification

This section describes the application of verification and inspection activities conducted by a TPA to establish, agree on, and verify the implementation of Organic Management Plans by operators in the sectors described. The requirements on TPAs and their work are set out in OP1, OP2 and, in particular, Appendix One to OP3.

Notwithstanding anything in the following Sections 9.1 - 9.3, all final products (both fresh and processed) will be stored and/or transported in such a manner as to ensure no contamination from prohibited substances.

9.1 Plants and plant products from farm production or collection

9.1.1 Production must take place in a unit in which the land parcels, and production and storage locations:

- Have been managed in accordance with the provisions laid down in these Rules;
- 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.
- The handler of an organic handling operation must implement measures necessary to prevent the commingling of organic and non-organic products and protect organic products from contact with prohibited substances.

Processing and/or packaging workshops may form part of the unit, where its activity is limited to processing and packaging of its own agricultural produce.

9.1.2 A producer may run organic and non-organic production units in the same area, with an exception granted by the TPA. This is to ensure that organic production can be initiated or maintained on holdings confronted with climatic, geographical or structural constraints. The organic and non-organic units may run in the same area in the following cases:

- a. production of perennial plant products (fruit growing, vines and hops), where varieties can not be easily differentiated, provided the following conditions are met:
 - i. 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,
 - ii. Appropriate measures have been taken to ensure the permanent separation of the products obtained from each unit concerned, to the satisfaction of the TPA.

- iii. the TPA is notified of the harvest of each of the products concerned at least 48 hours in advance,
 - iv. 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 Organic Management Plan to separate the products have been applied,
 - v. the conversion plan and the measures referred to in points (i) and (ii) above 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 in 9.1.2(a)(ii), (iii) and (iv), and the relevant part of (v) are met;
 - c. in the case of production of seed, vegetative propagating material and transplants, provided that conditions in 9.1.2(a)(ii), (iii) and (iv), and the relevant part of (v) are met.
 - d. In the case of grassland exclusively used for grazing

9.1.3 When the Organic Management Plan is first established, even where the activity is limited to the collection of wild plants, the producer and the TPA must draw up:

- a full description of the unit, showing the storage and production premises and land parcels and/or collection areas and, where applicable, premises where certain processing and/or packaging operations take place,
- all the practical measures to be taken by the producer at unit level to ensure compliance with these Rules,
- in the case of collection of wild plants, any relevant guarantees given by third parties, if appropriate, which the producer can provide to ensure that the provisions of Section 4.1(b) are satisfied.

The description and the measures concerned must be contained in the Organic Management Plan.

In addition, the Organic Management Plan must include:

- the date of the last application on the parcels and/or collection areas concerned of products the use of which is not compatible with Section 4.1 (b),
- an undertaking by the producer to carry out operations in accordance with these Rules and to accept, in the event of non-compliance, enforcement of the measures provided for in the programme.

9.1.4 Where an operator runs both organic and non-organic production units in the same area, the non-organic units must also be included in the Organic Management Plan. Storage premises for input products (such as fertilisers, plant protection products and seed) must also be included in the Organic Management Plan. The

non-organic and storage units shall also be subject to the minimum Rules in this Section.

- 9.1.5 Each year, before the date indicated by the TPA, the producer must notify the TPA of the unit's schedule of production of plant products, giving a breakdown by parcel.
- 9.1.6 Plant production records must be compiled in the form of a register and kept available to the TPA at all times at the address of the holding. Such records shall provide at least the following information:
- a. Fertiliser: date of application, type and amount, parcels concerned
 - b. Plant protection products: reason, date of treatment, type of product (including active ingredient), method of treatment, rate and parcels concerned
 - c. Purchase of farm inputs: date, origin, type, amount purchased and the use of the products
 - d. Harvest: date, type and amount of organic or in conversion crop product

In addition, written or documentary accounts must be kept of the nature, quantities and consignees of all agricultural products sold.

Where the unit itself processes its own agricultural produce, the accounts must contain information on the origin, nature and quantities of ingredients, additives and manufacturing aids delivered to the unit and the composition of the processed products.

- 9.1.7 Storage in the unit of input products other than those whose use is compatible with these Rules is not permitted.
- 9.1.8 Products referred to in Section 2 (Scope) may be transported to other operators, only in appropriate packaging or containers closed in a manner preventing substitution of the content and provided with a label stating, without prejudice to any other indications required by law:
- a. the name and address of the person responsible for the production or preparation of the product, or, where another seller is mentioned, a statement which enables the receiving unit and the TPA to identify unequivocally the person responsible for the production of the product;
 - b. the name of the product, including a reference to the organic production method.

The information referred to in points (a) and (b) above may also be presented on an accompanying document, if such a document can be undeniably linked with the packaging, container or vehicular transport of the product. This accompanying document shall include information on the supplier and/or transporter.

- 9.1.9 However, the closing of packaging, containers or vehicles is not required where:
- a. transportation is between a producer and another operator who are both complying with the provisions of the **MAF** official organic assurances programme, and

- b. the products are accompanied by a document giving the information required under 9.1.8.
- c. both the dispatching and receiving operators shall keep documentary records of such transport operations available for the TPA.

9.2 Animals and Animal Products

9.2.1 When the Organic Management Plan applying specifically to animal production is first drawn up, it must include:

- a full description of the animal buildings, grazing and open-air exercise areas, open air runs, etc, and, where applicable, the premises for the storage, packaging and processing of animals, animal products, raw materials and inputs,
- a full description of the installations for the storage of animal manure,
- a plan for spreading manure agreed with the TPA, together with a full description of the areas given over to plant production,
- where appropriate, the arrangements with other farms for spreading of manure,
- a management plan for the unit (e.g. for animal feeding, reproduction, health, etc),
- all practical measures to be taken on the farm to ensure compliance with these Rules.

9.2.2 The general Organic Management Plan requirements in 9.1.1 and 9.1.6 to 9.1.9 covering plants and plant products are applicable to animals and animal products.

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 6, that they are stored in a supervised location and that they are entered in the farm register.

9.2.3 The animals 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.

9.2.4 Animal records must be compiled in the form of a register and kept available to the TPA at all times at the address of the holding.

