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Replace GB/T 19630.1~19630.4-2011

# Organic products—Requirements for production, processing, labeling and management system

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## content

# Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1 -2009..

This standard replaces GB/T 19630.1-2011 “Organic Products Part 1: Production”, GB/T 19630.2-2011 “Organic Products Part 2: Processing", GB/T 19630.3-2011 “Organic Products Part 3: Labeling and Marketing”, GB/T 19630.4-2011 “Organic Products Part 4: Management System”. Compared with GB/T 19630.1～GB/T 19630.4-2011, the main technical changes are as follows:

-This standard combines the contents of the corresponding provisions of GB/T 19630.1~GB/T 19630.4 - 2011 into scope, normative references, terms and definitions, production, processing, labelling and marketing, and management system, respectively, and the serial numbers of the corresponding sub-articles are adjusted in turn according to the existing framework;

- The scope was revised and the scope of GB/T 19630.1～GB/T 19630.4-2011 was merged, the content remains unchanged (see 1);

- GB 9137 was deleted from the normative references, GB 20814 was added, and GB 2760 was changed without reference to the year;;

- all the original terms and definitions in GB/T 19630.1～GB/T 19630.4-2011 were merged, the definition of organic agriculture and biodiversity, modify the description of processing aids according to GB 2760 were deleted, and the description of organic products, organic producers, organic processors, and organic handlers was revised; the definitions of organic production and organic processing were added (see 3);

- The requirements for continuous improvement of the production environment were dded , the soil quality requirements were revised, and "GB 9137 maximum allowable concentration of air pollutants for crop protection" was deleted (see 4.2.3)；

-The cleaning agents and disinfectants allowed for plant production were added (see 4.2.11.4);

- "Wild plant collection" was changed into "wild collection" (see 4.3);

- The requirements of 5.1.5 for the conversion period of wild collection and mushroom cultivation in GB/T 19630.1-2011 are deleted, and the relevant contents are added in this standard (see 4.3,4.4);

- The requirements of the environmental conditions for the wild collection area were modified (see 4.3.2);

- The protected objects of wild collection activities were changed from "animal and plant species" to "biological species" (see 4.3.4);

- The requirements for feed harvesting and post-harvest handling, packaging, storage and transportation were added (see 4.5.4.1);

- The requirements for outdoor sports of livestock and poultry were revised (see 4.5.5.3);

- The requirement of colorant was modified (see 4.5.4.11d);

- Microbial preparations were added for the prevention and control of livestock and poultry diseases (see 4.5.6.3);

- "Prohibited substances" was ammended to "antibiotics or chemically synthesized veterinary drugs (except for anthelmintics)" (see 4.5.8.5);

- "The use of state-approved rodenticide in a way that is safe for livestock and poultry" was deleted;

- "Aquaculture and fishing areas" and "organic aquaculture farms and open water harvesting areas" were modified to "ranges of organically produced waters" (see 4.6.2.2, 4.6.3);

- The provision of"or permitted by certification body" in aquatic bait was removed;

- The times of drug use for the prevention and treatment of aquatic diseases were added and the requirement for isolation was removed (see 4.6.6.5)；

- The organic conversion components were removed from the ingredient;

- The "corresponding national standards" was changed into GB 5749 and GB 2721 (see 5.2.1.4);

- The provision of "The following substances can be used as disinfectants for the processing process: ethanol, calcium hypochlorite, sodium hypochlorite, chlorine dioxide and hydrogen peroxide. Disinfectants shall be approved by the state competent authority. The use of disinfectants with residues of toxic and harmful substances is not allowed" was modified into" the use of steam and, if necessary, the detergents and disinfectants listed in table E.3 can be allowed to use ", the cleaning agents and disinfectants allowed be used in processing sites and equipment and facilities were clarified (see 5.2.3.3);

- In the packaging part, the requirements of raw materials and product packaging materials were added (see 5.2.4.2);

- The range of packaging fillers was added, not limited to carbon dioxide and nitrogen (see 5.2.4.4);

- In the storage part, "dry" was deleted ; the storage requirements for packaging materials and ingredients of organic products were added (see 5.2.5.4);

- "Remark" was changed into "labelling" (see 5.2.6.3);

- "100%" was deleted; It is further clarified that the slurry is "sizing slurry" (see 5.3.2.9);

The provision of""conversion to organic product" shall only be used on products which have been certified as conversion to organic" was deleted. The provision of "Labeling of products shall not mislead consumers, with products of conventional labeled as conversion to organic, or products of conversion to organic labeled as organic" was revised to "Labeling of products shall not mislead consumers, with products of conventional and conversion to organic labeled as organic" (see 6.1.3);

- The requirements for the labelling of organic products were consolidated (see 6.1);

- The provision of "The sellers shall request suppliers to provide organic products transaction certificate when they stock organic products " was revised, and the provisions of "less than 95% of the certified organic ingredients may be labeled as Produced with Organic Ingredients" and "the source of organic products should be proved" were deleted, (see 6.4.2);

- The labelling requirement for the product with the ingredient no less than 95% of the organic conversion product has been deleted；

The requirements of product identification words and patterns with organic ingredients

content less than 95% or organic ingredients content higher than or equal to 95% but without organic product certification were deleted;

—The product identification requirements for organic conversion products with ingredient content less than 95%, equal to or higher than 70% were deleted;

—The requirements for identification of processed products with organic ingredients content less than 70% were deleted;

—The product identification requirement that the content of organic conversion ingredients is less than 70% is deleted;

—The requirements of graphics and color for organic conversion product logo were deleted;

—The requirements for marking organic conversion products are deleted;

For products sold in bulk, products without packaging and live animal, organic dedicated sales or display counter shall be set up in marketing areas and be separated from counter or area for non-organic products.

The provision of “For the products in bulk, products without packaging, and live animal products, the Organic Product Certification Mark of China and copy of the certificate shall be shown in appropriate position at organic sales location.” was revised to “For the products in bulk, products without packaging, and live animal products, organic dedicated sales or display counter shall be set up in marketing areas and be separated from counter or area for non-organic products. the Organic Product. The copy of the certificate shall be shown in prominent position” (see 6.4.4);

- The requirement for printing the logo of organic conversion products has been deleted；

- The frequency of internal inspections was increased (see 7.4.2);

- The classification of some soil fertilization and improvement materials was adjusted and divided, and the "natural microbial preparations" was changed to "microorganisms and microbial preparations" (see Table A.1);

- Plant protection products such as tea saponins (extracts such as tea seeds), saponins (extracts such as saponins), physical measures (such as color / odor traps, mechanical traps, etc.), Mulch (straw, weed, mulch, insect net, etc.) was supplemented (see Table A.2);

- The condition of copper salts application was modified and the limit of use was added (see Table A.2);

- Iron sulfate (trivalent iron) was changed to iron phosphate (trivalent iron) (see Table A.2);

- According to the latest "Catalogue of Feed Additives", potassium was added, the varieties of additives such as iron, iodine, cobalt, copper and calcium were adjusted, and some products were combined and classified (see Table B.1);

- "Peracetic acid" was changed to "Peroxyacetic acid" (see Appendix B.2);

- Iodine varieties and conditions of use were modified (see Table B.2);

- Compared with the latest GB 2760, the substances and use conditions in the list of "Food additives, processing aids and other substances allowed in organic food processing" were sorted out; Sulfur, phospholipids, gellan gum, mogrosides, hydrogen carbonate Sodium was added as

food additives, solidified tannin was deleted, and gelatin, citric acid, L-malic acid, sodium bicarbonate and phospholipids were added as processing aids (see Appendix E);

- Detergents and disinfectants allowed in organic food processing were added in Table E.3 (see Appendix E);

- Enzyme preparation was added in Appendix E 5: the genetic modified organisms and their products were excluded (see Appendix E);

- The requirements for minerals (including trace elements), vitamins and amino acids used in product processing were integrated into other ingredients in Appendix E (see E.6);

- The list of feed additives was evised, substances were addied such as ferric trioxide, potassium (potassium chloride, potassium carbonate, potassium bicarbonate), methionine, etc., deleted calcium iodate hexahydrate, Bacillus licheniformis, Bacillus subtilis, and bifidus Bacillus, Enterococcus faecalis, Enterococcus faecium, Enterococcus lactis, Lactobacillus acidophilus, Lactobacillus casei, Lactobacillus lactis, Lactobacillus plantarum, Pediococcus lactis, Pediococcus pentosaceus, Candida saccharomyces, Saccharomyces cerevisiae, Marsh Pseudomonas rubrum, Lactobacillus bulgaricus (for pigs, chickens and silage only) (see Appendix F);

- Table 1 in textile processing was deleted and the content was added to Appendix H.

Please note that some contents of this document may involve patents. The issuing authority of this document shall not be responsible for identifying these patents.

This standard was proposed by Certification and Accreditation Administration of China.

This standard was drafted: Certification and Supervision Department of State Administration For Market Regulation;, Certification and Technology Research Center of State Administration For Market Regulation, Organic Food Development and Certification Center of China (OFDC), Hangzhou WIT Assessment Co., Ltd. (WIT), China Agricultural University, China Organic Food Certification Center (COFCC), Beijing Continental Hengtong Certification Co., Ltd. (CHTC), China National Accreditation Center for Conformity Assessment, Tea Research Institute of Chinese Academy of Agricultural Sciences, Nanjing Agricultural University, Shandong Environmental Monitoring Center, China National Institute of Standardization, Beijing Customs, General Administration of Customs.

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The previous versions of the standards replaced by this standard are as follows：

- GB/T19630.1～GB/T19630.4-2005，GB/T 19630.1～GB/T 19630.4-2011

# Organic product production, processing, labeling and management system requirements

## 1 Scope

This standard specifies the requirements for the production, processing, identification and management system of organic products.

This standard applies to the production of organic plants, animals, and microbial products, the processing of organic food, feed, and textiles, and the packaging, storage, transportation, labelling, and marketing of organic products.

## 2 Normative References

The following normative documents are indispensable for the application of this document. For dated references, only the dated edition of the publications referred to applies; for undated references, the latest edition of the publications referred to applies.

GB 2721 National Food Safety Standard Edible salt

GB 2760 National Food Safety Standard Food additive use standard

GB 3095 Ambient Air Quality Standard

GB 4287 Water Pollutant Discharge Standard for Textile Dyeing and Finishing Industry

GB 5084 farmland irrigation water quality standards

GB 5749 Sanitary Standard for Drinking Water

GB 11607 Fishery Water Quality Standard

GB 14881 National Food Safety Standard General hygiene rules for food production

GB 15618 Soil environmental quality Agricultural land soil pollution risk control standards

GB 18596 Pollutant emission standards for livestock and poultry breeding

GB/T 18885 Technical requirements for ecological textiles

GB 20814 Limits and determination of heavy metal elements in dye products

GB 23350 Limitation of excessive packaging requirements Food and cosmetics

## 3 Terms and Definitions

Terms and definitions definedGB 2721, GB 2760, GB 3095, GB 4287, GB 5084, GB 5749, GB 11607, GB 14881, GB 15618, GB 18596, GB/T 18885, GB 20814, and GB 23350, as well as the followings apply to this file.

### 3.1 Organic Production

Organic production is a way of agricultural production that respects to natural rules and ecological theories and coordinates the balance between plant and animal production to achieve a sustainable and stable agricultural production system in accordance with certain principles of organic agricultural production. The genetically modified organisms (GMOs) and their products, synthetic chemical substances of fertilizers, pesticides, regulators and feedstuff additives are prohibited to use in agriculture production;.

### 3.2 Organic Processing

Organic processing is a way of processing to mainly use organic ingredients, prohibit the genetically modified organisms (GMOs) and their products, minimize the use of chemically synthesized additives, processing aids, dyes, and other inputs and keept the nutrition and / or the original attributes.of product to its maximum extent.

**3.3 Organic Product**

The products are organically produced and organically processed for human consumption and animal consumption.

Note: In this standard, "organic" can be marked before the name of a specific organic product or product category, such as organic seeds, organic sprouts, and organic ingredients.

**3.4 Conversion Period**

The period between the beginning of management in compliance with this Standard and the point of time when the production units and its products have been certified as organic.

**3.5 Parallel Production**

In the same production unit, the same or indistinguishable products are produced with organic, organic in conversion or conventional status at the same time.

**3.6 Buffer Zone**

A clearly defined and identifiable boundary area bordering an organic production site that is established to limit application of, or contact with, prohibited substances from an adjacent area.

**3.7 Input**

All substances or materials used in the process of organic production.

**3.8 Animal Life Cycle**

The period between the date of animal birth and its selling as organic product.

**3.9 Homeopathic Treatment**

A disease treatment system.

Note: The disease is treated by serially diluting a substance that can cause symptoms similar to the disease to be treated if used in large quantities on healthy animals without dilution.

**3.10 Propagating Material**

Plants or plant tissues other than seedlings of annual plants used in plant production or reproduction.

Note: Including but not limited to root and stem, buds, leaves, cuttings, roots and tubers.

**3.11 Genetic Engineering /Genetic Modification organism**

Technology (genetic engineering technology / transgenic technology) that alters genetic material by means other than naturally occurring mating and natural recombination has changed its genes to plants, animals, and microorganisms.

Note: organisms obtained by techniques such as zygote, transduction and hybridization are not included.

**3.12 Irradiation/Ionizing Radiation**

Radionuclide high-energy radiation.

Note: It can change the molecular structure of food, control microorganisms, germs, parasites and pests in food, and is used to preserve food or inhibit physiological processes such as germination or maturation.

**3.13 Ingredients**

Any substance used in the manufacture or processing of a product and present (including in a modified form) in the product.

**3.14 Food Additives**

Artificial or natural substances added to food to improve food quality and color, aroma, taste, and for the needs of preservation, preservation and processing technology.

[GB 2760-2014, definition 2.1]

**3.15 Processing Aids**

The various substances used to ensure the smooth processing of food have nothing to do with the food itself.

Note: Such as filtering aid, clarification, adsorption, demoulding, decoloration, peeling, extraction of solvents, nutrients for fermentation, etc.

[GB 2760-2014, definition 2.4]

**3.16 Labeling**

The marking of products in the form of written or printed words or graphics on the products sold and the packaging, labels or explanatory materials provided with the products.

Proof that the production or processing of the product complies with this standard and is certified as a proprietary symbol, pattern or combination of symbols, patterns and text.

**3.17 Certification Mark**

Proof that the production or processing of the product complies with this standard and is certified as a proprietary symbol, pattern or combination of symbols, patterns and text.

**3.18 Marketing**

Wholesale, direct sales, sales promotion, consignment, distribution, retail, or any other way to put products on the market.

**3.19 Organic Producer**

Units or individuals engaged in the production of plant, animal, and microbial products whose products have obtained organic product certification and are allowed to use the organic product certification mark.

**3.20 Organic Processor**

Units or individuals engaged in the processing of food, feed and textiles whose products have been certified for organic products and are allowed to use the organic product certification mark.

**3.21 Organic Handler**

Units and individuals engaged in the transportation, storage, packaging, and trading of organic products whose products have obtained organic product certification and are allowed to use the organic product certification mark.

**3.22 Internal Inspector**

The internal management personnel of Organic production, processing, and management organizations are responsible for organic management system audits, and cooperation with organic CBs to conduct inspections and certifications.

**3.23** Production Unit

The production area managed by an organic product operater.

**4 production**

**4.1 Basic requirements**

**4.1.1 Production unit**

The boundaries of organic production units should be clear, ownership and management rights should be clear, and an organic production management system has been established and implemented in accordance with the requirements of this standard.