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 animals arriving at the holding: origin and date of arrival, conversion period, identification mark and veterinary record;
- as regards animals 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 of transhumance (high-country grazing) where restrictions apply;
- as regards disease prevention and treatment and veterinary care: date of treatment, diagnosis, dosage, type of treatment product, the active ingredient(s), method of treatment and practitioner's prescription for veterinary care with reasons and withdrawal periods applying before animal products can be marketed. Where veterinary treatments are used, this information must be declared to the TPA before the livestock or livestock products can be marketed as organic. The treated livestock must be clearly identified.

9.2.5 Where a producer manages both organic and non-organic holdings in the same region, the non-organic units must also be included in the Organic Management Plan. The provisions on animal management, animal records and the principles governing storage of animal husbandry products used must be included. The non-organic units shall also be subject to the general and specific Rules in this Section.

9.3 Units for Preparation of Plant and Animal Products

9.3.1 When the Organic Management Plan is first drawn up, it must include:

- a full description of the unit, showing the facilities used for the processing, 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 with these Rules.

9.3.2 Where products not covered in Section 2 (Scope) are also processed, packaged or stored in the unit concerned:

- the unit must have separate areas within the premises for the storage of products which are covered by Section 2 (Scope), before and after the operations,
- operations must 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 2 (Scope),
- if such operations are not carried out frequently, they must be announced in advance, with a time-scale agreed on with the TPA,
- every measure must be taken to ensure identification of lots and to avoid mixtures with products not obtained in accordance with these Rules.

9.3.3 Products covered by Section 2 (Scope) may be transported to other units only in appropriate packaging or containers closed in a manner preventing substitution of the content and provided with a label stating, 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, or, where another seller is mentioned, a statement which enables

the receiving unit and the TPA to identify unequivocally the person responsible for the preparation of the product;

- the name of the product, including a reference to the organic production method.

9.3.4 On receipt of a product covered by Section 2 (Scope), the operator shall check the closing of the packaging or container where it is required and the presence of the indications referred to in 9.3.3, in 9.1.8 or, on imported product, in Section 12. The result of this check shall be explicitly mentioned in the TPA surveillance reports. Where the check leaves any doubt whether or not the product concerned came from an operator complying with this programme's provisions, if it is to receive official organic assurances, it may proceed to processing or packaging only after elimination of that doubt.

10 Inputs Used in Organic Production

- 10.1 Any inputs used in any part of organic production, processing, cleaning, and packing or for transportation and storage of the product should comply with relevant New Zealand law.
- 10.2 Conditions for use, in organic production, processing, cleaning, packaging and other processes, of certain inputs contained in the lists in Tables 1 to 5 may be specified by **MAF**, on a TPAs recommendation, e.g. its use only in case of absolute necessity, volume, frequency of application, specific purpose etc.
- 10.3 All products and substances shall be of plant, animal, microbial or mineral origin except where products or substances from such sources are not available in sufficient quantities or qualities or if alternatives are not available.
- 10.4 Inputs not authorised at the date of adoption of these Rules for a purpose indicated in Section 4.1(b) may be included in Tables 1 to 5 by **MAF**, on a TPAs recommendation, provided that the following conditions are satisfied:
- a. their use does not result in, or contribute to, unacceptable effects on, or contamination of, the environment;
 - b. Their use is necessary for sustained production and essential for its intended use;
 - c. if they are used for the purpose of plant pest or disease control or for cleaning and disinfecting livestock buildings and installations:
 - they are essential for the control of a harmful organism or a particular disease for which other biological, cultural, physical or breeding alternatives or cultivation practises or other effective management practises are not available, and
 - if products are not of plant, animal, microbial or mineral origin and are not identical to their natural form, they may be authorised only if their conditions of use preclude any direct contact with the seed, the crop, crop products or animals or animal products; however, in the case of perennial crops, direct contact may take place, but only outside the growing season of the edible parts (fruits) provided that such application does not indirectly result in the presence of residues of the product in the edible parts
 - d. if they are used for fertilisation or soil-conditioning purposes, they are essential for specific nutrition requirements of crops or specific soil conditioning purposes which cannot be satisfied by the practices mentioned in Sections 5, 6 and 7
 - e. with regard to minerals and trace elements used in animal nutrition, additional sources for these products may be included in Table 3 provided that they are of natural origin or failing that, synthetic in the same form as natural products.
- 10.5 The conditions provided for in 10.4 do not apply to products which were in common organic farming use in New Zealand before these Rules came into application.
- 10.6 The following may be specified by the TPA, where necessary, for any input included in Tables 1 to 5:

- a detailed description of the input,
- conditions of use and composition and/or solubility requirements, with regard in particular to the need to ensure for these products a minimal presence of residues on edible parts of the crop and on edible crop products, as well as a minimum effect on the environment,
- particular labelling requirements for products obtained with the aid of certain inputs referred to in Tables 1 to 5.

11 Labelling

- 11.1 No agreed label or mark for the MAF official organic assurance has been developed. The official assurances are provided by MAF on a government-to-government basis and relates to product being in compliance with requirements, and not for advertising or marketing purposes.
- 11.2 The labelling of any item requiring an official assurance under this programme may refer to organic production methods only where:
- a. the product was produced by an operator registered to participate in this programme; or
 - b. the product was imported from a third country under the arrangements described in Section 12.
 - c. the labelling refers to the name and/or the MAF-issued code number of the TPA of the operator who has carried out the most recent preparation of the product, and the name or identification number of that operator.
 - d. the product was produced in accordance with these Rules including the requirements that:
 - the product or its ingredients have not been subjected to treatments involving the use of ionising radiation, and
 - the product has been produced without the use of genetically modified organisms and/or any products derived from such organisms;
- 11.3 The labelling of unprocessed plant and animal products described in Section 2.1(a) may refer to organic production methods only where:
- such indications show clearly that they relate to a method of agricultural production, and
 - all the ingredients have been produced in accordance with these Rules
- 11.4 The labelling of processed products described in Section 2.1(b) may refer to organic production methods in the following instances:
- a. on the front panel, where:
 - i. the processed food complies with 8.1.1 to 8.1.5 and 8.2.1 to 8.2.5;
 - ii. at least 95% of its ingredients of agricultural origin by weight, are organic;
 - b. only in the list of ingredients, provided that the food complies with 8.1.3, 8.2.2(a),(b) and (d);
 - c. in the list of ingredients and in the same visual field as the front panel, provided that:
 - i. the main ingredient is a product of hunting or fishing;

- ii. it contains other ingredients of agricultural origin that are all organic;
- iii. the food complies with 8.1.3 and 8.2.2(a),(b)and (d).