**4.1.2 Conversion Period**

The development from conventional production to organic production requires conversion, and the products after the conversion period can be sold as organic products.

During the conversion period, management shall be performed in accordance with the requirements of this standard.

**4.1.3 Genetically modified organisms**

4.1.3.1 Genetically engineered organisms / GMOs and their derivatives should not be introduced or used in organic production, including plants, animals, microorganisms, seeds, pollen, sperm, eggs, other propagation materials and fertilizers, soil improvement Substances, plant protection products, plant growth regulators, feeds, animal growth regulators, veterinary medicine, fishery medicine and other agricultural inputs.

4.1.3.2 There are both organic and conventional production units, and genetic engineering organisms should not be introduced or used in the regular production part.

**4.1.4 Irradiation, Ionizing Radiation**

Irradiation techniques shall not be applied in organic production.

**4.1.5 Input**

4.1.5.1 Producers shall select and implement cultivation and/or husbandry management measures to maintain or improve the physical, chemical and biological properties of the soil, reduce soil erosion, and protect the health of plants and breeding animals.

4.1.5.2 In case that cultivation and/or husbandry management measures cannot maintain soil fertility and guarantee the health of plants and breeding animals, external inputs of the organic production system listed in Appendix A and Appendix B may be used according to the given conditions. Even when the inputs listed in the Appendix A and Appendix B cannot meet the requirements, other materials not listed in Appendix A and Appendix B may be evaluated for application in organic agriculture in accordance with the evaluation guidelines in Appendix C.

4.1.5.3 Only the substances listed in Table A.2 shall be used as active ingredients of compound

preparation for plant protection. Substances that are carcinogenic, teratogenic, mutagenic, and neurotoxic shall not be used.

4.1.5.4 Synthetic chemical plant protection products shall not be used.

4.1.5.5 Synthetic chemical fertilizers and urban sewage sludge shall not be used.

4.1.5.6 Any level of prohibited substances in organic production shall not be detected in certified products.

**4.2 Plant Production**

**4.2.1 Conversion Period**

4.2.1.1 A conversion period of a minimum of 24 months is required before sowing or planting for annual plants. For grassland or perennial forage, the conversion period shall be a minimum of 24 months before harvest, and a minimum of 36 months for perennial plants other than forage before harvest.

4.2.1.2 The conversion period shall be a minimum of 12 months for newly reclaimed fields, fallow fields and/or fields proven no prohibited substances application for more than 36 months.

4.2.1.3 The conversion period for fields contaminated with prohibited substances can be extended.

4.2.1.4 For the parcels that have been converted or are in the conversion period, if prohibited substances are used, the conversion should be restarted. The banned substances used in local blocks are used by local government agencies to deal with certain diseases or insect pests, which can shorten the conversion period specified in 4.2.1.1, but should pay attention to the degradation of banned substances in the applied products and ensure that , Residues in the soil or perennial crops reach non-significant levels, and the harvested products should not be sold as organic products.

4.2.1.5 Sprout production can be exempted from the conversion period.

**4.2.2 Parallel Production**

4.2.2.1 In the same production unit, organic and non-organic plants that are easy to be distinguished can be produced at the same time, but organic and non-organic components (including land, production facilities and tools) shall be completely separated, and appropriate measures shall be taken to prevent the contamination of organic products with non-organic products and prohibited substances.

4.2.2.2 No parallel production for annual plants shall occur in the same production unit.

4.2.2.3 In the same production unit, no parallel production of perennial plants shall occur unless the following conditions are met:

a) Producers shall set up an organic conversion plan and promise to convert non-organic fields into organic in the same unit within the shortest period, no more than 5 years;

b) Appropriate measures need to be taken to ensure that products harvested from organic and non-organic production areas can be strictly separated.

**4.2.3 Environmental Requirements for the Production Base**

The production of organic products needs to be carried out under appropriate environmental

conditions. The production base should be far away from urban areas, industrial and mining areas, transportation trunk lines, industrial pollution sources, domestic garbage dumps, etc., and the environment of the production area should be continuously improved.

The environmental quality of the origin should meet the following requirements:

a) Select appropriate soil based on risk assessment, which should meet the requirements of GB 15618;

b) The water quality of farmland irrigation water meets the requirements of GB 5084;

c) The ambient air quality meets the requirements of GB 3095.

**4.2.4 Buffer Zone**

The risk of contamination of organic production areas from adjacent production areas should be analyzed. Where there is a risk, an effective buffer zone or physical barrier should be set up between organic production and conventional production areas to prevent organic production plots from being contaminated.

Note: Plants grown on the buffer zone cannot be certified as organic products.

**4.2.5 Seed and Propagating Material**

4.2.5.1 Plant species and varieties adapted to local soil and climate conditions, and with resistance to pests and diseases, shall be selected. When plant varieties will be selected, full consideration shall be given to protect the plant's genetic diversity.

4.2.5.2Organic seeds or propagating materials shall be used. If organic seeds or propagating materials are not commercially available, conventional seeds or propagating materials which have not been treated with prohibited materials shall be selected, but a plan for obtaining organic seeds and propagating materials shall be developed and implemented.

4.2.5.3 Organic production methods shall be used to cultivate the annual seedlings.

4.2.5.4 Seeds and propagating materials treated with prohibited materials or methods shall not be used.

**4.2.6 Cultivation**

4.2.6.1 At least three-crop rotations shall be carried out for annual plants; two-crop rotation can be carried out in areas with multi-growth seasons of rice in a year; no crop rotation can be carried out in areas with fallow in winter. The plants used for rotation shall include but not be limited to legumes, green manure and cover plants.

4.2.6.2 Plant intercropping should be adopted to increase biodiversity and improve soil fertility and plant disease resistance.

4.2.6.3 Appropriate irrigation methods (such as drip irrigation, sprinkler irrigation, subsurface irrigation, etc.) shall be developed in accordance with local conditions.

**4.2.7 Soil Fertility Management**

4.2.7.1 Appropriate farming and cultivation measures shall be applied to maintain and improve soil fertility, including:

a) Practices of recycling, regeneration and replenishing of soil organic matters and nutrients

shall be used to compensate for the organic matter and nutrients that are removed by harvesting;

b) Legume cultivation, no tillage and leaving land fallow shall be adopted to restore soil fertility.

4.2.7.2 When the measures described in 4.2.7.1 cannot meet the demand for plant growth, organic manure may be used in order to maintain and improve soil fertility, nutrient balance and activities of soil organisms. Excessive application of organic manure shall be avoided due to potential environmental pollution. Organic fertilizer from the unit or other organic units shall be used in priority. If the fertilizer is bought from an external unit, it shall be evaluated and approved by the certification body before usage.

4.2.7.3 Application of human excrement on leafy vegetables, tuber crops and root crops is prohibited. If absolutely necessary for other plants, human excrement shall be fully composted and harmlessly treated and shall not be in contact with the edible portions of plants.

4.2.7.4 Natural mineral fertilizers with low solubility may be used, but shall not be used as substitutes for nutrients cycling in organic production system. Mineral fertilizers shall only be used as long-term fertilizers with their natural components unchanged. Increase of the solubility of mineral fertilizers by chemical treatment is prohibited. Mineral nitrogen fertilizer is not allowed.

4.2.7.5 Bio-fertilizer may be used; microorganisms from nature may be added during composting. But genetically modified organisms and their products shall not be used.

4.2.7.6 Fertilizers and soil conditioners allowed for organic plant production are listed in Table A.1.

**4.2.8 Disease, Pest and Weed Control**

4.2.8.1 Disease, pest and weed control shall be based on the basic principles of holistic approaches to the agro-ecosystem, where control measures are integrated and taken to create environmental conditions that are against the propagation of diseases, pests and weeds, but favorable to the multiplication of natural enemies, with the aim of maintaining the balance and biodiversity of the agro-ecosystem, and mitigating the losses from various disease, pests and weeds. Farming measures shall be applied in priority to prevent and control diseases, pests and weeds, including selection of appropriate species and varieties, non-chemical seed treatment, cultivation of strong seedlings, strengthening cultivation management, weeding, deep plowing and sunning, fields cleaning, crop rotation, and intercropping. In addition, measures such as using lights, color traps, mechanical traps and mechanical or artificial weeding shall be adopted to control diseases, pests and weeds.

4.2.8.2 If the methods mentioned under 4.2.8.1 are ineffective, products listed in Table A.2 may be used.

**4.2.9 Facility Cultivation**

4.2.9.1 Soil or substrate should be used for plant production and should not be produced by nutrient solution cultivation. Construction materials and cultivation containers for prohibited substances should not be used in facility treatment agriculture. The conversion period shall meet

the requirements of 4.2.1.

4.2.9.2 When the soil fertility and improvement materials are applied, they shall meet the requirements of Table A.1 and shall not contain prohibited substances. Animal manure should be piled when used as a source of nutrients.

4.2.9.3 The following measures and methods may be adopted:

a) Use of flame, fermentation, composting and compressed gas to increase carbon dioxide concentration;

b) Use of auxiliary gas or water to obtain auxiliary heat sources;

c) Use of auxiliary light sources;

d) Regulation of the growth and development by controlling temperature and light or using natural plant growth regulators.

4.2.9.4 Measures for soil regeneration and recycling shall be adopted. In the production process, the following methods can be used instead of crop rotation:

a) Graft cultivation with disease-resistant plants;

b) Summer and winter ploughing and sunbathing;

c) Regenerating soil by applying biodegradable plant cover (such as crop straw and hay);

d) Replace some or all of the greenhouse soil, but the replaced soil should be reused for other plant production activities.

4.2.9.5 Recyclable or recycled cultivation containers should be used. When cleaning and disinfecting cultivation containers, steam or the cleaning agents and disinfectants listed in Table A.3 of Appendix A should be used.

**4.2.10 Sprout Production**

4.2.10.1 Organic seeds should be used to produce sprouts.

4.2.10.2 The water quality of production water shall comply with GB 5749.

4.2.10.3 Preventive measures shall be taken to prevent pests and diseases. Steam may be used. If necessary, the cleaning containers and production sites listed in Table A.3 shall be used to clean and disinfect the cultivation containers and production sites.

**4.2.11 Sorting, Cleaning, and Other Post-harvest Handling**

4.2.11.1 The simple processing processes such as cleaning, sorting, threshing, husking, cutting, fresh-keeping, and drying of plants present after harvesting shall adopt physical and biological methods. If necessary, use the substances listed in Appendix E for processing.

4.2.11.2 Equipment used to process conventional products should be cleaned before handling organic products. For treatment equipment that is not easy to clean up, measures can be taken to punch.

4.2.11.3 Equipment and appliances should be kept clean to avoid contamination of the product.

4.2.11.4 When cleaning and disinfecting equipment and facilities, use cleaning agents and disinfectants in accordance with the requirements in Table A.3 of Appendix A, and avoid product pollution.

4.2.11.5 The pest control during post-harvest treatment shall comply with the provisions of 5.2.3.

**4.2.12 Contamination Control**

4.2.12.1 Measures shall be taken to prevent water from conventional farmland from penetrating or flooding into organic plots.

4.2.12.2 Contamination of organic products by prohibited substances caused by the application of fertilizers from external sources shall be avoided.

4.2.12.3 Before the equipment in the conventional agricultural system is used in organic production, cleaning measures shall be taken to avoid the contamination of conventional products and the banned substance contamination.

4.2.12.4 When using protective building coverings, plastic films, insect nets, polyethylene, polypropylene or polycarbonate products should be selected and should be removed from the soil after use and should not be incinerated. Polychlorinated products should not be used.

**4.2.13 Soil and Water Erosion Control and Biodiversity Protection**

4.2.13.1 Measures shall be taken to prevent soil erosion, soil desertification and salinization. Full consideration should be given to the sustainable use of soil and water resources.

4.2.13.2 Measures shall be taken to protect natural enemies and their habitats.

4.2.13.3 Crop stalks should be fully utilized and should not be incinerated unless it is needed for pest control.

**4.3 Wild Collection**

4.3.1 Wild collection areas shall have clear boundaries and be in a stable and sustainable production state.

4.3.2 Wild collection areas should be far away from pollution sources such as sewage plants, mining areas, garbage disposal sites, conventional farmland, and highway trunk lines. The wild collection area shall not been contaminated with substances and heavy metals other than the inputs allowed in this standard within 36 months before collection.

4.3.3 An effective buffer zone shall be maintained in the wild collection area.

4.3.4 Collection activities should not adversely affect the environment or threaten biological species, and the collection volume should not exceed the sustainable production of the ecosystem.

4.3.5 Management plans for sustainable production in wild collection areas should be formulated and submitted.

4.3.6 The treatment after wild collection shall meet the requirements of 4.2.11.

4.3.7 Wild collection is exempt from the conversion period.

**4.4 Mushroom Cultivation**

4.4.1 There should be no parallel production within the same production unit.

4.4.2 The edible fungus cultivation area adjacent to conventional farmland shall be provided with a buffer zone or physical barrier to avoid the effects of prohibited substances. The quality of the water source shall meet the requirements of GB 5749.

4.4.3 Organic bacteria should be used. If strains of organic origin are not available, conventional

strains that have not been treated with prohibited substances can be used.

4.4.4 Natural materials or organically produced substrates shall be used, and the following auxiliary materials may be added:

a) Farm manure and animal manure from organic production units; When farm manure and animal manure from organic production units are not available, soil fertilization and improvement materials should be used according to the requirements of Table A.1, but should not exceed the substrate 25% of the total dry weight, and should not contain human feces or livestock and poultry manure from intensive farms;

b) Products of agricultural origin shall be organically produced products other than those referred to in 4.4.4 a);

c) peat without chemical treatment;

d) wood that has not been treated with chemical products after felling;

e) Mineral-derived substances listed in Table A.1.

4.4.5 Edible fungus cultivation (except soil cultivation and soil cover cultivation) can be exempted from the conversion period. The conversion period of edible fungi grown in soil culture or soil cover should be in accordance with the requirements of 4.2.1 during the conversion period of the same annual plant.

4.4.6 The coatings used for wood and inoculation sites shall be food-grade products, and petroleum-refined coatings, latex paints and paints shall not be used.

4.4.7 Preventive management measures shall be adopted to maintain cleanliness and sanitation, carry out appropriate air exchange, and remove infected bacteria.

4.4.8 During the non-cultivation period, steam can be used to clean and disinfect the cultivation site. Cleaners and disinfectants should be used in accordance with the requirements of Table A.3.

4.4.9 The post-harvest treatment of edible fungi shall meet the requirements of 4.2.11.

**4.5 Livestock and Poultry Production**

**4.5.1 Conversion Period**

4.5.1.1 The conversion period of the feed production base shall meet the requirements of 4.2.1; if the pasture and pasture are for non-herbivore use only, the conversion period may be shortened to 12 months. If there is sufficient evidence to prove that prohibited substances have not been used for more than 12 months, the conversion period can be shortened to 6 months.

4.5.1.2 Livestock and poultry should go through the following conversion periods:

a) Beef cattle, equine, camel, 12 months;

b) Sheep and pigs for meat, 6 months;

c) Dairy animals, 6 months;

d) Poultry for meat, 10 weeks;

e) Poultry for eggs, 6 weeks;

f) The conversion period of other species is longer than 3/4 of its breeding period

**4.5.2 Parallel Production**

If a breeding farm raises the same species or indistinguishable livestock and poultry species organically and conventionally, the following conditions must be met before the organic livestock and poultry or their products can be sold as organic products::

a) Organic stalls, sports fields and pastures are completely separated from organic livestock and conventional livestock, or organic livestock and conventional livestock are easily distinguished breeds;

b) The warehouse or area where feed is stored should be separated and clearly marked;

c) Organic livestock and poultry should not be exposed to conventional feed..

**4.5.3 Origin of Livestock and Poultry**

4.5.3.1 Organic livestock and poultry should be introduced. When organic livestock and poultry are not available, conventional livestock and poultry can be introduced, but the following conditions should be met:

a) Beef cattle, equines, camels, not more than 6 months old and weaned;

b) Pigs and sheep, not more than 6 weeks old and weaned;

c) Dairy cows, not exceeding 4 weeks of age, calves that have been colostrum-fed and are fed mainly with whole milk

d) Broiler chickens, no more than 2 days old (other birds can be relaxed to 2 weeks of age);

e) Chickens for eggs, not exceeding 18 weeks of age.

4.5.3.2 Conventional breeding females can be introduced. The number of cattle, horses, and camels introduced each year should not exceed 10% of the total number of adult organic females of the same type. Pigs and sheep should not be introduced more than the total number of adult organic females of the same type. 20%. In the following cases, the ratio can be relaxed to 40% with the approval of the certification body:

a) Unforeseen serious natural disasters or man-made accidents;

b) The scale of the farm has been greatly expanded;

c) Farms develop new breeds of livestock and poultry.

All introduced conventional livestock and poultry should go through the corresponding conversion period.

4.5.3.3 Conventional breeding males can be introduced, and they should be reared according to organic production methods immediately after introduction.

**4.5.4 Feed**

4.5.4.1 Livestock and poultry should be raised with organic feed. At least 50% of the feed should come from the feed cultivation base of the farm or the organic production unit with cooperative relationship in the area. Feed production, harvest and post-harvest handling, packaging, storage and transportation shall meet the requirements of 4.2 and 4.8.

4.5.4.2 During the first 12 months of the organic management of the farm, the feed produced by the feed planting base of this farm in accordance with the requirements of this standard can be used as organic feed for the livestock and poultry of this farm, but should not be sold as organic

feed. Effective buffer zones or physical barriers should be set up in feed production bases, pastures and pastures and surrounding conventional production areas to avoid contamination.

4.5.4.3 When organic feed is in short supply, regular feed can be fed. However, the proportion of conventional feed consumption of each animal in the annual consumption should not exceed the following percentages:

a) Herbivores (as dry matter), 10%;

b) Non-herbivores (as dry matter), 15%.

The proportion of conventional feed in livestock and poultry diets must not exceed 25% of the total (based on dry matter).

In the event of unforeseen serious natural disasters or man-made accidents, more than the above proportion of conventional feed can be fed within a certain period of time.

Conventional feeds should be approved by a certification body in advance.

4.5.4.4 It should be ensured that herbivores can obtain roughage daily to meet their basic nutritional needs. In their diet, the proportion of roughage, fresh grass, green hay or silage must not be less than 60% (on a dry matter basis). For dairy animals 3 months before the lactation period, this ratio can be reduced to 50% (on a dry matter basis). Diets for omnivores and poultry should be supplemented with roughage, fresh grass or green hay, or silage.

4.5.4.5 Young animals in the colostrum period shall be raised by females and shall have sufficient colostrum. The same kind of organic milk can be used to feed lactating young animals. Where organic milk is not available, regular milk of the same kind can be used.

Early weaning or feeding of young animals with milk substitutes should not be used. Milk substitutes can be used for supplementary feeding in emergency situations, but they should not contain antibiotics, chemically synthesized additives (other than those allowed in Table B.1 of Appendix B) or animal slaughter products. You need at least:

a) Cattle, equine, camel, 3 months;

b) Goats and sheep, 45 days;

c) Pig, 40th.

4.5.4.6 In the production of feed, feed ingredients and feed additives, genetically engineered organisms / GMOs or their products shall not be used.

4.5.4.7 The following methods and substances should not be used:

a) Feeding ruminants with animals and their products, or feeding the same animals and their products to livestock and poultry;

b) Animal feces;

c) Feeds extracted with chemical solvents or chemically synthesized substances, but using water, ethanol, animal and vegetable oils, vinegar, carbon dioxide,

Except for nitrogen or carboxylic acid extraction.

4.5.4.8 The feed additives used shall be listed in the feed additive variety catalog issued by the competent agricultural department, and shall also comply with the relevant requirements of this

standard.

4.5.4.9 When the feed cannot meet the nutritional requirements of livestock and poultry, use the minerals and trace elements listed in Table B.1.

4.5.4.10 The added vitamins shall be from germinated grain, cod liver oil, brewing yeast or other natural substances; when the nutritional requirements of livestock and poultry cannot be met, the artificially synthesized vitamins listed in Table B.1 shall be used.

4.5.4.11 The following substances shall not be used (except those permitted in Table B.1):

a) Chemically synthesized growth promoters (including antibiotics, antiparasitic drugs and hormones used to promote growth);

b) Chemically synthesized flavoring agents and spices;

c) Preservatives (except when used as a processing aid);

d) Chemically synthesized or extracted colorants;

e) Non-protein nitrogen (such as urea);

f) Chemical purification of amino acids;

g) Antioxidants;

h) Adhesives.

**4.5.5 Husbandry Conditions**

4.5.5.1 The breeding environment (pens, fences, etc.) of livestock and poultry should meet the following conditions to meet the physiological and behavioral needs of livestock and poultry:

a) Livestock houses and activity spaces should meet the requirements of Table D.1, and poultry houses and activity spaces should meet the requirements of Table D.2.

b) Livestock and poultry sports grounds can be partially sheltered, with air circulation and sufficient natural light, but excessive sun exposure should be avoided;

c) Waterfowl should be able to move in water bodies such as streams, ponds, lakes or ponds;

d) Adequate drinking water and feed, and the quality of drinking water for livestock and poultry should meet the requirements of GB 5749;

e) Maintain proper temperature and humidity to avoid being hit by wind, rain, snow, etc .;

f) If the litter is likely to be eaten by farmed animals, the litter shall meet the requirements of 4.5.4 for feed;

g) Ensure adequate sleep time;

h) Do not use construction materials and equipment that are obviously harmful to human or livestock health;

i) Protect livestock and poultry from beasts.

4.5.5.2 Artificial lighting can be used to raise eggs and poultry to extend the lighting time, but the total lighting time per day should not exceed 16 h. Producers can appropriately increase the light time according to the health status of the eggs and poultry or the growing season (such as the heating of newborn birds).

4.5.5.3 All livestock and poultry should be allowed to exercise outdoors in the appropriate season.

The special structure of livestock and poultry houses should be improved within a time limit when livestock and poultry are temporarily unable to exercise outdoors.

4.5.5.4 The last fattening stage of beef cattle can be adopted for house feeding, but the fattening stage should not exceed 1/5 of its breeding period, and the longest should not exceed 3 months.

4.5.5.5 Cultivation methods that limit the natural behavior of livestock and poultry, such as cage and complete captivity, house feeding, and tethering, which prevent the livestock and poultry from contacting the land, should not be adopted.

4.5.5.6 Group livestock and poultry should not be raised in separate pens, with the exception of diseased livestock and poultry, adult male livestock and livestock during the second trimester.

4.5.5.7 No feeding should be forced.

**4.5.6 Disease Prevention and Veterinary Treatment**

4.5.6.1 Disease prevention shall be carried out according to the following principles:

a) Select adaptable and resistant varieties according to regional characteristics;

b) Provide high-quality feed, proper nutrition, and appropriate sports management methods to enhance non-specific immunity of livestock and poultry;

c) Strengthen facilities and environmental sanitation management, and maintain appropriate livestock and poultry feeding density.

4.5.6.2 The disinfectant used shall meet the requirements of Table B.2. During disinfection, livestock and poultry should be removed from the treatment area. Livestock and poultry manure should be cleaned regularly.

4.5.6.3 Plant-derived preparations, trace elements, microbial preparations, and traditional Chinese veterinary, acupuncture, and homeopathy treatments can be used to prevent and cure diseases of livestock and poultry.

4.5.6.4 Vaccinations can be used instead of genetically engineered vaccines (except for national compulsory immunization vaccines). Emergency vaccination (including vaccination to promote the production of maternal body antibody substances) can be used when the farm is at risk of developing a disease that cannot be controlled by other methods.

4.5.6.5 Antibiotics or chemically synthesized veterinary drugs should not be used for preventive treatment of livestock and poultry.

4.5.6.6 When multiple preventive measures are still not available to control the disease or pain of livestock and poultry, conventional veterinary drugs can be used for diseased livestock and poultry under the guidance of a veterinarian, but the drug should be taken twice as long as the drug's withdrawal period (if After the 2x withdrawal period is less than 48 h, it should reach 48 h) before these animals and their products can be sold as organic products.

4.5.6.7 Antibiotics, chemically synthesized antiparasitic drugs or other growth promoters should not be used to stimulate the growth of livestock and poultry. Hormones should not be used to control the reproductive behavior of livestock and poultry (such as inducing estrus, simultaneous estrus, superovulation, etc.), but hormones can be used to treat individual animals under veterinary

supervision.

4.5.6.8 In addition to legal vaccination and parasite elimination, livestock and poultry with a breeding period of less than 12 months can only be treated with one course of antibiotics or chemically synthesized veterinary drugs; if the breeding period exceeds 12 months, the maximum is that every 12 months can receive three courses of antibiotics or chemically synthesized veterinary drugs. If it exceeds the acceptable course of treatment, it should be converted again.

4.5.6.9 For livestock and poultry treated with antibiotics or chemically synthesized veterinary drugs, large animals should be marked one by one, while poultry and small animals can be marked in groups.

**4.5.7 Non-Therapeutic Operations**

4.5.7.1 Organic farming emphasizes respect for the individual characteristics of animals. Try to breed species that do not require non-therapeutic surgery. On the premise of minimizing the suffering of livestock and poultry, the following non-therapeutic operations can be performed on livestock and poultry, and anesthetics can be used if necessary:

a) Physical castration;

b) Broken angle;

c) Passivation of canine teeth within 24 hours after birth;

d) The lamb's tail is broken;

e) Cutting feathers;

f) Buckle.

4.5.7.2 The following non-therapeutic operations should not be performed:

a) Broken tail (except lamb);

b) Broken beak and broken toe;

c) Burning wings;

d) Broken teeth of piglets;

e) Other non-therapeutic operations that are not explicitly permitted.

**4.5.8 Reproduction**

4.5.8.1 Natural breeding methods should be adopted.

4.5.8.2 Various breeding methods such as artificial insemination that do not have a serious impact on the genetic diversity of livestock and poultry can be used.

4.5.8.3 Artificial or assisted reproduction techniques that have a serious impact on the genetic diversity of livestock and poultry, such as embryo transfer and cloning, should not be used.

4.5.8.4 Reproductive hormones should not be used to promote ovulation and childbirth of livestock and poultry, except for therapeutic purposes.

4.5.8.5 If the female animal is treated with antibiotics or chemically synthesized veterinary drugs (except anthelmintic drugs) within the last third of the gestation period, the offspring should undergo the corresponding conversion period.

**4.5.9 Transportation and slaughter**

4.5.9.1 Livestock and poultry should be clearly marked during loading, unloading, transportation,

waiting to be slaughtered, and slaughtered; other livestock and poultry products should also be clearly marked during loading, unloading, transporting, and entering or leaving the warehouse.

4.5.9.2 During the period of loading, unloading, transportation and slaughtering of livestock and poultry, a special person shall be responsible for management.

4.5.9.3 Appropriate transportation conditions should be provided, such as:

a) Avoid contact of livestock and poultry with animals that are being slaughtered or dead through sight, hearing and smell;

b) Avoid mixing livestock and poultry from different groups. Organic livestock and poultry products should be avoided from mixing with conventional products and clearly marked.

c) Provide rest periods to relieve stress;

d) To ensure the quality and suitability of transportation methods and operating equipment, the transportation means should be clean and suitable for the livestock and poultry being transported, and there should be no sharp parts to avoid harming the livestock and poultry;

e) Avoid hunger and thirst for livestock and poultry during transportation. If necessary, feed and water for livestock and poultry;

f) Consider and try to meet the individual needs of livestock and poultry;

g) Provide appropriate temperature and relative humidity;

h) Minimal stress on livestock and poultry during loading and unloading.

4.5.9.4 The operation of transporting and slaughtering animals shall be peaceful and consistent with animal welfare principles. Animals should not be driven by electric baton and similar equipment. Chemically synthesized sedatives should not be used on animals before and during transport.

4.5.9.5 Slaughter shall be carried out in a qualified slaughterhouse, and good hygienic conditions shall be ensured.

4.5.9.6 should be slaughtered nearby. Unless the distance from the farm to the slaughterhouse is too long, in general, the time for transporting livestock and poultry does not exceed 8 hours.

4.5.9.7 Bundling, hanging and slaughtering of livestock and poultry should not be carried out before they become unconscious, except for small birds and other small animals. Tools used to desensitize livestock and poultry before slaughter should be in good working order at all times. If, for religious or cultural reasons, livestock and poultry are not allowed to be unconscious before slaughter, but direct slaughter shall be carried out in a peaceful environment and in the shortest possible time.

4.5.9.8 Organic livestock and conventional livestock and poultry shall be slaughtered separately, and the products after slaughter shall be stored separately and clearly marked. Pigments used for carcass marking should comply with national food hygiene regulations.

**4.5.10 Pest Management in Animal Production Facilities**

The following methods should be adopted for pest control in order of priority:

a) Preventive measures;

b) Mechanical, physical and biological control methods;

c) The substances in Table A.2. can be used in livestock and poultry farms.

**4.5.11 Environmental Impacts**

4.5.11.1 Full consideration shall be given to feed production capacity, livestock and poultry health and environmental impact, and to ensure that the number of livestock and poultry raised does not exceed the maximum carrying capacity of its breeding range. Measures should be taken to avoid excessive grazing from adversely affecting the environment.

4.5.11.2 It shall be ensured that the storage facilities for livestock and poultry manure have sufficient capacity and timely treatment and reasonable utilization. All manure storage and treatment facilities shall be designed to avoid contamination of underground and surface water during design, construction and operation. The discharge of pollutants from the farm should meet the requirements of GB 18596.

**4.6 Aquaculture**

**4.6.1 Conversion Period**

4.6.1.1 The transition period from non-open water aquaculture farms to conventional production shall be at least 12 months.

4.6.1.2 Each part of the production unit located in the same non-open water area shall not be certified separately. Only when the entire water body fully complies with this standard can it be certified.

4.6.1.3 If a production unit cannot perform simultaneous conversion of aquaculture water bodies under its jurisdiction, a strict parallel production management system shall be established. The management system should meet the following requirements:

a) Physical isolation measures should be taken between organic and conventional breeding units; for fixed aquatic organisms growing in open waters, the organic production area should be kept at a certain distance from conventional production areas, conventional agricultural or industrial pollution sources;

b) The elements of the organic production system should be able to be checked, including but not limited to inputs such as water quality, bait, medicines, and other standards-related elements.

c) Documents and records of conventional production systems and organic production systems shall be established separately;

d) Organic conversion farms should be continuously managed organically and should not change between organic and conventional management.

4.6.1.4 Wild fixed organisms in open water capture areas can be directly certified as organic aquatic products in the following cases:

a) The water body is not affected by the banned substances in this standard;

b) The aquatic ecosystem is in a stable and sustainable state.

4.6.1.5 Conventional cultured aquatic organisms may be introduced, but the corresponding conversion period should be passed. The introduction of non-native species of biological species

should avoid permanent damage to local ecosystems by alien species. GMOs should not be introduced.