The list of ingredients shall indicate which ingredients are organic.

Where points (b) and (c) apply, the references to the organic production method may only appear in relation to the organic ingredients and the list of ingredients shall include an indication of the total percentage of organic ingredients in proportion to the total quantity of ingredients of agricultural origin.

The terms and the indication of percentage referred to in the previous subparagraph shall appear in the same colour, identical size and style of lettering as the other indications in the list of ingredients.

- 11.5 For the purpose of calculating whether 95% of its ingredients of agricultural origin by weight are organic for the purposes of 11.4(a)(ii):
- a. food additives listed in Table 4.1.1 and marked with an asterisk in the column of the additive code number, shall be calculated as ingredients of agricultural origin;
 - b. preparations and substances referred to in Table 4.1.2 to 4.1.5 and substances not marked with an asterisk in the column of the additive code number as in (a) shall not be calculated as ingredients of agricultural origin.
- 11.6 Products labelled in accordance with 11.1 to 11.4 may refer to conversion to organic production methods, provided that:
- a. the requirements in points 11.1 to 11.3 are fully satisfied, with the exception of the conversion period referred to in Section 5.1 which must be at least 12 months;
 - b. such indications do not mislead the purchaser of the product regarding its difference from products which satisfy all the requirements of 11.1 to 11.3;
 - c. the indication takes the form of the words “product under conversion to organic production”, with equal prominence given to all these words;
 - d. the product contains only one crop ingredient of agricultural origin;
 - e. The ingredients of non-agricultural origin are only the substances listed in Table 4.1;
 - f. The product or its ingredients of agricultural origin, referred to in subparagraph (a), have not been subjected to treatments involving the use of substances not listed in Table 4.2.
 - g. The same ingredient in a single product was not derived from an organic source and from a source not complying with these Rules;
- 11.7 If exporters wish to apply labelling which is accepted in the destination market, this is arranged with the importer, but must be truthful. It is subject to verification by the TPA and any obvious misrepresentation will result in the product being removed from eligibility for New Zealand official organic assurances.

11.8 Product not in compliance with the provisions of this programme may not make any claim relating to MAF, MAF or the official organic assurance programme.

12 Imported Product and/or Ingredient

12.1 Organic products legally imported from other countries as ingredients for processed organic products produced under these Rules must be approved by **MAF**. The following requirements must be met:

- a. All importers importing organic products for incorporation into New Zealand organic products and subsequently exported under the **MAF** Official Organic Assurance Programme must be registered with a TPA. The imported product must be certified organic.
- b. The importer must develop an organic management plan that addresses the following points:
 - i. Inclusion of (or reference to) the system of production used to produce the imported product in the country of origin
 - ii. product identification and traceability back to source to ensure the product's certified organic status can be verified
 - iii. details of the certification body that certified the product in the country of origin.

Note A: For imported products incorporated into product for export to the European Community the imported product must have been imported into New Zealand:

- either from the European Community;
- or from a Third Country within the framework of arrangements which are recognised as equivalent to the provisions of Article 33 of Council Regulation (EC) No 834/2007,
- or from a third country whose rules of production and inspection system have been recognised as equivalent to the **MAF** Official Organic Assurance Programme. In these instances the imported product(s) can comprise up to a maximum of 5% of the total product(s) of agricultural origin as ingredients into the final product.

Note B: the certifying body in the country of origin needs to meet at least one of the following criteria: direct oversight by a **MAF** recognised TPA; recognition by USDA; recognition by EC; recognition by Japan MAFF; recognition by AQIS.

12.2 When evaluating the importer's Organic Management Plan the TPA must:

- compare the organic rules of production for the imported product with the **MAF** Technical Rules for Organic Production.
- consider whether the certifying body meets the criteria listed in Note B above.

12.3 If satisfied that the product meets the requirements of the **MAF** Official Organic Assurance Programme the TPA prepares a report for **MAF**. The report includes the comparison on organic production methods, the certifying body and evidence it meets criteria listed in note A, and a recommendation that the product be approved for inclusion into the programme.

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- 12.4 MAF will approve the product for inclusion into the programme if satisfied with the comparison of the organic production methods. MAF may require the TPA to undertake an on-site assessment of the organic production methods in the country of origin.
- 12.5 Each consignment imported under the organic management plan must be accompanied by an assurance from the source country's competent authority or a certifying body specifying that:
- the product was obtained within a system of rules equivalent to the MAF Technical Rules for Organic Production or the EC Regulation 834/2007 and subsequent amendments;
 - The source country's assurance or certificate must accompany the product to the first consignee.
 - The importer must keep the assurance available to the TPA for at least 3 years.
- 12.6 Each consignment must carry adequate identification; and must comply with labelling requirements in Section 11 of the MAF Technical Rules for Organic Production.
- 12.7 Proper separation must be maintained from non-complying product, and from New Zealand product awaiting assessment.
- 12.8 The product must be identifiable and traceable back to source and its organic status can be verified.
- 12.9 Imported organic product trans-shipped through New Zealand (and not further processed or incorporated into New Zealand product) will not be issued with a MAF official organic assurance as it will be deemed to be product of the originating country.

13 Annex I: Approved Inputs

Table 1 - Fertilisers and Soil Conditioners

General conditions for all the products:

- use in accordance with Sections 5, 6, 7 and 8 of these Rules.
- use only fertilisers and soil conditioners that are authorised for use in New Zealand under the ACVM Act and regulations, HSNO Act, or are exempt.
- Operators are to keep documentary evidence of the need to use the product.
- Only the following substances in this section are allowed as fertilisers and soil conditioners for use with organic products exported to the EU, unless specifically prohibited under conditions for use.