4.6.1.6 All introduced aquatic organisms shall be cultured by organic production methods at least in the last 2/3 of the breeding period.

**4.6.2 Selection of Aquaculture Sites**

4.6.2.1 When selecting the site of a breeding farm, consideration shall be given to maintaining the ecological environment of the breeding waters and the surrounding aquatic and terrestrial ecosystems, and helping to maintain the biological diversity of the waters in which they are located. Organic production farms should not be adversely affected by pollution sources and conventional aquaculture farms.

4.6.2.2 The water area of organic production shall be clear so as to check the water quality, bait, medicine and other factors.

**4.6.3 Water Quality**

The water quality of organically produced waters shall meet the requirements of GB 11607.

**4.6.4 Basic requirements for aquaculture**

4.6.4.1 Breeding methods suitable for the physiological habits and local conditions of the breeding objects shall be adopted to ensure the health of the breeding objects and meet their basic living needs. Permanent aeration should not be used.

4.6.4.2 Effective measures shall be taken to prevent organisms from other breeding systems from entering the organic production system and predating organic organisms.

4.6.4.3 No artificial injury measures shall be taken against the breeding objects.

4.6.4.4 The lighting time can be prolonged artificially, but the daily lighting time should not exceed 16 h.

4.6.4.5 In building materials and production equipment for aquaculture, coatings and synthetic chemicals should not be used to avoid harmful effects on the environment or organisms.

**4.6.5 Feeding materials**

4.6.5.1 The bait to be fed shall be organic or wild. When the quantity or quality of organic or wild bait cannot meet the demand, conventional bait can be fed up to 5% (based on dry matter) of the total bait. In the case of unforeseen circumstances, after obtaining the evaluation and approval of the certification body, it is possible to feed up to 20% (dry matter) of conventional bait in the year.

4.6.5.2 At least 50% of the animal protein in the bait shall be derived from by-products of food processing or other products not suitable for human consumption. In the event of unforeseen circumstances, the percentage can be reduced to 30% during the year.

4.6.5.3 Natural mineral additives, vitamins and trace elements may be used; when aquatic animals are inadequately nutritional and need to use synthetic minerals, trace elements and vitamins, they shall be used in accordance with the requirements of Table B.1.

4.6.5.4 Human feces should not be used. Animal manure should not be used without treatment.

4.6.5.5 The following substances shall not be added to the bait or fed in any way to aquatic

organisms:

a) Synthetic growth promoters;

b) Synthetic attractants;

c) Synthetic antioxidants and preservatives;

d) Synthetic pigments;

e) Non-protein nitrogen (urea, etc.);

f) Organisms and their products in the same family as the breeding target;

g) Bait extracted by chemical solvents;

h) chemical purification of amino acids;

i) GMOs or their products.

Under special weather conditions, synthetic bait preservatives can be used, but the approval of the certification body should be obtained in advance, and the certification body should specify the use period and amount according to the specific circumstances.

**4.6.6 Disease prevention and veterinary treatment**

4.6.6.1 Preventive measures (such as optimized management, feeding, and feeding) shall be adopted to ensure the health of the breeding objects. All management measures should be aimed at improving the disease resistance of the organism.

4.6.6.2 The culture density shall not affect the health of aquatic organisms and shall not cause abnormal behavior. The density of organisms should be monitored regularly and adjusted as needed.

4.6.6.3 Quicklime, bleaching powder, chlorine dioxide, tea seed cake, potassium permanganate and microbial preparations can be used to disinfect aquaculture water and pond sediments to prevent the occurrence of aquatic diseases.

4.6.6.4 Natural medicines can be used to prevent and treat aquatic animal diseases.

4.6.6.5 Where preventive measures and natural medicine treatments are ineffective, conventional fishery medicines may be used for aquatic organisms. Aquatic organisms can only receive one course of conventional fishery medicine treatment within 12 months. If the allowable treatment period is exceeded, the prescribed conversion period shall be passed.

Aquatic organisms that have used conventional drugs can continue to be sold as organic aquatic organisms after twice the withdrawal period of the used drugs.

4.6.6.6 Antibiotics, chemically synthesized drugs and hormones shall not be used for daily disease prevention and treatment of aquatic organisms.

4.6.6.7 When there is a danger of a certain disease that cannot be controlled by other management techniques, or national laws provide, aquatic organisms can be vaccinated, but genetically modified vaccines should not be used.

**4.6.7 Breeding**

4.6.7.1 The physiological and behavioral characteristics of aquatic organisms shall be respected and interference with them shall be reduced. Natural reproduction methods should be adopted, and

unnatural reproduction methods such as artificial insemination and artificial hatching should not be adopted. Techniques such as parthenogenesis, genetic engineering and artificially induced polyploids should not be used to propagate aquatic organisms.

4.6.7.2 should try to choose varieties suitable for local conditions and strong resistance. If aquatic organisms need to be introduced, organic conditions should be given priority when conditions permit.

**4.6.8 Fishery**

4.6.8.1 The catch of organic production in open waters shall not exceed the reproduction capacity of the ecosystem, and continuous production in natural waters and the survival of other species shall be maintained.

4.6.8.2 Use gentle fishing measures where possible to minimize stress and adverse effects on aquatic organisms.

4.6.8.3 The specifications of fishing tools shall comply with relevant national regulations.

**4.6.9 Transportation of Living Aquatic Animals**

4.6.9.1 During the transportation process, there shall be a special person responsible for managing the transportation object to keep it healthy.

4.6.9.2 The water quality, water temperature, oxygen content, pH value of the water used for transportation, and the loading density of aquatic animals shall be adapted to the needs of the species being transported.

4.6.9.3 The frequency of transportation shall be minimized.

4.6.9.4 Transportation equipment and materials shall not have potential toxic effects on aquatic animals.

4.6.9.5 No chemically synthesized sedatives or stimulants should be used in aquatic animals before or during transportation.

4.6.9.6 The transportation time should be shortened as much as possible. During transportation, the transportation object should not cause avoidable impact or physical injury.

**4.6.10 Slaughter of Aquatic Animals**

4.6.10.1 The management and technology of slaughter shall fully consider the physiology and behavior of aquatic animals, and shall comply with the principle of animal welfare.

4.6.10.2 After the transport of aquatic animals reaches their destination, a certain period of recovery should be given before slaughter.

4.6.10.3 During the slaughter process, the stress and suffering of aquatic animals should be minimized. It should be left unconscious before slaughter. The equipment should be checked regularly for good functioning and ensure that aquatic animals quickly lose consciousness or die during slaughter.

4.6.10.4 Live or aquatic animals should be avoided from direct or indirect contact with dead or aquatic animals that are being slaughtered.

**4.6.11 Environmental Impacts**

4.6.11.1 The drainage of non-open waters shall be approved by the local environmental protection administrative department.

4.6.11.2 Encourage agricultural comprehensive utilization of sediment in non-open waters.

4.6.11.3 The cultivation of organic aquatic organisms in open waters shall avoid or reduce pollution to water bodies.

**4.7 Beekeeping**

**4.7.1 Conversion Period**

4.7.1.1 At least 12 months of conversion is required for bee farming.

4.7.1.2 For bee farms in the transition period, if it is not possible to obtain organic beeswax-based nest foundations from the market or other channels, it is approved to use conventional beeswax-based nest foundations, but all nest foundations should be replaced within 12 months If it cannot be replaced, the certification body may decide to extend the conversion period.

**4.7.2 Siting of the Apiaries**

4.7.2.1 The apiary shall be located in an organic production area or an area where the prohibited substances have not been used for at least 36 months.

4.7.2.2 In the production season, there should be sufficient nectar-generating plants within a range of 3 km from the apiary radius (nectar collecting radius), including organically produced crops and vegetation that has not been treated with prohibited substances for at least 36 months, and clean water sources.

4.7.2.3 Within 3 km of the beehive radius, there should be no pollution sources that may affect the health of the bee colony, including flowering crops that have used prohibited substances, genetically modified crops during flowering, golf courses, garbage dumps, large residential areas, busy roads, etc.

4.7.2.4 When bees are stocked in natural (wild) areas, the impact on local insect populations should be considered.

4.7.2.5 The area for beehive placement and the range of honey collection shall be clearly defined.

**4.7.3 Beeswax and Beehive**

4.7.3.1 Beeswax shall come from the production unit of organic bee products.

4.7.3.2 The processed beeswax shall be able to ensure the supply of nest foundations for organic bee farms.

4.7.3.3 Organic beeswax is preferentially used in newly formed bee colonies or bee colonies during the conversion period. If conventional beeswax must be used, the following conditions should be met:

a) Organic beeswax is not available from the market;

b) There is evidence that conventional beeswax has not been contaminated with banned substances in organic production; and is derived from beeswax.

4.7.3.4 Beeswax of unknown origin shall not be used.

4.7.3.5 The beehive should be made of natural materials (such as wood without chemical

treatment) or plastic coated with organic beeswax.

Make and maintain beehives with wood treated with wood preservatives and other prohibited substances.

4.7.3.6 Lead paint should not be used on the surface of beehives.

**4.7.4 Introduction of bees**

4.7.4.1 For the renewal of bee colonies, the organic production unit can introduce 10% of the regular queen bee and colony each year, but the nest spleen or nest foundation in the beehive where the queen and bee colony is placed should come from the organic production unit. In this case, the conversion period may not be passed.

4.7.4.2 When a large number of bees die due to health problems or catastrophic events, and no organic colony can be obtained, bees can be supplemented with bees from conventional sources, and the requirements of 4.7.1 shall be met.

**4.7.5 Bee feeding**

4.7.5.1 At the end of the honey harvesting period, sufficient honey and pollen should be kept in the hive to prepare the bees for winter.

4.7.5.2 In non-honey-picking seasons, bees should be provided with sufficient organic honey and pollen.

4.7.5.3 When the bee colony faces hunger due to lack of honey due to climatic conditions or other special circumstances, artificial feeding of bees may be carried out, but only between the last nectaring period and 15 days before the start of the next nectaring period. If organic honey or organic syrup is available, it should be fed organically produced honey or syrup. If organic honey and organic syrup are not available, conventional honey or syrup can be fed within a specified time with the approval of the certification body.

**4.7.6 Feeding of queen bee and colony**

4.7.6.1 Encourage cross breeding of different bee colonies.

4.7.6.2 Breeding is possible, but artificial insemination of the queen bee should not be performed.

4.7.6.3 The old queen bee can be killed in order to replace the queen bee, but the wings should not be cut.

4.7.6.4 Bee swarms should not be hunted in the fall.

**4.7.7 Disease and pest control**

4.7.7.1 The health and living conditions of the colony should be ensured mainly through the hygiene and management of the beehive to prevent the occurrence of parasitic mites and other harmful organisms. Specific measures include:

a) Select robust bee colonies suitable for local conditions and eliminate vulnerable bee colonies;

b) take appropriate measures to breed and screen for disease- and parasite-resistant queen bees;

c) facilities are regularly cleaned and disinfected;

d) Replace the nest and spleen regularly;

e) keep enough pollen and honey in the beehive;

f) The beehives should be numbered one by one for easy identification, and the bee colony should be checked regularly.

4.7.7.2 In the case of disease, plants or plant-derived preparations should be preferentially used for treatment or homeopathic treatment; plants or plant-derived preparations should not be used for treatment within 30 days before the honeycomb period, and should not be located in beehives in subsequent boxes Used when on.

4.7.7.3 In the case that the plant or plant-derived preparation treatment and homeopathy cannot control the disease, control the disease according to the requirements of Table B.3, and disinfect the beehive or bee-keeping tool according to the requirements of Table B.2.

4.7.7.4 Beehives with diseased bees should be placed in a treatment or isolation area away from healthy beehives.

4.7.7.5 The beehives and materials used by bees severely infected by the disease shall be destroyed;

4.7.7.6 Antibiotics and other substances not listed in Table B.3 should not be used, except when the health of the entire colony is threatened. The treated beehives should be immediately withdrawn from the organic production and be marked, and at the same time, the conversion period of 12 months should be passed again. The bee products of that year cannot be certified as organic products.

4.7.7.7 Drone swarms can only be killed when infected by bee mites.

**4.7.8 Bee Harvesting and Processing**

4.7.8.1 The colony management and honey harvesting methods shall aim at protecting the colony and maintaining the colony; the colony shall not be killed or the pupae shall be destroyed in order to increase the bee production.

4.7.8.2 No chemical repellent should be used in honey extraction operations.

4.7.8.3 Immature honey should not be harvested.

4.7.8.4 When removing impurities in honey, the heating temperature should not exceed 47 ° C, and the heating process should be shortened as much as possible.

4.7.8.5 No honey shall be taken from the nest spleen being hatched (except for bees).

4.7.8.6 The mechanical hive should be used as much as possible to avoid the use of heating hive.

4.7.8.7 The impurities in honey should be precipitated by the action of gravity. If a fine mesh filter is used, its pore diameter should be 0.2 mm or more.

4.7.8.8 The surface of all materials contacting the honey extraction facility shall be stainless steel or coated with organic beeswax.

4.7.8.9 The surface of the honey container shall be painted with coatings approved in food and beverage packaging and covered with organic beeswax. Honey should not be brought into contact with plated metal containers or metal containers with oxidized surfaces.

4.7.8.10 Prevent bees from entering honey extraction facilities.

4.7.8.11 Extraction facilities shall be cleaned daily with hot water to keep them clean.

4.7.8.12 Chemically synthesized substances such as cyanide should not be used as fumigants.

**4.7.9 Bee Product Storage**

4.7.9.1 The finished honey should be sealed and stored at stable temperature to avoid deterioration of the honey.

4.7.9.2 The places where honey is extracted and stored should be protected from pests and rodents.

4.7.9.3 Storage of honey and bee products shall not use chemical synthetic substances such as naphthalene to control wax insects and other pests.

**4.8 Packaging, storage and transportation**

**4.8.1 Packaging**

4.8.1.1 Reusable, recyclable and biodegradable packaging materials should be used.

4.8.1.2 Packaging should be simple and practical.

4.8.1.3 Packagings or containers that have come into contact with prohibited substances should not be used.

**4.8.2 Storage**

4.8.2.1 The warehouse shall be cleaned and pest control measures shall be taken.

4.8.2.2 Storage methods such as normal temperature storage, air conditioning, temperature control, drying and humidity adjustment can be used.

4.8.2.3 Organic products should be stored separately as much as possible. If it is stored together with conventional products, a specific area should be designated in the warehouse, and necessary packaging, labeling and other measures should be taken to ensure that organic products and conventional products could be clearly identified.

**4.8.3 Transport**

4.8.3.1 Special transportation means shall be used. If non-exclusive transportation tools are used, they should be cleaned before loading organic products to avoid mixing with conventional products or contamination with prohibited substances during transportation.

4.8.3.2 On the container and / or packaging, there shall be clear organic identification and relevant instructions.

**5 Processing**

**5.1. Basic Requirements**

5.1.1 All the organic processing and following processes referred to in this part shall be effectively controlled, including:

a) Mainly use organic ingredients and minimize the use of conventional ingredients, except required by relevant laws and regulations;

b) The processing procedures shall maintain as much nutrition and original nature of the products as possible and,

c) Organic processing and its following procedures shall be separated from the processing of conventional products either by time or by location.

5.1.2 All organic food processing factories shall comply with the requirements prescribed in

GB14881, Other processing factories shall comply with related national and sectional laws and regulations.

5.1.3 Negative environmental impact caused by organic processing shall be kept to a minimum level.

**5.2 Food and feed**

**5.2.1 Ingredients, food additives and processing aids**

5.2.1.1 Weight or volume of organic ingredients shall account for no less than 95% of the total ingredients in final products.

5.2.1.2 When organic ingredients are not available, conventional agricultural ingredients may be allowed, but they shall not exceed 5% of the total ingredients. And priority should be given to the use of agricultural sources.

5.2.1.3 For the same ingredient, it is not allowed to use organic and conventional or conversion ingredient at the same time.

5.2.1.4 Water and salt that are used as ingredients shall comply with GB 5749 and GB 2721 respectively and shall not be included in the calculation of the percentage of organic ingredients stipulated in 4.2.1.1.

5.2.1.5 For food processing, food additives and processing aids listed in Tables E.1 and E.2 in Appendix E may be allowed and usage conditions shall meet the requirements set forth in GB2760.When using food additives and processing aids other than Table E.1 and Table E.2 in Appendix E, they should be evaluated in Appendix G.

5.2.1.6 Condiments, microbiological products, enzymes and other ingredients used in food processing shall meet the requirements of E.4, E.5 and E.6 respectively (where applicable).

5.2.1.7 The feed additives used in feed processing shall meet the requirements of Table F.1.

5.2.1.8 Ingredients, additives and processing aids from GMOs are prohibited.

**5.2.2 Processing**

5.2.2.1 Techniques such as mechanical, refrigerating, heating, microwaving and smoking may be used, as well as microorganism fermentation. Extraction, concentration, sedimentation and filtration may also be used, but the extraction solvents shall be limited to water, ethanol, animal and plant oil, vinegar, carbon dioxide, nitrogen or carboxylic acid, and other chemical reagents shall not be added in the process of extraction and concentration.

5.2.2.2 Measures shall be taken to prevent the commingling of organic products with conventional products, or prohibited materials.

5.2.2.3 Water used during the processing shall conform to the Standard GB 5749.

5.2.2.4 Ionizing radiation is prohibited in the process of food processing and storage.

5.2.2.5 Asbestos filtrating materials or filtrating materials which could be penetrated by hazardous materials shall be prohibited in food processing.

**5.2.3 Pest control**

5.2.3.1 The following operations shall be adopted as priority measures to prevent and control

pests:

a) To eliminate pest propagation conditions;

b) To prevent the contact of pests with processing and handling equipment; and,

c) To prevent pest propagation through control of such environmental factors as temperature, humidity, light, air, etc.

5.2.3.2 Pest catching facilities, including mechanical, hormonal, odorous, and sticky, physical barriers, diatomite, sound, light and electric equipment may be used to prevent and control pests.

5.2.3.3 Steam may be used and, if necessary, detergents and disinfectants listed in table E.3 may be used.

5.2.3.4 Ways of spraying and fumigation with Chinese herbs are recommended when emergency of severe pest strikes occurred in the processing and storage areas. Sulfur treatment is not allowed.

**5.2.4 Packaging**

5.2.4.1 Packaging materials made of wood, bamboo, plant stems, plant leaves and paper are recommended.

5.2.4.2 Food-grade packaging materials should be used for food raw materials and products.

5.2.4.3 The packaging of raw materials and products should meet the requirements of GB 23350, and the biodegradation and recycling of packaging materials should be considered.

5.2.4.4 Carbon dioxide and nitrogen may be allowed to be used as packing filling agents.

5.2.4.5Packaging materials containing synthetic fungicide, preservative and fumigant are prohibited.

5.2.4.6 Organic products shall not be packed in bags or containers that have been in contact with any prohibited substance.

**5.2.5 Storage**

5.2.5.1 Warehouses shall be clean, without pests and hazardous residues,.

5.2.5.2 Certified products shall not be contaminated by other substances in the storage process.

5.2.5.3 Besides storage in ambient temperature, the following storage measures may be allowed:

a) Warehouse air conditioning;

b) Temperature control;

c) Drying;

d) Humidity adjustment.

5.2.5.4 Organic products, packaging materials and ingredients shall be stored separately. If they have to be stored together with conventional products, specific area(s) shall be assigned. Effective measures shall be adopted to prevent commingling with other products.

**5.2.6 Transportation**

5.2.6.1 Vehicles shall be cleaned before loading organic products.

5.2.6.2 In the process of transportation, commingling or contamination with conventional products shall be avoided.

5.2.6.3 During the processes of transportation, loading and unloading, organic labeling and related

description shall not be spoiled or destroyed in the package.

**5.3 Textiles**

**5.3.1 Raw materials**

5.3.1.1 Raw fiber materials of textiles shall be organic;

5.3.1.2 Environmental impact shall be minimized when raw materials are processed into fibers;

5.3.1.3 Non-textile raw materials in a textile product shall be harmless to the environment and humans in the processes of production, utilization and wastes disposal.

**5.3.2 Processing**

5.3.2.1 Good manufacturing practice shall be adopted in textile processing so that environmental impact can be reduced to a minimal level;

5.3.2.2 Materials that are detrimental to human and the environment shall be prohibited; processing aids shall not contain carcinogenic, mutagenic, teratogenic and sensitizing elements. $LD_{50}$ of mammals shall be higher than 2000 mg/kg;

5.3.2.3 Materials that are known to be bio-accumulative and are not biodegradable are prohibited;

5.3.2.4 Energy consumption in textile processing shall be minimized and renewable energy shall be used whenever possible;

5.3.2.5 Organic and conventional processing may be allowed to remain together if separation of the two may lead to substantial environmental or economic disadvantages on the premise of taking effective measures to ensure that organic textiles are not contaminated by prohibited substances.

Note: take measures to prevent circulating fluids used in conventional textile processing (such as alkali washing, sizing, rinsing, etc.) to pollute organic textiles (such as recovering fluids at risk of contamination and thoroughly cleaning the relevant fluid tanks before organic processing).

5.3.2.6 Processing organizations shall adopt effective sewage treatment technology to assure that the discharge of contaminants does not exceed the standard of GB4287;

5.3.2.7 An environmental management improvement plan shall be established and implemented.

5.3.2.8 Surfactant used to boil cocoon and scour wool shall be readily biodegradable.

5.3.2.9 Sizing slurry shall be easy to degrade or at least 80% recycled.;

5.3.2.10 Sodium hydroxide or other alkaline materials may be allowed for mercerizing, but shall be recycled to the highest possible level;

5.3.2.11 Textile process oil and weaving and knitting oil (“needle” oil) shall come from readily biodegradable oil agents or that are extracted from plants.

**5.3.3 Dyestuff and dyeing**

5.3.3.1 Dyestuff that is derived from plant origin or mineral origin shall be used.

5.3.3.2 Hazardous dyestuff and materials that are prohibited by GB/T 18885 shall not be permitted.

5.3.3.3 Natural thickening agents of printing and dyeing are permitted

5.3.3.4 Biological degradable softening agents are permitted.

5.3.3.5 Materials that can produce organic halogen in wastewater shall be prohibited in cleaning

up the printing and dyeing equipment.

5.3.3.6 Heavy metal concentration in dyestuff shall not exceed the levels listed in Table H.1

**5.3.4 Final products**

5.3.4.1 Auxiliaries (such as lining, ornament, button, zipper, and suture) shall be materials that are harmless to the environment; and natural materials, wherever possible, shall be used.

5.3.4.2Processing aids that are detrimental to humans and the environment shall not be used in processing final products (e.g. sand washing and water washing).

5.3.4.3Concentration of hazardous materials in final products shall not exceed the standard of GB/T18885.

**6 Labeling and marketing**

**6.1 Labelling**

6.1.1 Labeling of organic products shall comply with requirements laid down in relevant governmental laws, regulations and standards.

6.1.2 The Chinese organic product certification mark is only applied to the **labeling** of organic products that are produced or processed and certified in accordance with the requirements of this standard.

6.1.3 Processed products containing no less than 95% certified organic ingredients and having been organically certified may be labeled as “organic” before the name of the product, and Organic Product Certification Mark of China shall be affixed on the products or packages. Labeling of products shall not mislead consumers, with products of conventional and conversion to organic labeled as organic

6.1.4 Characters, graphics or symbols on the label of the products shall be clear and prominent. Graphics and symbols shall be visual and normative. The color of the character, graph and symbol shall be in contrast with the background color or bottom color.

6.1.5 Labeling and Organic Product Certification Mark of China on imported organic products shall also meet the requirements established in this part.

**6.2 Calculation of the percentage of organic ingredients**

6.2.1 Calculating the percentage of organic ingredients shall not contain water and salt added in the processing.

6.2.2 For the organic products in solid form, the percentage of organic ingredients shall be calculated using the formula (1):

$$Q = \frac{m1}{m} * 100\% \qquad (1)$$

where in the formula:

Q— Percentage of the organic ingredients, %;

m1— Total weight of the organic ingredients, kg;

m— Total weight of the products, kg.

All results of the calculation shall be rounded down to the nearest whole number.

6.2.3 For the organic products in liquid form, percentage of organic ingredients shall be calculated using formula (2) (for the liquid products made of concentrated ingredients, percentage of organic ingredients shall be calculated on the basis of concentrates of ingredients and finished products):

$$Q = \frac{V1}{V} * 100\% \qquad (2)$$

where in the formula:

Q—Percentage of the organic ingredients, %;

V1—Total volume of the organic ingredients, L;

V—Total volume of the products, L.

All results of the calculation shall be rounded down to the nearest whole number.

6.2.4 For the organic products containing in both solid and liquid forms, percentage of organic ingredients shall be calculated using the following formula:

$$Q = \frac{m1 + m2}{m} * 100\%$$

where in the formula,

Q— Percentage of the organic ingredients, %;

m1— Total weight of the organic ingredients in solid form, kg;

m2— Total weight of the organic ingredients in liquid form, kg;

m— Total volume of the products, kg.

All results of the calculation shall be rounded down to the nearest whole number.

**6.3 Organic Product Certification Mark of China**

6.3.1 Graphics and colors of Organic Product Certification Mark of China shall be in Graphic 1

6.3.2 All products presented "organic "shall be affixed Organic Product Certification Mark of China, its sole identification code, the name of certification body or its logo to the label for the certified products or the smallest selling package of the products.


Graphic 1: Organic Product Certification Mark of China

6.3.3 According to the product character, Organic Product Certification Mark of China a shall be either affixed to packages as a sticker, or printed directly on, and will be affixed to the product or the smallest selling package. Raw materials for processing do not have to be affixed the Mark if it used not for retail.

6.3.4 Printed Organic Product Certification Mark of China shall be clear and prominent.

6.3.5 Organic Product Certification Mark of China and Conversion to Organic Product Certification Mark of China printed on labels, instructions and marketing materials of the products shall be enlarged or reduced in size without any change to the shape and color.

**6.4 Requirements for marketing**

6.4.1 Sellers shall adopt but not be limited to the following measures to keep integrity and traceability of organic products during organic marketing:

- To prevent commingling of organic products with convtional products;
- To prevent contact of organic products with prohibited materials of this Standard; and,
- To keep records of purchasing, transportation, storage, incoming and outgoing and sales for organic products.

6.4.2 When organic products are sold, the purchaser shall ask for organic product certification certificate, organic product transaction certificate etc.

Note: when the products with organic codes are sold, transaction certificate shall not be requested.

6.4.3 Processers and handlers shall verify the authenticity of the organic certificate and keep the copy of the organic certificate when purchasing the organic products.

6.4.4 For products sold in bulk, products without packaging and live animal, organic dedicated sales or display counter shall be set up in marketing areas and be separated from counter or area for non-organic products. A copy of the organic certificate shall be displayed prominently in sales or display counter for organic products.

**7 Management system**

**7.1 Basic requirements**

**7.1.1** Organic products producers, processors and handlers （Production, processing and operator of organic products for short）shall gain legal land use rights and legal business certification documents.

**7.1.2** Organic products producers, processors and handlers shall establish and maintain management systems for organic production, processing and handling activities According to the requirements of this standard. Management systems shall develop documents required in part 7.2, which shall be implemented and maintained.

**7.2 Document Requirements**

**7.2.1 Document content**

The documents of the management system should include:

a) Map showing the location of production units, or processing/handling facilities;

b) Management manual for organic production, processing and handling operations;

c) Operation specifications for organic production, processing and handling;

d) System records of organic production, processing and handling operations.

**7.2.2 Document control**

Documents required by the management system shall be updated in a timely manner. Valid version of the documents shall be available when need.

**7.2.3** Map showing the location for the sites of production units, processing and handling facilities

Map showing the location for the sites of production units, processing and handling facilities shall be drawn to scale. The map shall indicate by the following information:

a) Location of farming plots, wild plants collection, aquatic fishing areas, aquaculture areas, beekeeping areas and beehives distribution, livestock farms and pasture, free-range exercise areas or grazing areas, excreta disposal sites, processing and handling areas;

b) Rivers, wells and other sources of water;

c) Usage of adjacent land and boundary land;

d) Segregation areas for livestock quarantine;

e) Location of processing, packaging workshop, warehouses and other relevant equipment;

f) Main markers, which are able to indicate the characteristics of production unit.

**7.2.4 Management manual**

A quality management manual shall be developed and maintained. It shall include :

a) A brief description of the organic producer, processor and handler;

b) Quality policies and quality objectives for organic production, processing and handling;

c) Organizational structure, and associated responsibilities and authority for relevant positions;

d) Organic label management;

e) Traceability and product recall system;

f) Internal inspection;

g) Document and record control;

h) Complaints and appeal handling;

i) Continuous improvement.

**7.2.5 Operating rules**

Operating procedures shall be developed and implemented, which shall at least include:

a) Specifications for organic crop production, edible mushroom cultivation, wild plants collection, livestock and poultry breeding, aquaculture/fishing, bee breeding;

b) Precautions for preventing contamination by prohibited substances during organic production, processing and handling operations;

c) Control measure for preventing commingling of organic and non-organic products;

d) Specifications for crop and edible fungi harvesting or collection, post harvest activities including transportation, processing and storage operations;

e) Specifications for animal products slaughtering, fishing, processing, transportation and storage;

f） operation procedures for each process such as transportation and storage of processed products

g）Specifications for maintenance and cleaning of transport vehicle, machinery, equipment, storage facility;

h） Specifications for processing plant sanitation management and pest control;

i） Specifications for label and lot number control;

j） Specifications for workers welfare and labor protection.

**7.2.6 Records**

Organic producers, processors and handlers shall establish and keep records. The records shall be unambiguous and genuine; provide valid proofs for organic production, processing and handling operations. The records shall be maintained at least 5 years, including but not be limited to:

a) History records with the date and quantity of prohibited materials used;

b) Varieties, origin and quantity of the seeds, seedlings, young livestock and poultry as well as other propagating materials;

c) Self-made composting record (if necessary);

d) Fertilizer used type, quantity, date of application, and plots;

e) Names, ingredients, application methods, date and quantity of the materials for plant disease, insect and weed control;

f) Detailed information of entry and exit of animal breeding unit shall include (variety, time, quantity, etc.)

g) Records of veterinary medicine application for animal breeding units shall include:name, composition, time, quantity, etc.

h) Detailed information about feed and feed additives in animal breeding units shall include: varieties, ingredients and applying date, etc;

i) The accounting records of all production inputs (source, purchase quantity, the use of the whereabouts and number, stock number, etc.) and purchase receipts;

j) Plant products harvesting records, include Variety, time, quantity, etc

k) Animal (Bee) products slaughtering, fishing and extraction records;

l) Processing records for raw material purchasing, processing, packaging, labeling, storage and transportation, etc;

m) Pest control records for processing facilities and cleaning records for processing, storage and transportation facilities, etc;

n) Selling records and organic label control records;

o) Training records;

p) Internal inspection records.