Table 1 - Fertilisers and Soil Conditioners			
Name	Description; composition requirements; conditions for use		
Compound products or products containing only materials listed hereunder: Farmyard manure	Product comprising a mixture of animal excrements and vegetable matter (animal bedding) Not from factory farming		
Dried farmyard manure and dehydrated poultry manure	Not from factory farming		
Composted animal excrements, including poultry manure and composted farmyard manure	Not from factory farming		
Liquid animal excrements (slurry, urine, etc.)	Use after controlled fermentation and/or appropriate dilution Not from factory farming		
Composted or fermented household waste	Compost of source separated household waste; which has been submitted to composting or to anaerobic fermentation for biogas production		
	Only vegetable and animal household 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		
Peat	Use limited to horticulture (market gardening, floriculture, arboriculture, nursery)		
Clays (e.g. perlite, vermiculite, etc.)			
Mushroom culture wastes	The initial composition of the substrate must be limited to products of the present list		

Table 1 - Fertilisers and Soil Conditioners	
Name	Description; composition requirements; conditions for use
Dejecta of worms (vermicompost) and insects	
Guano	
Composted or fermented mixture of vegetable matter	Product obtained from mixtures of vegetable matter, which have been submitted to composting or to anaerobic fermentation for biogas production
Products or by-products of animal origin as below: <ul style="list-style-type: none"> - 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 	Maximum concentration in mg/kg of dry matter of Chromium (VI): 0 (limit of determination)
Products and by-products of plant origin for fertilisers (for instance, oilseed cake meal, cocoa husks, malt culms, etc.)	
Seaweeds and seaweed products	As far as directly obtained by: <ul style="list-style-type: none"> (i) physical processes including dehydration, freezing and grinding; (ii) extraction with water or aqueous acid and/or alkaline solution (iii) fermentation
Sawdust and wood chips	Wood not chemically treated after felling
Composted bark	Wood not chemically treated after felling
Wood ash	From wood not chemically treated after felling
Soft ground rock phosphate	Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in point 7 of Annex IA.2 to EC Regulation No 2003/2003. Cadmium content less than or equal to 90 mg/kg of P205

Table 1 - Fertilisers and Soil Conditioners	
Name	Description; composition requirements; conditions for use
Aluminium calcium phosphate	Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in point 6 of Annex IA.2 to EC Regulation No 2003/2003. Cadmium content less than or equal to 90 mg/kg of P2O5 Use limited to basic soils (pH > 7.5)
Basic slag	Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in point 1 of Annex IA.2 to EC Regulation No 2003/2003. Thomas phosphates Thomas slag
Crude potassium salt (for instance: kainit, sylvinit, etc.)	Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in point 1 of Annex IA.3 to EC Regulation No 2003/2003. Obtained by physical procedures but not enriched by chemical processes to increase its solubility.
Potassium sulphate possibly containing magnesium salt	Product derived from crude potassium salt by a physical extraction process and possibly containing also magnesium salts
Stillage and stillage extract	Ammonium stillage excluded
Calcium carbonate of natural origin (for instance: chalk, marl, ground limestone, Breton ameliorant, (märl), phosphate chalk)	
Magnesium and calcium carbonate of natural origin (for instance: magnesian chalk, ground magnesium limestone, etc.)	Only of natural origin
Magnesium sulphate (for instance: kieserite)	Only of natural origin
Calcium chloride solution	Foliar treatment of apple trees, after identification of deficit of calcium
Calcium sulphate (gypsum)	Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in point 1 of Annex ID to EC Regulation No 2003/2003. Only of natural origin
Elemental sulphur	Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in point 3 of Annex ID to EC Regulation No 2003/2003.
Sodium chloride	Mined salt or solar salt obtained from seawater by non-synthetic process.

Table 1 - Fertilisers and Soil Conditioners	
Name	Description; composition requirements; conditions for use
Stone meal and clays	
Mined carbon-based products (e.g. humates)	
Industrial lime from sugar production	By-product of sugar production from sugar beet
Industrial lime from vacuum salt production	By-product of the vacuum salt production from brine found in mountains
Trace elements	<p>Further details including the method of production, essential ingredients, minimum content of nutrients and other requirements can be found in part E of Annex I to EC Regulation No 2003/2003.</p> <p>Boron (Boric acid, Sodium borate, Calcium borate, Boron ethanol amine, Borated fertiliser in solution, Borated fertiliser in suspension)</p> <p>Cobalt (Cobalt salt, Cobalt chelate, Cobalt fertiliser solution)</p> <p>Copper (Copper salt, Copper oxide, Copper hydroxide, Copper chelate, Copper-based fertiliser, Copper fertiliser solution, Copper oxychloride, Copper oxychloride suspension)</p> <p>Iron (Iron salt, Iron chelate, Iron fertiliser solution)</p> <p>Manganese (Manganese salt, Manganese chelate, Manganese oxide, Manganese-based fertiliser, Manganese-based fertiliser solution)</p> <p>Molybdenum Sodium molybdate, Ammonium molybdate, Molybdenum-based fertiliser, Molybdenum-based fertiliser solution)</p> <p>Zinc (Zinc salt, Zinc chelate, Zinc oxide, Zinc-based fertiliser, Zinc-based fertiliser solution)</p>

Table 2 - Pesticides

2.1 Products for plant protection

General conditions applicable for all the products composed or containing the following active substances:

- use in accordance with provisions of Sections 4, 5, 6 and 7 of these Rules.
- use only pesticides that are authorised for use in New Zealand under the ACVM Act and regulations, and the HSNO Act, or are exempt.
- Operators shall keep documentary evidence of the need to use the product.
- Only the following substances in this section are allowed as pesticides for use with organic products, unless specifically prohibited under conditions for use.

2.1 Products for plant protection		
	Name	Description; composition requirements; conditions for use
2.1.1 Substances of crop or animal origin	Azadirachtin extracted from <i>Azadirachta indica</i> (Neem tree)	Insecticide;
	Beeswax	Pruning agent
	Gelatine	Insecticide
	Hydrolysed proteins	Attractant Derived without chemical treatment other than oil extraction using organic solvent. Only in authorised applications in combination with other appropriate products of this Table 2.
	Lecithin	Fungicide
	Plant oils (e.g. mint oil, pine oil, caraway oil).	Insecticide, acaricide, fungicide, sprout inhibitor and foliage suppressant (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, walkways etc.
	Pyrethrins extracted from <i>Chrysanthemum cinerariaefolium</i> .	Insecticide Use of piperonyl butoxide as a synergist is prohibited
Quassia extracted from <i>Quassia amara</i>	Insecticide, repellent	
2.1.2 Micro-organisms used for biological pest control	Micro-organisms (bacteria, viruses and fungi) e.g. <i>Bacillus thuringensis</i> , <i>Granulosis virus</i> , etc.	