**7.3 Resource Management**

**7.3.1** Organic producers, processors and handlers shall have competent facilities and technical resources for organic production and processing.

**7.3.2** Management staff for organic production, processing and handling operations shall be

designated and meet the following requirements:

a) To be one of the main responsible persons in the organizations;
b) To know relevant laws, regulations and other requirements of the governmental authorities;
c) To understand the requirements of this standard;
d) To have relevant technology or experiences of agriculture production, processing and handling;
e) To be familiar with organic production, processing and handling management system and production, processing and handling operations of the organizations.

**7.3.3** Internal inspectors shall be assigned and meet the following requirements:

a) To know relevant laws, regulations and other requirements of the governmental authorities;
b) To be independent from inspected party;
c) To be familiar with the requirements of this standard;
d) To have relevant technology or experiences of agriculture production, processing and handling;
e) To be familiar with organic production, processing and handling management system and production and/or processing operations of the organizations.

**7.4 Internal Inspection**

**7.4.1** An internal inspection system shall be set up to ensure that the organic production, processing and handling management system and production operations comply with the requirements established of this standard.

**7.4.2** Internal inspections shall be undertaken by internal inspectors at least once a year

**7.4.3** Responsibilities of the internal inspectors are:

a) To undertake internal inspections for quality management system according to the requirements of this part, and put forward corrective actions for non-compliances;
b) To undertake internal inspections for production, processing and handling of the organization In accordance with the requirements of this standard.
c) To cooperate with the inspection and certification of the certification body.

**7.5 Traceability System and Product Recall**

Organic producers, processors and handlers shall establish a comprehensive system of traceability, and keep detailed records of the entire process of production (Such as: field maps, record of farming activities, processing, storage and sales records, records of incoming and outgoing, and marketing, etc.), as well as traceable production batch system.

Organic producers, processors and handlers shall establish product recall system, including: conditions of recall, handling of recall products, corrective measures and mock recall etc.

Producers should keep the products recall records, including: recall notifications, remedies, causes, treatment, etc.

**7.6 Complaints**

Organic producers, processors and handlers shall develop and maintain the procedures for

handling customer complaints, and shall keep records of the entire process of handling complaints, including: acceptance, registration, confirmation, investigation, tracking, feedback.

### 7.7 Continuous Improvement

The organization shall continuously improve the effectiveness of the management system for organic production, processing and handling to eliminate non-conformities and potential non-conformities activities. Organic producers, processors and handlers shall:

a) Identify the causes of the non-conformities;

b) Evaluate the requirements for the elimination of non-conformities;

c) Confirm and implement necessary measures;

d) Keep records for the result of corrective actions taken;

e) Review the adopted corrective actions or preventive measures.

## Appendix A
## （Normative Appendix）
## Input Materials Permitted in Organic Plant Production

The permitted soil fertility and improvement substances in the production of organic plants are shown in table A.1.
The allowed plant protection products in organic plant production are shown in table A.2.
The permitted detergents and disinfectants used in the production of organic plants are shown in table A.3.

**Table A.1 Fertilizers and Soil Conditioners**

| Category | Name and Composition | Conditions for Use |
|---|---|---|
| I. Plant and animal origin | Plant materials (straws, green manure, etc.) | |
| | Livestock and poultry excrements and composts derived therefrom (including composted farmyard manure) | Completely composted and fully fermented. |
| | Anaerobic fermentation product of livestock and poultry excrements and plant materials (biogas waste fertilizer) | |
| | Seaweeds or seaweed products | Only allowed using the following measures:<br>Physical processes, including dehydration, refrigeration, and grinding;<br>Extraction through water or acid and/or alkali;<br>Fermentation. |
| | Wood, bark, sawdust, wood chips, wood ash, charcoal and humus materials | Not to be chemically treated after felling; used as soil mulching materials or composted. |
| | By-products from animals (blood meal, powdered meat, bone meal, hoof meal, horn meal, coat, feather, hair meal, fishmeal, milk, and dairy products etc.) | No prohibited materials added; composted or fermented. |
| | Mushroom culture wastes and earthworm culture substrates | The raw materials of substrates must be included in this table and the substrates should be composted before use. |
| | By-products of food industry | After compost or fermentation. |
| | Straw ash | From firewood burning. |

| | | |
|---|---|---|
| | Peat | No synthetic additive contained; prohibited for using as soil amendment; only as substrates for potted plant. |
| | Seed cake | Not chemically processed. |
| II. Mineral origin | Phosphate rock | Natural materials. Cadmium content of not more than 90 mg/kg of $P_2O_5$. |
| | Potassium rock powder | Natural materials without chemical concentration. Chloride content of less than 60%. |
| | Borax | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Trace elements | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Magnesium rock powder | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Sulfur | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Limestone, gypsum and chalk | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Clays (e.g. perlite, vermiculite, etc) | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Sodium chloride | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Lime | Only allowed for using in tea gardens to adjust soil pH. |
| | Basic slag | Not chemically treated, and no chemically synthesized materials added. |
| | Calcium and magnesium carbonate | Natural materials, not chemically treated, and no chemically synthesized materials added. |
| | Epsom salt | Not chemically treated, and no chemically synthesized materials added. |

| | | |
|---|---|---|
| III. Microbial origin | Biodegradable processing by-products of microbial origin, e.g. by-products of brewery or distillery processing | No synthesized chemicals added. |
| | Microorganisms and Microbial Preparations | No synthesized chemicals added. |

**Table A.2 The allowed plant protection products in organic plant production**

| Origin | Name and Composition | Conditions for Use |
|---|---|---|
| I. Plant and animal origin | Azedarach preparation (extracts of *melia azedarach*, *Azadirachta indica*, etc.) | Insecticide |
| | Natural pyrethrum preparation extracted from *Chrysanthemum cinerariaefolium* | Insecticide |
| | Matrine and matrine oxide (extracts of *Quassia amara*, etc.) | Insecticide |
| | Preparations of Rotenone (e.g. *Derris ellipta*) | Insecticide |
| | Osthole (extracts of *Frutus cnidii*) | Insecticide and fungicide |
| | Jamaicin (extracts of coptis, phellodendron, etc.) | Fungicide |
| | Rheochrysidin (extracts of rhubarb, giant knotweed, etc.) | Fungicide |
| | Plant oils (e.g. pennyroyal, pine oil, and parsley oil) | Insecticide, acaricide, fungicide, and sprout inhibitor |
| | Oligosaccharide (chitin) | Fungicide and plant growth regulator |
| | Natural trapping and nematicide material (e.g. marigold, maidenhair and mustard oil) | Nematicide |
| | Natural acid (e.g. table vinegar, wood vinegar, and bamboo vinegar) | Fungicide |
| | Mushroom proteoglycan (extracts of mushrooms) | Fungicide |
| | Protein hydrolysate | Attractant, can only be used together with proper products in this table under permitted condition |
| | Milk | Fungicide |
| | Beeswax | Used for graft and pruning |
| | Propolis | Fungicide |
| | Gelatine | Insecticide |
| | Lecithin | Fungicide |
| | Plant extracts with repelling effect (extracts of garlic, mint, pepper, Chinese pepper, lavender, *Bupleurum*, wormwood, etc.) | Repellent |
| | Natural enemy of pest (e.g. *Trichogramma spp.*, ladybug, aphid lion, etc.) | Pest control |

| | | |
|---|---|---|
| II. Mineral origin | Copper salt (copper sulphate, copper hydroxide, copper oxychloride, copper caprilic acid, etc.) | Fungicide; The maximum amount of copper per hectare should not exceed 6kg every 12 months. |
| | Lime sulfur | Fungicide, insecticide, and acaricide |
| | Bordeaux liquid | Fungicide; up to 6 kg copper per ha per year |
| | Calcium oxide（limewater） | Fungicide and insecticide |
| | Sulfur | Fungicide, acaricide, repellent |
| | Potassium permanganate | Fungicide and bactericide; only in fruit trees and grape |
| | Potassium bicarbonate | Fungicide |
| | Wax oil | Insecticide and acaricide |
| | Light mineral oil | Insecticide, fungicide; only in fruit trees, grape, and tropic crops (e.g. banana) |
| | Calcium chloride | Can only be used to cure calcifames |
| | Diatomaceous earth | Insecticide |
| | Clay (e.g. bentonite, pearlite, vermiculite, zeolite, etc.) | Insecticide |
| | Silicates (sodium silicates, quartz) | Repellent |
| | Ferric phosphate (ferric ion） | Molluscicide |
| III. Microbial origin | Fungi and fungal extractives (e.g. *Beauveria bassiana*, *Verticillium*, *Trichoderma*, etc.) | Pesticide, fungicide, and herbicide |
| | Bacteria and bacterial extractives (e.g. *Bacillus thuringiensis*, *Bacillus subtilis*, *Bacillus cereus*, *Bacillus licheniformis*, *Fluorescent Pseudomonas*, etc.) | Pesticide, fungicide, and herbicide |
| | Virus and viral extractives (e.g. nuclear polyhedrosis virus, granulosis virus, etc.) | Insecticide |
| IV. Others | Calcium hydroxide | Fungicide |
| | Carbon dioxide | Insecticide; used for storage facility |
| | Ethyl alcohol | Fungicide |
| | Salt and brine | Fungicide; only in seed treatment, especially rice seed |
| | Alum | Fungicide |
| | Soft soap (e.g. potassium salt of fatty acid) | Pesticide |

| | | |
|---|---|---|
| | Ethylene | For ripening of banana, kiwi fruit, and persimmon; adjust flowering of pineapple; inhibit sprouting of potato and onion |
| | Quartz sand | Fungicide, acaricide, repellent |
| | Pheromones | Only in traps and dispensers |
| | Diammonium phosphate | Attractant; only in traps |
| V. Traps and barriers | Physical measures (e.g. color traps, mechanical traps) | |
| | Covers (Straw, weeds, mulch. fly net) | |

**Table A.3 The permitted detergents and disinfectants used in the production of organic plants**

| Name | Conditions for Use |
|---|---|
| Acetic acid (non-synthetic) | Equipment cleaning |
| Vinegar | Equipment cleaning |
| Ethanol | Disinfection |
| Isopropanol | Disinfection |
| Hydrogen peroxide | Only food grade hydrogen peroxide; equipment cleaning |
| Sodium carbonate and sodium bicarbonate | Equipment disinfection |
| Potassium carbonate and potassium bicarbonate | Equipment disinfection |
| Bleach | Including calcium hypochlorite, chlorine dioxide and sodium hypochlorite; may be used for disinfecting and cleaning the food contact surface. Residual chlorine content in rinse water that has direct contact with plant products should comply with the requirements of GB5749. |
| Peracetic Acid | Equipment disinfection |
| Ozone | Equipment disinfection |
| Potassium hydroxide | Equipment disinfection |
| Sodium hydroxide | Equipment disinfection |
| Citric acid | Equipment cleaning |
| Soap | Biodegradable soap only; equipment cleaning |
| Soap-based algaecide and demosser | Algaecide, disinfectant and fungicide; for irrigation system cleaning; no prohibited materials contained |
| Potassium permanganate | Equipment disinfection |

## Appendix B
## (Normative Appendix)
## Substances Allowed for Use in Organic Animal Production

The permitted additives and substances for animal nutrition are shown in table B.1.

The permitted detergents and disinfectants for animal breeding sites are shown in table B.2.

The permitted substances for disease and pest control in apiculture are shown in table B.3.

**Table B.1 The permitted additives and substances for animal nutrition**

| No. | Name | Note | INS |
|---|---|---|---|
| 1. | Iron | Ferrous (II) sulphate<br>Ferrous (II) carbonate<br>Ferric oxide | |
| 2. | Iodine | Calcium iodate<br>Sodium iodide<br>Potassium iodide | |
| 3. | Cobalt | Cobaltous (II) sulphate<br>Cobaltous (II) chloride<br>Cobalt carbonate | |
| 4. | Copper | Copper (II) sulphate,<br>Copper oxide for ruminants | |
| 5. | Manganese | Manganous (II) carbonate<br>Manganous oxide and manganic oxide<br>Manganous (II) sulfate<br>Manganous chloride | |
| 6. | Zinc | Zinc oxide<br>Zinc carbonate<br>Zinc sulphate | |
| 7. | Molybdenum | Sodium molybdate | |
| 8. | Selenium | Sodium selenite | |
| 9. | Sodium | Sodium chloride<br>Sodium sulfate | |
| 10. | Potassium | Potassium carbonate<br>Potassium bicarbonate<br>Potassium chloride | |
| 11. | Calcium | Calcium carbonate（stone powder, shell powder）<br>Calcium lactate<br>Calcium sulfate, calcium chloride | |
| 12. | Phosphorus | Dicalcium phosphate<br>Monocalcium phosphate<br>Tricalcium phosphate | |
| 13. | Magnesium | Magnesium oxide<br>Magnesium chloride<br>Magnesium sulfate | |

| No. | Name | Note | INS |
|---|---|---|---|
| 14. | Sulfur | Sodium sulfate | |
| 15. | Vitamins | Vitamins derived from raw materials occurring naturally in feedstuffs. Synthetic vitamins identical to natural vitamins for monogastric animals. Synthetic vitamins A, D, and E identical to natural vitamins for ruminants provided that they are not available in necessary quantities through their feed rations. | |
| 16. | Micro-organisms | Zoo-technical additives，not GMOs. | |
| 17. | Enzymes | Silage and technological additives, not derived from or by GMOs. | |
| 18. | Preservatives and Silage Additives | Sorbic acid, formic acid, acetic acid, lactic acid and citric acid can only be used when the weather conditions cannot meet the requirements of full fermentation. | - |
| 19 | Binder and anti-caking agent | Calcium stearate, silica | - |
| 20 | By-products of food and food industry | Such as whey, cereal flour, molasses, beet pulp, etc. | - |

**Table B.2 The permitted detergents and disinfectants for animal breeding sites**

| Name | Conditions for use |
|---|---|
| Potassium and sodium soap | |
| Water and steam | |
| Milk of lime (water solution of Calcium hydroxide) | |
| Lime (Calcium hydroxide) | |
| Hydrated lime (calcium hydroxide) | |
| Sodium hypochlorite | For facility and equipment disinfection |
| Calcium hypochlorite | For facility and equipment disinfection |
| Chlorine dioxide | For facility and equipment disinfection |
| Potassium permanganate | 0.1％potassium permanganate solution may be used to avoid corrosion. |
| Sodium hydroxide | |
| Potassium hydroxide | |
| Hydrogen peroxide | Food grade, as external parasiticide. May also be used as disinfectant in drinking water for livestock. |
| Natural essences of plants | |

| | |
|---|---|
| Citric acid | |
| Peroxyacetic acid | |
| Formic acid | |
| Lactic acid | |
| Oxalic acid | |
| Isopropyl alcohol | |
| Acetic acid | |
| Alcohol | For disinfection and sterilization |
| Iodine (such as tincture of iodine) | As cleaning agent, shall be rinsed with hot water. Non-elemental and not to exceed 5% solution by volume. |
| Nitric acid | For dairy equipment, no contact with soil, livestock or poultry allowed. |
| Phosporic acid | For dairy equipment, no contact with soil, livestock or poultry allowed. |
| Formaldehyde | For disinfection of facility and equipment |
| Cleaning and disinfection products for teats | In compliance with relevant national standards |
| Sodium carbonate | |

**Table B.3 The permitted substances for disease and pest control in apiculture**

| Name | Conditions for Use |
|---|---|
| Methanoic acid (formic acid) | For parasitic mite control, may be used between the last honey harvest and 30 days before adding honey supers. |
| Lactic acid, acetate acid, oxalic acid | Pest and disease control |
| Menthol | For respiratory parasitic mite control |
| Plant essential oil (thymol, eucalyptol or camphor) | Repellent |
| Caustic soda | Disease control |
| Caustic potash | Disease control |
| Sodium chloride | Disease control |
| Plant ash | Disease control |
| Hydrated lime | Disease control |
| Sulfur | Only for hive and comb disinfection |
| Bacillus thuringiensis | Not GMOs |
| Bleach (Sodium hypochlorite, calcium hypochlorite, or chlorine dioxide) | For apiculture equipment sterilization |
| Steam and flame | For hive sterilization |
| Agar | Water extracts only |
| Cholecalciferol (vitamin D3) | As rodenticide. In a safety manner for bee and bee products. |

## Appendix C

## (Informative Appendix)

## Evaluation Guideline for Other Inputs Used in Organic Production

### C.1 Scope

In case that the products in Appendix A and Appendix B involving the production and cultivation of organic animals and plants fail to meet the requirements, other substances other than Appendix A and Appendix B can be evaluated according to the evaluation criteria described in this appendix.