2.1 Products for plant protection		
	Name	Description; composition requirements; conditions for use
2.1.3 Substances produced by micro-organisms	Spinosad	Insecticide Only where measures are taken to minimize the risk to key parasitoids and to minimize the risk of development of resistance
2.1.4 Substances to be used in traps and/or dispensers General conditions: <ul style="list-style-type: none"> the traps and/or dispensers must prevent the penetration of the substances in the environment and prevent contact of the substances with the crops under cultivation. the traps must be collected after use and disposed of safely. 	Diammonium phosphate	Attractant; Only in traps
	Pheromones	Attractant, sexual behaviour disrupter; Only in traps and dispensers.
	Pyrethroids (only deltamethrin or lambda-cyhalothrin)	Insecticide; only in traps with specific attractants; only against <i>Bactrocera oleae</i> and <i>Ceratitis capitata</i> Wied.
2.1.5 Preparation to be surface-spread between cultivated plants	Ferric phosphate (iron (III) orthophosphate)	Molluscicide
2.1.6 Other substances from traditional use in organic farming	Copper in the form of copper hydroxide, copper oxychloride, (tribasic) copper sulphate, cuprous oxide, copper octanoate	Fungicide; up to 6 kg copper per ha per year For perennial crops the 6 kg copper limit can be exceeded in a given year provided that the average quantity actually used over a 5-year period consisting of that year and of the four preceding years does not exceed 6 kg
	Ethylene	Degreening bananas, kiwis and kakis; Degreening of citrus fruit only as part of a strategy for the prevention of fruit fly damage in citrus; Flower induction of pineapple; sprouting inhibition in potatoes and onions
	Lime sulphur (calcium polysulphide)	Fungicide, insecticide, acaricide;
	Paraffin oil	Insecticide, acaricide
	Fatty acid potassium salt (soft soap)	Insecticide

2.1 Products for plant protection		
	Name	Description; composition requirements; conditions for use
	Mineral oils	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.
	Quartz sand	Repellent
	Sulphur	Fungicide, acaricide, repellent.
2.1.7 Other Substances	Calcium hydroxide	Fungicide For control of blackspot and mildew control.
	Potassium bicarbonate	Fungicide

2.2 Products for pest and disease control in livestock buildings and installations:

Name	Description; composition requirements; conditions for use
Rodenticides	

Table 3 - Feed Materials

General conditions for all the products:

- use only feed materials that are authorised for use in New Zealand under the ACVM Act and regulations, HSNO Act, or are exempt.
- The following substances in this section are allowed as feed materials for use with organic products exported to the EU only.

3.1 Feed materials from plant origin

3.1.1 Cereals, grains, their products and by-products. Only the following substances are included in this category:	Oats as grains, flakes, middlings, hulls and bran;	wheat as grains, middlings, bran, gluten feed, gluten and germ
	barley as grains, protein and middlings;	spelt as grains
	rice germ expeller	triticale as grains
	millet as grains	maize as grains, bran, middlings, germ expeller and gluten
	rye as grains and middlings	malt culms
	sorghum as grains	brewers' grains
3.1.2 Oil seeds, oil fruits, their products and by-products. The following substances are included in this category:	Rape seed, expeller, and hulls	sesame seed as expeller
	soya bean as bean, toasted, expeller and hulls	palm kernels as expeller
	sunflower seed as seed and expeller	pumpkin seed as expeller
	cotton as seed and seed expeller	olives, olive pulp
	linseed as seed and expeller	vegetable oils (from physical extraction)
3.1.3 Legume seeds, their product and by-products. Only the following substances are included in this category:	Chick peas as seeds, middlings and bran	broad beans as seeds, middlings and bran
	ervil as seeds, middlings and bran	horse beans as seeds middlings and bran
	chickling vetch as seeds submitted to heat treatment, middlings and bran	vetches as seeds, middlings and bran
	peas as seeds, middlings, and bran	lupin as seeds, middlings and bran
3.1.4 Tuber roots, their products and by-products. Only the following substances are	Sugar beet pulp	potato starch
	Potato	potato protein
	sweet potato as tuber	manioc

included in this category:	potato pulp (by-product of the extraction of potato starch)	
3.1.5 Other seeds and fruits, their products and by-products. Only the following substances are included in this category:	Carob	chestnuts
	carob pods and meals thereof	walnut expeller
	Pumpkins	hazelnut expeller
	citrus pulp	cocoa husks and expeller
	apples, quinces, pears, peaches, figs, grapes and pulps thereof	acorns
3.1.6 Forages and roughages. Only the following substances are included in this category:	Lucerne	grass meal
	lucerne meal	hay
	Clover	silage
	clover meal	straw of cereals
	grass (obtained from forage plants),	root vegetables for foraging
3.1.7 Other plants, their products and by-products. Only the following substances are included in this category:	Molasses	plant protein extracts (solely provided to young animals)
	seaweed meal (obtained by drying and crushing seaweed and washed to reduce iodine content)	spices
	powders and extracts of plants	herbs

3.2 Feed materials from animal origin

3.2.1 Milk and milk products. Only the following substances are included in the category:	Raw milk	whey, whey powder, whey powder low in sugar, whey protein powder (extracted by physical treatment)
	milk powder	casein powder
	skim milk, skim-milk powder	lactose powder
	buttermilk, buttermilk powder	curd and sour milk
3.2.2 Fish, other marine animals, their products and by-products. Only the following substances are included in the category under the following restrictions: Products originate only from sustainable fisheries and to be used only for species other than herbivores:	Fish	hydrolysate and proteolysates obtained by an enzyme action, whether or not in soluble form, solely provided to young animals
	fish oil and cod-liver oil not refined	Fish meal
	fish molluscan or crustacean autolysates	
3.2.3 Eggs and egg products.	Eggs and egg products for use as poultry feed, primarily from the	

	same housing.
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3.3 Feed materials from mineral origin.