### C.2 Principles

#### C.2.1 Substances to be used for fertilization and soil conditioning purpose

C.2.1.1 The substance is essential for achieving or maintaining soil fertility,to fulfill specific nutrient requirements, or for specific soil-conditioning and rotation purposes, which cannot be satisfied or replaced by the practices and substances outlined in Appendix A and in this part.

C.2.1.2 The substance is of plant, animal, microbial or mineral origin, which may be prepared by the following means:

a) Physical treatment (mechanical or thermal);

b) Enzymatic treatment; or

c) Microbial treatment (composting or digestion).

C.2.1.3 Reliable experimental data proves that use of the substance does not lead to unacceptable influences on or pollution of environment, including soil organisms.

C.2.1.4 The use of the substance shall not produce unacceptable influences on the quality and safety of final products.

#### C.2.2 Plant protection products

C.1.2.1 The substance is necessary for controlling pests or specific diseases, which cannot be controlled by other biological, physical methods, plant breeding and/or effective management techniques.

C.2.2.2 The substance is from plant, animal, microbial or mineral origins, which may be prepared by the following means:

a) Physical treatment;

b) Enzymatic treatment; or

c) Microbial treatment.

C.2.2.3 Reliable experimental data proves that the use of the substance shall not lead to or cause unacceptable influences on or pollution of the environment.

C.2.2.4 When a substance is not available in quantities in its natural form, the use of chemically synthesized identical substances may be considered, for example chemically synthesized pheromones (sexual lure). These substances shall not directly or indirectly contaminate the environment or products.

#### C.2.3 Inputs permitted for animal nutrition or for feed processing purposes

C.2.3.1 The substance is essential for fulfilling animal specific nutrient requirements or for feed

processing purposes, which cannot be met by the practices and substances outlined in table B.1 and in this part.

C.2.3.2 The substance (active ingredient) is of plant, animal, microbial or mineral origins, which may be prepared by the following means:

a) Physical treatment;

b) Enzymatic treatment; and

c) Microbial treatment.

C.2.3.3 Reliable experimental data proves that the use of the substance does not lead to or cause unacceptable influences on or pollution of the environment.

**C.2.4 Inputs permitted for cleaning or disinfection purpose in livestock and poultry farms, or for pest and disease control in bee keeping**

C.2.4.1 The substance is essential for cleaning, disinfection in livestock and poultry farms, or for pest and disease control purposes in bee keeping, which cannot be met by the practices and substances outlined in table B.2 or B.3 of Appendix B and in this part.

C.2.4.2 The substance (active ingredient) is of plant, animal, microbial or mineral origins, which may be prepared by the following means:

a) Physical treatment;

b) Enzymatic treatment; and

c) Microbial treatment.

C.2.4.3 Reliable experimental data proves that the use of the substance does not lead to or cause unacceptable influences on or pollution of the environment.

C.2.4.4 When a substance is not available in quantities in its natural form, the use of chemically synthesized identical substances may be considered. These substances shall not directly or indirectly contaminate the environment or products.

**C.3 Evaluation Procedure**

**C.3.1 Necessity**

The input shall be used where necessary. Arguments to prove the necessity of an input shall be drawn from criteria such as yield, product quality, environmental safety, ecological protection, landscape, and human and animal welfare.

The use of an input may be restricted to:

a) Specific crops (especially perennial crops) or animals;

b) Specific regions;

c) Specific conditions under which the input may be used.

**C.3.2 Nature and way of production**

**C.3.2.1 Nature**

The origin of the input shall usually be (in order of preference):

a) Organic substance (vegetative, animal, microbial);

b) Mineral.

Non-natural products, which are chemically synthesized and identical to natural products, may be used.

When there is any choice, renewable inputs are preferred. The next best choice is inputs of mineral origin and the third choice is inputs which are chemically identical to natural products. Ecological, technical or economic arguments have to be taken into consideration in the allowance of chemically identical inputs.

**C.3.2.2 Way of production**

The ingredients of an input may be processed by the following means:

a) Mechanical;

b) Physical;

c) Enzymatic;

d) Microbial;

e) Chemical (as an exception and restricted).

**C.3.2.3 Collection**

The collection of raw materials comprising the input shall neither affect the stability of the natural habitat nor affect the maintenance of any species within the collection area.

**C.3.3 Environmental safety**

**C 3.3.1 Basic requirements**

Input shall not be harmful or have a lasting negative impact on the environment. Nor shall the input give rise to unacceptable pollution of surface or ground water, air or soil. All stages during processing, use and breakdown of the substance shall be evaluated.

The following characteristics of the input substance shall be considered:

**C 3.3.2 Degradability**

All inputs shall be degradable to $CO_2$, $H_2O$, and/or to their mineral form.

Inputs with a high acute toxicity to non-target organisms shall have a maximum half-life of 5 days.

Natural substances used as inputs which are not considered toxic do not have to be degradable within a limited time.

**C 3.3.3 Acute toxicity to non-target organisms**

When an input has relatively high acute toxicity to non-target organisms, its use shall be restricted. Measures must be taken to guarantee the survival of these non-target organisms. Maximum amounts allowed for application may be set up. When it is not possible to take adequate measures to ensure the maintenance of non-target organisms, the use of the input is not permitted.

**C 3.3.4 Long-term chronic toxicity**

Inputs which can accumulate in organisms or ecosystems, and inputs which have, or are suspected of having, mutagenic or carcinogenic properties shall not be used. If there are any risks, sufficient measures shall be taken to reduce the risks to an acceptable level and to prevent long lasting negative environmental effects.

**C 3.3.5 Chemically synthesized products and heavy metals**

Inputs shall not contain harmful amounts of manufactured chemicals (xenobiotic products). Chemically synthesized products may be accepted only if its nature is identical to natural substance.

Mineral inputs should contain as few heavy metals as possible. Due to the lack of any alternative, and longstanding, traditional use in organic agriculture, copper and copper salts are permitted to be used for the time being. The use of copper in any form in organic agriculture must be seen, however, as temporary permission and the use shall be restricted with regard to the environmental impacts.

**C.3.4 Effects on human health and product quality**

**C.3.4.1 Human health**

Inputs shall not be harmful to human health. All stages during processing, using and degradation shall be taken into account. Measures shall be taken to reduce any risks and application standards shall be set for inputs used in organic production.

**C.3.4.2 Product quality**

The input substances shall not produce adverse influences on product quality (for example taste, shelf life and appearance).

**C.3.5 Ethical aspects - animal living conditions**

Inputs shall not have negative effects on the natural behavior or physical functioning of animals kept on the farm.

**C.3.6 Socio-economic aspects**

Consumers' perception: Inputs shall not lead to resistance or opposition from consumers against organic products. An input might be considered by consumers to be unsafe to the environment or human health, although this has not been scientifically proven. Inputs shall not interfere with the general feeling or opinion about what is natural or organic (e.g. genetic engineering).

## Appendix D
## （Normative Appendix）
## Minimum Areas Indoors and Outdoors for Different Types of Animals

Table D.1 shows the requirement of Minimum Areas Indoors and Outdoors of Livestock.

Table D.2 shows the requirement of Minimum Areas Indoors and Outdoors for Poultry.

**Table D.1 The Requirement of Minimum Areas Indoors and Outdoors of Livestock**

| Types | Minimum live weight | Indoor area | Outdoor area |
|---|---|---|---|
| | | ㎡/Head | ㎡/Head |
| Breeding and fattening bovine and equidae | ≤100kg | 1.5 | 1.1 |
| | ≤200kg | 2.5 | 1.9 |
| | ≤350kg | 4.0 | 3 |
| | ≥350kg | 5 | 3.7 |
| Dairy cows | | 6 | 4.5 |
| Bulls for breeding | | 10 | 30 |
| Sheep and goats | | 1.5（Adult sheep） | 2.5 |
| | | 0.35（Lamb） | 0.5 |
| Farrowing sows with piglets | | 7.5（Adult sows） | 2.5 |
| Fattening pigs | ≤50kg | 0.8 | 0.6 |
| | ≤85kg | 1.1 | 0.8 |
| | ≤110kg | 1.3 | 1 |
| Weaned piglets | ≥40 d or ≤30kg | 0.6 | 0.4 |
| Sows for breeding | | 2.5 | 1.9 |
| Boars for breeding | | 6 | 8.0 |

**Table D.2 The Requirement of Minimum Areas Indoors and Outdoors for Poultry**

| Types | Indoor area（Net area that animal can be used） | | Outdoor area （Activity area ㎡/Head） |
|---|---|---|---|
| | Quantity head/㎡ | Nest | |
| Laying hens | 6 | 7 heads /Nest or 120cm$^2$/head | 4，provided that the amount of manure by nitrogen≤170kg/ha/year |
| Fattening poultry（in fixed housing） | 10（Live weight ≤21kg/㎡） | | Broilers and guinea fowl, 4<br>Ducks, 4.5<br>Turkey, 10<br>Geese, 15<br>Provided that the amount of manure by nitrogen≤170kg/ha/year for all the species mentioned above |
| Fattening poultry（in mobile housing） | 16（Live weight≤30kg/㎡） | | 2.5, provided that the amount of manure by nitrogen≤170kg/ha/year |

## Appendix E
## (Normative Appendix)
## List of Approved Additives, Processing Aids and other substances Used in Food Processing

E.1 food additives

Table E.1 shows the food additives allowed for organic food processing.

**Table E.1 List of Food Additives Allowed for Organic Food Processing**

| Serial number | Substance | Note | Int'l Numbering System |
|---|---|---|---|
| 1 | Arabic gum | Thickening agent, used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage. | 414 |
| 2 | Karaya gum | Stabilizing agent, for milk adjustment and water-oil form fat milky products and foods other than foods listed in A.3 of GB 2760-2011, at appropriate dosage. | 416 |
| 3 | Silicon dioxide | Anti-coagulator, used in egg powder, milk powder, cacao powder, cacao grease, sugar powder, plant powder, instant coffee, powdery soup materials and powdery essence. Referring to GB 2760-2011 for the limits. | 551 |
| 4 | Sulfur dioxide | Bleaching agents, preservative, antioxidant, for unsweetened fruit wine, the maximum limit is 50 mg/L; for sweetened fruit wine, the maximum limit is 100 mg/L; for red wine, the maximum limit is 100 mg/L, for white wine and rose wine, the maximum limit is 150 mg/L. The maximum limits are calculated in sulfur dioxide residues. | 220 |
| 5 | Glycerin | Water retention agent, emulsifier, used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage. | 422 |
| 6 | Guar gum | Thickening agent, used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage; Referring to GB 2760-2011 for the limits. when adding to light cream and older infants and young children formula food | 412 |
| 7 | Pectin | Emulsifier, stabilizer, thickener for fermented milk, cream, butter and concentrated butter, wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), dry raw noodle products and non-white sugar and syrup (such as: brown sugar, deep brown sugar and maple syrup), spice, and the products listed in GB 2760-2011 Annex A.3, at appropriate dosage. For fruit and vegetable juice (puree) refer to GB 2760-2011 for the limits | 440 |
| 8 | Potassium alginate | Thickening agent, used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate | 402 |

| Serial number | Substance | Note | Int'l Numbering System |
|---|---|---|---|
| | | dosage. | |
| 9 | Sodium alginate | Thickening agent for fermented milk, cream, butter and concentrated butter, wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), dry raw noodle products and fruit and vegetable juice (puree) spice, and the products listed in GB 2760-2011 Annex A.3, at appropriate dosage; for non-white sugar and syrup (such as: brown sugar, deep brown sugar and maple syrup) refer to GB 2760-2011 for the limits | 401 |
| 10 | Carob bean gum | Thickening agent, used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage; Referring to GB 2760-2011 for the limits. when adding to infants formula foods | 410 |
| 11 | xanthan gum | Thickening agent used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage; stabilizer and thickener for light cream, fruit and vegetable juice (puree) and spice, at appropriate dosage; for butter and concentrated butter, wet raw noodle products (such as noodles, dumpling skin and wonton skin, shaomai skin), dry raw noodle products and, non-white sugar and syrup (such as brown sugar, deep brown sugar and maple syrup) refer to GB 2760-2011 for the limits | 415 |
| 12 | Potassium metabisulphite | Bleaching agent, preservative, antioxidant, for unsweetened fruit wine, the maximum limit is 50 mg/L; for sweetened fruit wine, the maximum limit is 100 mg/L; for red wine, the maximum limit is 100 mg/L, for white wine and rose wine, the maximum limit is 150 mg/L. The maximum limits are calculated in sulfur dioxide residues. | 224 |
| 13 | (L(+)-tartaric acid，tartaric acid | Acidity regulator used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage | 334 |
| 14 | Potassium bitartrate | Leavening agent for wheat flour and its products, bakery products goods, used at appropriate dosage | 336 |
| 15 | Carrageenan | Thickening agent used in various kinds of food other than food listed in GB 2760-2011 Annex A.3, at appropriate dosage. Emulsifier and stabilizer for light cream, butter and concentrated butter, wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), fruit and vegetable juice (puree) and spice, used at appropriate dosage; for dry raw noodle products, non-white sugar and | 407 |

| Serial number | Substance | Note | Int'l Numbering System |
|---|---|---|---|
| | | syrup (such as: brown sugar, deep brown sugar and maple syrup) and infants and young children foods, referring to GB 2760-2011 for the limits | |
| 16 | Ascorbic acid | Antioxidant for concentrated fruit and vegetable juice (puree) and various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage. Flour treatment agent for wheat flour, referring to GB 2760-2011 for the limit | 300 |
| 17 | Calcium hydrogen phosphate | Leavening agent for wheat flour and its products, wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), bakery products and puffed food, referring to GB 2760-2011 for the limits | 341ii |
| 18 | Calcium sulfate | Stabilizer, coagulant, thickener and acidity regulator for bean products, used at appropriate dosage.; for bread, cakes, biscuits, cured meat products (such as: bacon, salted and smoked meat, duck, Chinese ham, sausage, etc.), meat sausage , referring to GB 2760-2011 for the limits | 516 |
| 19 | Calcium chloride | Coagulant, stabilizer and thickener, for cream and bean products, used at appropriate dosage; for canned fruits, jams, canned vegetables, decorative candy (such as: process modeling, or used in cake decorating), toppings (non-fruit material) , sweet juice, flavored syrups, referring to GB 2760-2011 for the limits | 509 |
| 20 | Potassium chloride | For salt and salt substitutes, referring to GB 2760-2011 for the limit | 508 |
| 21 | Magnesium chloride | Stabilizer and coagulant for bean products, used at appropriate dosage | 511 |
| 22 | Gelatin | Thickening agent for various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage. | |
| 23 | Citric acid | Acidity regulator, which shall be the product of carbohydrate fermentation. For infant formula, infant supplementary food and various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage | 330 |
| 24 | Potassium citrate | Acidity regulator, for infant formula, infant supplementary food and various kinds of food other than food listed in GB 2760-2011 Annex A, used at appropriate dosage | 332ii |
| 25 | Sodium citrate | Acidity regulator, for infant formula, infant supplementary food and various kinds of food other than food listed in GB 2760-2011 Annex A, used at appropriate dosage | 331iii |

| Serial number | Substance | Note | Int'l Numbering System |
|---|---|---|---|
| 26 | DL- Malic Acid | Acidity regulator shall conform to GB 2760. | |
| 27 | L-malic acid | Acidity regulator shall conform to GB 2760. | |
| 28 | Calcium hydroxide | Acidity regulator for milk powder (including sugar added milk powder), cream powder (including its modulation products) and infant formula foods production, used at appropriate dosage | 526 |
| 29 | Agar | Thickening agent for various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage. | 406 |
| 30 | Lactic acid | Acidity regulator, non-GMO product, for infant formula foods and various kinds of food other than food listed in GB 2760-2011 Annex A3, used at appropriate dosage | 270 |
| 31 | Sodium lactate | Water retention agent, acidity regulator, antioxidant, leavening agent, thickener and stabilizer, for various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage; used for wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), referring to GB 2760-2011 for the limit | 325 |
| 32 | Calcium carbonate | Leavening agent and flour treatment agent for various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage | 170i |
| 33 | Potassium carbonate | Acidity regulator, for infants, young children and various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage; used for wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), referring to GB 2760-2011 for the limit | 501i |
| 34 | Sodium carbonate | Aacidity regulator for wet raw noodle products (such as: noodles, dumpling skin and wonton skin, shaomai skin), dry raw flour products and various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage | 550i |
| 35 | Ammonium hydrogen carbonate | Leavening agent for various kinds of food other than food listed in GB 2760-2011 Annex A.3 used at appropriate dosage | 503ii |
| 36 | Potassium nitrate | Color fixative and preservative for meat, the maximum usage is 80mg/kg and the maximum residue is 30mg/kg (count in the residues of sodium nitrite ) | 252 |
| 37 | Sodium nitrite | Color fixative and preservative for meat, the maximum usage is 80mg/kg and the maximum residue is 30mg/kg (count in the residues of sodium nitrite ) | 250 |

| Serial number | Substance | Note | Int'l Numbering System |
|---|---|---|---|
| 38 | Carmine (annatto extract) | Colorant shall conform to GB 2760. | 160b |
| 39 | Sulphur | Only used for konjac powder fumigation, the maximum dosage is 900mg/kg (based on sulfur dioxide residue). | - |
| 40 | Phospholipid | Antioxidants and emulsifiers shall conform to GB 2760. | 322 |
| 41 | Gellan gum | Thickener shall conform to GB 2760. | 418 |
| 42 | Momordica grosvenori glycosides （ lo-han-kuo extract） | Sweeteners shall conform to GB 2760. | - |
| 43 | Sodium bicarbonate | The leavening agent, acidity regulator and stabilizer shall conform to GB2760. | 500ii |

**E.2 Processing aids**

Table E.2 shows the processing aids allowed for organic food processing.

**Table E.2 List of processing aids allowed for organic food processing**

| No. | Name | Conditions | INS |
|---|---|---|---|
| 1 | Nitrogen | Used in food preservation, non-petroleum sources only | 941 |
| 2 | Carbon dioxide | Preservatives, processing aids, non-petroleum products. For carbonated beverages, and other fermented wine added with gas | 290 |
| 3 | Kaolin | Clarifying agent and filter aid, for wine, fruit wine, rice wine, and tune liquor preparation and fermentation process | 559 |
| 4 | Immobilized tannin | Clarifying agent for the processing of the tune liquor and the fermentation process | |
| 5 | Silica gel | Clarifying agent for beer, wine, fruit wine, tune liquor and rice wine | |
| 6 | Diatomaceous earth | Filter aid | |
| 7 | Activated carbon | Processing aid | |
| 8 | Sulfuric acid | Flocculant, for the processing of beer | |
| 9 | Calcium chloride | Processing aids, used in bean products processing | 509 |
| 10 | Bentonite | Adsorbent, filter aid and clarifying agent, for the processing and fermentation of wine, fruit wine, | |

| | | | |
|---|---|---|---|
| | | rice wine, and tune liquor | |
| 11 | Calcium hydroxide | Used as the corn flour additives and sugar processing aid | 526 |
| 12 | Sodium hydroxide | Acidity regulator and processing aid | 524 |
| 13 | Edible tannin | Filter aid, clarifying agent and bleaching agent for rice wine, beer, wine and tune liquor process and oil bleaching process | 181 |
| 14 | Calcium carbonate | Processing aids | 170i |
| 15 | Potassium carbonate | For grape drying | 501i |
| 16 | Magnesium carbonate | Processing aid for flour processing | 504i |
| 17 | Sodium carbonate | For sugar production | 500i |
| 18 | Cellulose | For the production of white gelatin | |
| 19 | Hydrochloric acid | For the production of white gelatin | 507 |
| 20 | Ethanol | Raw material shall come from organic origins | |
| 21 | Pearl rock | Filter aid, for the processing and fermentation process of beer, wine, fruit wine and tune liquor | |
| 22 | Tale | Mold release agents, used in the processing of candy | 553iii |
| 23 | Gelatin | Clarifying agent shall conform to GB 2760. | - |
| 24 | Citric acid | Should comply with the provisions of GB 2760. | 330 |
| 25 | Phospholipid | Should comply with the provisions of GB 2760. | 322 |
| 26 | Sodium bicarbonate | Should comply with the provisions of GB 2760. | 500ii |
| 27 | Carrageenan | Clarifying agent shall conform to GB 2760. | 407 |

**E.3 detergents and disinfectants**

Table E.3 shows the detergents and disinfectants allowed for organic food processing.

**Table E.3 The detergents and disinfectants Allowed for Organic Food Processing**

| Name | Conditions of use |
|---|---|
| Acetic acid (non-synthetic) | Equipment cleaning |
| Vinegar | Equipment cleaning |
| Hydrochloric acid | Equipment cleaning |
| Nitric acid | Equipment cleaning |
| Phosphoric acid | Equipment cleaning |
| Ethanol | Disinfection |
| Isopropyl alcohol | Disinfection |
| Hydrogen peroxide | Food grade hydrogen peroxide only, equipment |

| | |
|---|---|
| | cleaner |
| Sodium carbonate, sodium bicarbonate | Equipment disinfection |
| Potassium carbonate, potassium bicarbonate | Equipment disinfection |
| Bleach | Comprises calcium hypochlorite, chlorine dioxide or sodium hypochlorite, and can be used for disinfecting and cleaning food contact surfaces. |
| peroxyacetic acid | Equipment disinfection |
| Ozone | Equipment disinfection |
| Potassium hydroxide | Equipment disinfection |
| Sodium hydroxide | Equipment disinfection |
| Citric acid | Equipment cleaning |
| Soap | Only biodegradable.Allow for cleaning of equipment. |
| Potassium permanganate | Equipment disinfection |

**E.4 condiments**

Condiments allowed in organic food processing include:

a) Essential oil: natural perfume extracted by mechanical and physical methods with oil, water, ethanol and carbon dioxide as solvents;

b) Natural condiments: Refer to Appendix C Guidelines for Evaluation of Organic Additives and Processing Aids for evaluation.

**E.5 microbial products and enzyme preparations**

Microbial products and enzyme preparations allowed to be used in organic food processing include:

a) Natural microorganisms and their products: except genetically engineered organisms and their products;

b) Starter: bleaching agent and organic solvent are not used in the production process;

c) Enzyme preparation: except genetically engineered organisms and their products.

**E.6 other ingredients**

Other ingredients allowed in organic food processing include:

a) Drinking water;

b) Edible salt;

c) Minerals (including trace elements), vitamins and amino acids. The use conditions shall meet at least one of the following conditions:

1) Shall be used as stipulated by law;

2) Use only when there is conclusive evidence to prove a serious shortage in food;

3) No substitute meeting this standard can be obtained, and if these ingredients are not used, the product will not be produced or guaranteed normally save, or its quality cannot reach a certain standard.

## Appendix F

(Normative appendix)

## Additives Allowed for Organic Feed Processing

Table F.1 shows the allowable feed additives in organic feed processing.

**Table F.1 list of the allowable feed additives in organic feed processing**

| No. | Name | Note | INS |
|---|---|---|---|
| 1 | Iron | Ferrous sulfate, ferrous carbonate, trioxide | |
| 2 | Iodine | Calcium iodate, potassium iodide, sodium iodide | |
| 3 | Cobalt | Sulfate, cobalt chloride, cobalt | |
| 4 | Copper | Copper sulfate pent hydrate, copper oxide (for ruminants) | |
| 5 | Manganese | Manganese carbonate, manganese oxide, manganese sulphate, manganese chloride | |
| 6 | Zinc | Zinc carbonate, zinc oxide, zinc sulfate | |
| 7 | Molybdenum | Sodium molybdate | |
| 8 | Selenium | Sodium selenite | |
| 9 | Sodium | Sodium chloride, sodium sulfate | |
| 10 | Calcium | Calcium carbonate (rock powder, shell) | |
| 11 | Phosphorous | Calcium lactate, Dicalcium phosphate, calcium dihydrogen phosphate, tricalcium phosphate, | |
| 12 | Magnesium | Magnesium oxide, magnesium chloride, magnesium sulfate | |
| 13 | Sulfur | Sodium sulfate | |
| 14 | Potassium | Potassium chloride, potassium carbonate, potassium bicarbonate | |
| 15 | Vitamins | Vitamins derived from natural feed ingredients. When feeding monogastric animals, natural identical synthetic vitamins are allowed to use. If natural source of vitamins can't be obtained for ruminants, natural identical synthetic vitamins are allowed to use | |
| 16 | Microorganism | *Bacillus licheniformis, Bacillus subtilis, Bifidobacterium bifidum, Enterococcus faecalis, Enterococcus feces, lactate Enterococcus, Lactobacillus acidophilus, Lactobacillus casei, Lactococcus bacteria, Lactobacillus plantarum, Pediococcus acidilactici pentose piece The cocci utilis yeast, Saccharomyces cerevisiae, R. palustris, Bulgaria Lactobacillus* (only for pigs, chickens and silage) | |
| 17 | Enzyme | Feed additives for silage | |
| 18 | Sorbic acid | Preservative | 200 |
| 19 | Formic acid | Preservative for silage, only allowed to use when full fermentation cannot be achieved due to the weather condition | 236 |
| 20 | Acetic acid | Preservative for silage, only allowed to use when full fermentation cannot be achieved due to the weather condition | 260 |
| 21 | Lactic acid | Preservative for silage, only allowed to use when full | 270 |

| No. | Name | Note | INS |
|---|---|---|---|
| | | fermentation cannot be achieved due to the weather condition | |
| 22 | Propionic acid | Preservative for silage, only allowed to use when full fermentation cannot be achieved due to the weather condition | 280 |
| 23 | Citric acid | Preservative | 330 |
| 24 | Calcium stearate | Natural sources, binder agent and anti-caking agent | 470 |
| 25 | Silicon dioxide | Binders and anti-caking agent | 551b |
| 26 | Methionine | Essential amino acids for poultry | |

## Appendix G

(Informative Appendix)

## Guidelines for Evaluating Organic Processing Additives and Processing Aids

### G.1 scope of application

The permitted additives and processing aids listed in Appendix E and Appendix F cannot cover all substances conforming to the principle of organic processing. When a substance is not listed in Appendix E and Appendix F, the substance is evaluated according to the guidelines to determine whether it is suitable for use in organic processing.

### G.2 principles

Each additive and processing aid can only be used in organic processing when necessary, and follow the following principles:

a) abide by the organic authenticity of products;

b) Without these additives and processing aids, the product cannot be produced and preserved.

### G.3 Conditions for Approval of Additives and Processing Aids

The approval of additives and processing aids shall meet the following conditions:

a) there are no other acceptable processes that can be used to process or preserve organic products;

b) the use of additives or processing aids can minimize physical or mechanical damage to food caused by other processes.

Damage;

c) other methods, such as shortening transportation time or improving storage facilities, still cannot effectively ensure food hygiene;

d) the quality and quantity of the natural source material are not sufficient to replace the additive or processing aid;

e) additives or processing aids do not endanger the organic integrity of the product;

f) the use of additives or processing aids will not give consumers an impression that the quality of the final product is better than that of the raw materials.

The quantity is better, thus confusing consumers.This mainly involves but is not limited to pigments and spices;

g) the use of additives and processing aids should not be detrimental to the overall quality of the product.

### G.4 Priorities for Using Additives and Processing Aids

#### G.4.1 Use the following scheme to replace additives or processing aids:

a) Crops and their processed products produced according to the requirements of this standard, and these products do not need to be added with other substances, for example

For example, flour used as thickening agent or vegetable oil used as mold release agent;

b) food or raw materials of plant and animal origin, such as salt, produced only by mechanical or simple physical methods.

#### G.4.2 Use the following substances instead of additives or processing aids

a) pure food ingredients produced physically or enzymatically, such as starch, tartrate and pectin;

b) purified products of non-agricultural raw materials and microorganisms, such as enzymes such as acerola juice and yeast culture, and

Microbial preparations.

#### G.4.3 The following kinds of additives and processing aids cannot be used in organic products:

a) substances with "equivalent properties" to natural substances;
b) synthetic substances, such as acetyl cross-linked starch, which are basically judged to be unnatural or "new structure of product components";
c) additives or processing aids produced by genetic engineering methods;
d) synthetic pigments and synthetic preservatives.
Carriers and preservatives used in the preparation of additives and processing aids should also be considered.

## Appendix H
## (Normative appendix)

Indicators of Heavy Metals and Other Pollutants in Dyes Used in Organic Textiles

The content indexes of heavy metals and other pollutants in dyes used in organic textiles are shown in table H.1.

**Table H.1 Contents of Heavy Metals and Other Pollutants in Dyes Used in Organic Textiles**

| Name | Indicators mg/kg | Name | **Indicators** mg/kg | Name | Indicators mg/kg |
|---|---|---|---|---|---|
| Antimony | 50 | Arsenic | 50 | Barium | 100 |
| Lead | 100 | Cadmium | 20 | Chromium | 100 |
| Iron | 2500 | Copper | 250 | Manganese | 1000 |
| Nickel | 200 | Mercury | 4 | Selenium | 20 |
| Silver | 100 | Zinc | 1500 | Tin | 250 |

REFERENCES

[1] CAC/GL 32-1999, Guidelines for the production, processing, labelling and marketing of organically produced foods. Adopted 1999. Revisions 2001，2003，2004 and 2007. Amendments 2008 and 2009.
[2] CAN/CGSB-32.310-2006, Organic Production Systems General Principles and Management Standards
[3] CAN/CGSB -32.311-2006, Organic Production Systems Permitted Substan
[4] 7 CFR Part 205, National Organic Program
[5] Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91
[6] Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control