Only the following substances are included in this category:

<p>Sodium:</p> <ul style="list-style-type: none"> unrefined sea salt coarse rock salt sodium sulphate sodium carbonate sodium bicarbonate sodium chloride 	<p>Calcium:</p> <ul style="list-style-type: none"> lithotamnion and maerl shells of aquatic animals (including cuttlefish bones) calcium carbonate calcium lactate calcium gluconate
<p>Phosphorus:</p> <ul style="list-style-type: none"> defluorinated dicalcium phosphate defluorinated monocalcium phosphate monosodium phosphate calcium-magnesium phosphate calcium-sodium phosphate 	<p>Magnesium:</p> <ul style="list-style-type: none"> magnesium sulphate magnesium chloride magnesium carbonate magnesium oxide (anhydrous magnesia) magnesium phosphate
<p>Sulphur:</p> <ul style="list-style-type: none"> sodium sulphate 	<p>Potassium:</p> <ul style="list-style-type: none"> Potassium chloride

3.4 Feed additives

<p>3.4.1 Trace elements.</p> <p>Only the following substances are included in this category:</p>	<p>Iron:</p> <ul style="list-style-type: none"> ferrous (II) carbonate ferrous (II) sulphate monohydrate and/or heptahydrate ferric (III) oxide 	<p>Iodine:</p> <ul style="list-style-type: none"> calcium iodate, anhydrous calcium iodate, hexahydrate sodium iodide
	<p>Cobalt:</p> <ul style="list-style-type: none"> cobaltous (II) sulphate monohydrate and/or heptahydrate basic cobaltous (II) carbonate, monohydrate 	<p>Copper:</p> <ul style="list-style-type: none"> copper (II) oxide basic copper (II) carbonate, monohydrate copper (II) sulphate, pentahydrate
	<p>Manganese:</p> <ul style="list-style-type: none"> Manganous (II) carbonate 	<p>Zinc:</p> <ul style="list-style-type: none"> zinc carbonate

	manganous oxide and manganic oxide manganous (II) sulphate, mono- and/or tetrahydrate	zinc oxide zinc sulphate mono- and/or hepta-hydrate
	Molybdenum: Ammonium molybdate, sodium molybdate	Selenium: sodium selenate sodium selenite
3.4.2 Vitamins, provitamins and chemically well defined substances having a similar effect, and other items also legally available. Only the following substances are included in this category:	<p>Vitamins approved for use under NZ Legislation:</p> <ul style="list-style-type: none"> derived from raw materials occurring naturally in feeds, or synthetic vitamins identical to natural vitamins only for mono-gastric animals. <p>By derogation from the first paragraph, the TPA may authorise the use of synthetic vitamins A, D and E for ruminants in so far as the following conditions are met:</p> <ul style="list-style-type: none"> the synthetic vitamins are identical to the natural vitamins, and the authorisation issued by the TPA is founded on precise criteria. <p>Producers may benefit from this authorisation only if they have demonstrated to the satisfaction of the MAF that the health and welfare of the animals cannot be guaranteed without the use of these synthetic vitamins.</p>	
3.4.3 Enzymes.	<p>Only the following substances are included in this category:</p> <p>Enzymes approved for use under NZ Legislation;</p>	
3.4.4 Micro-organisms.	<p>Only the following substances are included in this category:</p> <p>Micro-organisms approved for use under NZ Legislation;</p>	
3.4.5 Preservatives. Only the following substances are included in this category:	E236 Formic acid*	E260 Acetic acid*
	E270 Lactic acid*	E280 Propionic acid*
	E200 Sorbic acid	E330 Citric acid
	* For silage: only when weather conditions do not allow for adequate fermentation	
3.4.6 Binders, anti-caking agents and coagulants. Only the following substances are included in this category:	E551b Colloidal silica	E551c Kieselgur
	E558 Bentonite	E559 Kaolinitic clays
	E561 Vermiculite	E562 Sepiolite
	E599 Perlite	E470 Calcium stearate of natural origin
	E560 Natural mixtures of stearites and chlorite	
3.4.7 Antioxidant substances.	<p>Only the following substances are included in this category:</p> <p>E 306* Tocopherol-rich extracts of natural origin used as an antioxidant</p>	
3.4.8 Silage additives	Enzymes, yeasts and bacteria can be used as silage additives	The use of lactic, formic, propionic and acetic acid in the production of silage shall only be permitted when weather conditions do not

		allow for adequate fermentation
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3.5 Certain products used in animal nutrition

Only the following products are included in this category	<i>Saccharomyces cerevisiae</i>	<i>Saccharomyces carlsbergiensis</i>
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3.6 Processing aids used in feeds

3.6.1 Processing aids for silage Only the following substances are included in this category:	Sea salt	sugar beet pulp
	coarse rock salt	cereal flour
	whey	molasses
	sugar	

Table 4 - Ingredients, Processing Aids

General Principles

Processing and manufacturing methods should be mechanical, physical or biological (such as fermentation and smoking).

Table 4 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, referred to in Section 2.1.1 (b) of these Rules.

Notwithstanding reference to any ingredient in Parts 1 and 3 or any processing aid in Part 2 of this Table, 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 as well as in minimum quantities necessary for desired results.

Food additives in Table 4.1.1 marked with an asterisk in the column of the additive code number, shall be calculated as ingredients of agricultural origin, for the purpose of calculating whether 95% of its ingredients of agricultural origin by weight are organic for the purposes of 11.4(a)(ii).

4.1 Ingredients of Non-Agricultural Origin

4.1.1 Food additives, including carriers		
Code	Name	Specific conditions
E 153	Vegetable carbon	Ashy goat cheese Morbier cheese For preparation of foodstuffs of animal origin
E 160b*	Annatto, Bixin, Norbixin	Red Leicester cheese Double Gloucester cheese Cheddar Mimolette cheese For preparation of foodstuffs of animal origin
E 170	Calcium carbonates	Shall not be used for colouring or calcium enrichment of products. For preparation of foodstuffs of plant and animal origin
E 220 or E 224	Sulphur dioxide Potassium metabisulphite	In fruit wines (*) without added sugar (including cider and perry) or in mead: 50 mg (**) For preparation of foodstuffs of plant and animal origin For cider and perry prepared with addition of sugars or juice concentrate after fermentation: 100 mg (**) For preparation of foodstuffs of plant and animal origin

4.1.1 Food additives, including carriers		
Code	Name	Specific conditions
		(*) In this context, 'fruit wine' is defined as wine made from fruits other than grapes. (**) Maximum levels available from all sources, expressed as SO ₂ in mg/l.
E 250 or E 252	Sodium nitrite Potassium nitrate	For meat products (1): For preparation of foodstuffs of animal origin For E 250: indicative ingoing amount expressed as NaNO ₂ : 80 mg/kg For E 252: indicative ingoing amount expressed as NaNO ₃ : 80 mg/kg For E 250: maximum residual amount expressed as NaNO ₂ : 50 mg/kg For E 252: maximum residual amount expressed as NaNO ₃ : 50 mg/kg
E 270	Lactic acid	For preparation of foodstuffs of plant and animal origin
E 290	Carbon dioxide	For preparation of foodstuffs of plant and animal origin
E 296	Malic acid	DL-Malic acid, For preparation of foodstuffs of plant origin
E 300	Ascorbic acid	Ascorbic acid (L-) Meat products For preparation of foodstuffs of plant and animal origin
E 301	Sodium ascorbate	Meat products in connection with nitrates and nitrites For preparation of foodstuffs of animal origin
E 306	Tocopherol-rich extract	anti-oxidant in fats and oils For preparation of foodstuffs of plant and animal origin
E 322*	Lecithins	Milk products For preparation of foodstuffs of plant and animal origin
E 325	Sodium lactate	Milk-based and meat products For preparation of foodstuffs of animal origin
E 330	Citric acid	For preparation of foodstuffs of plant origin
E 331	Sodium citrate	For preparation of foodstuffs of animal origin
E 333	Calcium citrates	For preparation of foodstuffs of plant origin
E 334	Tartaric acid (L(+)-)	For preparation of foodstuffs of plant origin
E 335	Sodium tartrate	For preparation of foodstuffs of plant origin
E 336	Potassium tartrate	For preparation of foodstuffs of plant origin
E 341 (i)	Mono calcium phosphate	Raising agent for self raising flour For preparation of foodstuffs of plant origin

4.1.1 Food additives, including carriers		
Code	Name	Specific conditions
E 400	Alginic acid	Milk-based products For preparation of foodstuffs of plant and animal origin
E 401	Sodium alginate	Milk-based products For preparation of foodstuffs of plant and animal origin
E 402	Potassium alginate	Milk-based products For preparation of foodstuffs of plant and animal origin
E 406	Agar	Milk-based and meat products For preparation of foodstuffs of plant and animal origin
E 407	Carrageenan	Milk-based products For preparation of foodstuffs of plant and animal origin
E 410*	Locust bean gum	For preparation of foodstuffs of plant and animal origin
E 412*	Guar gum	For preparation of foodstuffs of plant and animal origin
E 413	Tragacanth gum	
E 414*	Arabic gum	For preparation of foodstuffs of plant and animal origin
E 415	Xanthan gum	For preparation of foodstuffs of plant and animal origin
E 416	Karaya gum	
E 422	Glycerol	For plant extracts For preparation of foodstuffs of plant origin
E 440 (i)*	Pectin	Milk-based products For preparation of foodstuffs of plant and animal origin
E 464	Hydroxypropyl methyl cellulose	Encapsulation material for capsules For preparation of foodstuffs of plant and animal origin
E 500	Sodium carbonates	'Dulce de leche' and soured-cream butter and sour milk cheese For preparation of foodstuffs of plant and animal origin
E 501	Potassium carbonates	For preparation of foodstuffs of plant origin
E 503	Ammonium carbonates	For preparation of foodstuffs of plant origin
E 504	Magnesium carbonates	For preparation of foodstuffs of plant origin
E 509	Calcium chloride	Milk coagulation For preparation of foodstuffs of animal origin
E 516	Calcium sulphate	Carrier and coagulating agent

4.1.1 Food additives, including carriers		
Code	Name	Specific conditions
		For preparation of foodstuffs of plant origin
E 524	Sodium hydroxide	surface treatment of Laugengebäck For preparation of foodstuffs of plant origin
E 551	Silicon dioxide	Anti-caking agent for herbs and spices Gel or colloidal solution For preparation of foodstuffs of plant origin
E 553b	Talc	Coating agent for meat products For preparation of foodstuffs of plant and animal origin
E 938	Argon	For preparation of foodstuffs of plant and animal origin
E 939	Helium	For preparation of foodstuffs of plant and animal origin
E 941	Nitrogen	For preparation of foodstuffs of plant and animal origin
E 948	Oxygen	For preparation of foodstuffs of plant and animal origin

4.1.2 Flavourings	Substances and products labelled as natural flavouring substances or natural flavouring preparations.
4.1.3 Water and salt	Drinking water Salt (with sodium chloride or potassium chloride as basic components), generally used in food processing.
4.1.4 Micro-organism preparations	Any preparations of micro-organisms normally used in food processing, with the exception of genetically modified micro-organisms;
4.1.5 Minerals (trace elements included), vitamins, amino acids and other nitrogen compounds	Minerals (trace elements included), vitamins, amino acids and other nitrogen compounds, only authorized as far their use is legally required in the foodstuffs in which they are incorporated.

4.2 Processing Aids and Other Products which may be used in Organic Production of Ingredients of Agricultural Origin

Name	Specific conditions
Water	For preparation of foodstuffs of plant and animal origin
Calcium chloride	coagulation agent For preparation of foodstuffs of plant origin
Calcium carbonate	For preparation of foodstuffs of plant origin
Calcium hydroxide	For preparation of foodstuffs of plant origin

Name	Specific conditions
Calcium sulphate	coagulation agent For preparation of foodstuffs of plant origin
Magnesium chloride (or nigari)	coagulation agent For preparation of foodstuffs of plant origin
Potassium carbonate	drying of grapes For preparation of foodstuffs of plant origin
Sodium carbonate	Sugar(s) production, For preparation of foodstuffs of plant origin
Citric acid	pH regulation of salt bath for cheeses Oil production and hydrolysis of starch For preparation of foodstuffs of plant and animal origin
Sodium hydroxide	Sugar production oil production from rape seed (<i>Brassica</i> spp) For preparation of foodstuffs of plant origin
Sulphuric acid	Sugar(s) production, Gelatine production For preparation of foodstuffs of plant and animal origin
Carbon dioxide	For preparation of foodstuffs of plant and animal origin
Lactic acid	pH regulation of salt bath for cheeses For preparation of foodstuffs of animal origin
Nitrogen	For preparation of foodstuffs of plant and animal origin
Ethanol	Solvent, For preparation of foodstuffs of plant and animal origin
Tannic acid	filtration aid, For preparation of foodstuffs of plant origin
Egg white albumen	For preparation of foodstuffs of plant origin
Casein	For preparation of foodstuffs of plant origin
Gelatin	For preparation of foodstuffs of plant origin
Isinglass	For preparation of foodstuffs of plant origin
Vegetable oils	greasing, releasing or anti-foaming agent, For preparation of foodstuffs of plant and animal origin

Name	Specific conditions
Silicon dioxide gel or colloidal solution	For preparation of foodstuffs of plant origin
Activated carbon	For preparation of foodstuffs of plant origin
Talc	For preparation of foodstuffs of plant origin In compliance with the specific purity criteria for food additive E 553b
Bentonite	For preparation of foodstuffs of plant and animal origin Sticking agent for mead In compliance with the specific purity criteria for food additive E 559
Kaolin	For preparation of foodstuffs of plant and animal origin
Diatomaceous earth	Gelatine production For preparation of foodstuffs of plant and animal origin
Perlite	Gelatine production For preparation of foodstuffs of plant and animal origin
Hazelnut shells	For preparation of foodstuffs of plant origin
Rice meal	For preparation of foodstuffs of plant origin
Beeswax	releasing agent For preparation of foodstuffs of plant origin
Carnauba wax	Releasing agent For preparation of foodstuffs of plant origin
Hydrochloric acid	Gelatine production For the regulation of the pH of the brine bath in the processing of Gouda-, Edam and Maasdammer cheeses, Boerenkaas, Friese and Leidse Nagelkaas For preparation of foodstuffs of animal origin
Ammonium hydroxide	Gelatine production For preparation of foodstuffs of animal origin
Hydrogen peroxide	Gelatine production For preparation of foodstuffs of animal origin
Cellulose	Gelatine production (1) For preparation of foodstuffs of plant and animal origin

4.3 Ingredients of Agricultural Origin Which Have Not Been Produced Organically

Able to be used when the same organic products are not available commercially

4.3.1 Unprocessed vegetable products as well as products derived therefrom by processes referred to under definition in Section 4.2(a):		
4.3.1.1 Edible fruits, nuts and seeds:	Acorns (<i>Quercus</i> spp)	Raspberries (dried) (<i>Rubus idaeus</i>)
	Cola nuts (<i>Cola acuminata</i>)	Red currants (dried) (<i>Ribes rubrum</i>)
	Gooseberries (<i>Ribes uva-crispa</i>)	Maracujas (passionfruit) (<i>Passiflora edulis</i>)
4.3.1.2 Edible spices and herbs:	pepper (peruvian) <i>Schinus molle</i> L	safflower flowers <i>Carthamus tinctorius</i>
	horseradish seeds <i>Armoracia rusticana</i>	watercress herb <i>Nasturtium officinale</i>
	lesser galanga <i>Alpinia officinarum</i>	
4.3.1.3 Miscellaneous:	algae, including seaweed, permitted in conventional foodstuffs preparation	
4.3.2 Vegetable products, processed by processes as referred to under definition 2(b):		
4.3.2.1 Fats and oils whether or not refined, but not chemically modified, derived from plants other than:	Cocoa (<i>Theobroma cacao</i>)	Rape (<i>Brassica napus, rapa</i>)
	Coconut (<i>Cocos nucifera</i>)	Safflower (<i>Carthamus tinctorius</i>)
	Olive (<i>Olea europaea</i>)	Sesame (<i>Sesamum indicum</i>)
	Sunflower (<i>Helianthus annuus</i>)	Soya (<i>Glycine max</i>)
	Palm (<i>Elaeis guineensis</i>)	
4.3.2.2 Sugars; starch; other products from cereals and tubers:	fructose	unleavened bread paper
	rice paper	starch from rice and waxy maize, not chemically modified
4.3.2.3 Miscellaneous:	pea protein (<i>Pisum</i> spp)	rum: only obtained from cane sugar juice
	kirsch prepared on the basis of fruits and flavourings as referred to in Section A.2 of this Table	
4.3.3 Animal products:		
Aquatic organisms, not originating from aquaculture, and permitted in conventional foodstuffs preparation	whey powder "herasuola"	
gelatin	casings	

Table 5 - Cleaning Aids and Disinfectants for Livestock Production

Alcohol	Natural essences of plants
Caustic potash	Nitric acid (dairy equipment)
Caustic soda	Phosphoric acid (dairy equipment)
Citric, peracetic acid, formic, lactic, oxalic and acetic acid	Potassium and sodium soap
Cleaning and disinfection products for teats and milking facilities	Quicklime
Formaldehyde	Sodium carbonate
Hydrogen peroxide	Sodium hypochlorite (e.g. as liquid bleach)
Lime	Water and steam
Milk of lime	

14 Annex II: Animal Stocking Rates and Housing Space

NOTE: The animal stocking rates listed in this table are only applicable to production units where the spreading of animal manure from animals' housing on to pasture is undertaken.

Table 6.1 Maximum number of animals per hectare

Class or species	Maximum number of animals per ha equivalent to 170 kg 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 one to less than two years old	3.3
Female bovine animals from one to less than two years old	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
Sheep	13.3
Goats	13.3
Piglets	74
Breeding sows	6.5
Pigs for fattening	14
Other pigs	14
Table chickens	580
Laying hens	230

Table 6.2 Minimum surface areas indoors and outdoors and other characteristics of housing in the different species and types of production

6.2.1 Bovines, Cervines (i.e. farmed deer), Ovines and Pigs

	Indoors area (net area available to animals)		Outdoors area (exercise area, excluding grazing)
	Live weight minimum (kg)	m ² /head	m ² /head
Breeding and fattening bovine, cervine (i.e. farmed deer), and equidae	up to 100	1.5	1.1
	up to 200	2.5	1.9
	up to 350	4.0	3
	over 350	5 with a minimum of 1m ² /100kg	3.7 with a minimum of 0.75 m ² /100kg
Dairy cows		6	4.5
Bulls for breeding		10	30
Sheep and goats		1.5 sheep/goat	2.5
		0.35 lamb/kid	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	0.8	0.6
	up to 85	1.1	0.8
	up to 110	1.3	1
Piglets	over 40 days and up to 30 kg	0.6	0.4
Brood pigs		2.5 female	1.9
		6.0 male If pens are used for natural service: 10m ² /boar	8.0

6.2.2 Poultry

	Indoors area (net area available to animals)			Outdoors area (m ² of area available in rotation/head)
	No animals/m ²	cm perch/animal	nest	
Laying hens	6	18	7 laying hens per nest or in case of common nest 120 cm ² /bird	4 ^(#)
Fattening poultry (in fixed housing)	10 with a maximum of 21 kg live-weight/ m ²	20 (for guinea fowl only)		4 broilers and guinea fowl ^(#) 4.5 ducks ^(#) 10 turkey ^(#) 15 geese ^(#)
Fattening poultry (in mobile housing)	16 ^(#) in mobile poultry houses with a maximum of 30 kg live-weight/ m ²			2.5 ^(#)

^(#) only in the case of mobile houses not exceeding 150m² floor space

