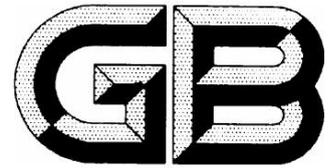


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The National Standard of the People's Republic of China

GB/T 19630.1—2011

Replacing GB/T 19630.1—2005

Organic Product Part 1: Production

Organic Products——Part 1: Production

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Foreword

GB/T 19630 “Organic Product” is divided into four parts:

- Part 1: Production
- Part 2: Processing
- Part 3: Identification and Sales
- Part 4: Management System

This Part is the first part of GB/T 19630.

This Part is prepared according to the rules set forth in GB/T 1.1-2009 “Directives for Standardization Part 1: Structure and Compilation of Standardization”.

This Part takes the place of GB/T 19630.1-2005 “Organic Product Part 1: Production”. Compared with GB/T 19630.1-2005, the main technical changes are as follows:

- “Contents” is added;
- “Introduction” is added;
- Some definitions and terms are added, including the animal life cycle (see 3.8), the plant propagating materials (see 3.10), the genetic engineering technology (transgenic technology) (see 3.12), and the irradiation (see 3.14);
- Some definitions and terminologies are deleted, including the allowed for use, the restricted for use and the prohibited for use (see 3.11, 3.12, 3.13 in the 2005 edition).
- “General Principles” is added (see 4);
- Requirements of the maximum residue limit of the prohibited substances in the certified product are increased (see 4.5.6);
- Requirements of the annual growth plant seedlings are modified (see 5.5.3);
- Requirements of facility cultivation (see 5.9.1), sprouting vegetable (see 5.9.2) are increased;
- Auxiliary materials allowed for use in the planting of edible fungi are increased (see 7.3);
- “Sorting, Cleaning and Other Post-Harvest Handling” is added (see 5.10);
- Age in days of the introduction of meat-type chicken is modified (see 8.3.1);
- “Introduction of livestock and poultry” is modified; the annual introduced quantity of pigs and sheep are increased up to no more than 20% of the total same organic female adults (see 8.3.2);
- Calculation method of the ratio among roughage forage, fresh grass, green hay and silage is modified (see 8.4.4);
- Weaning period of pigs and sheep is modified (see 8.4.5);
- Requirements of the fattening stage of beef cattle are increased (see 8.5.4);
- 9.1.4 c) is deleted, and the related content is moved to 9.1.3 b) ;
- Disinfectants allowed for use in the aquaculture are increased (see 9.4.3.3);
- Requirements of building the comb foundation by the organic beeswax are increased during the conversion of bee farms (see 10.1.2);
- “Introduction of Bees” is added (see 10.2);

- Provision of “shall breed own queen bee” is deleted (see 10.5.3 in the 2005 edition);
- Provision of “shall not harvest the immature honey” is added (see 10.8.3);
- The location of “General Principles for Packaging, Storage and Transportation” is modified (see 11 and 7 in the 2005 edition);
- Plant protection products and conditions of usage are supplemented (see Appendix A Table A.2 and Appendix B in the 2005 edition);
- The List of “detergents and disinfectants allowed for use in the planting of organic crops” is added (see Appendix A Table A.3);
- “Additives and Materials for Animal Nutrition” is added (see Appendix B Table B.1);
- “Water quality requirement of the drinking water for livestock and poultry” is deleted (see Appendix C Table C.1 in the 2005 edition);
- Detergents and disinfectants allowed for use in the animal breeding sites are supplemented, and are listed as Appendix B Table B.2 (see Appendix C Table C.2 in the 2005 edition);
- Materials allowed for use in the prevention and treatment of honeybee disease are supplemented, and are listed (see Appendix B Table B.3 and 10.4.3 in the 2005 edition);
- “Shall not use the lead paint” is added (see 10.7.6);
- “Animal house and activity space for different kinds of animals in the breeding of livestock and poultry” is added (see Appendix D);

Terms related to the certification management are deleted, including the confirmation of the conversion period, the supervision requirements of the parallel production, the evaluation and the approval of the input, the detection of the certified product.

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

This Part is presented by the Certification and Accreditation Administration of the People's Republic of China. Some entities drafted this Part: Nanjing Organic Food Development and Certification Center, Registration Department of Certification and Accreditation Administration of the People's Republic of China, China Agricultural University, Tea Research Institute of Chinese Academy of Agricultural Sciences, China Organic Food Certification Center, Hanzhou WIT Assessment Co., Ltd., Certification and Accreditation Administration of China, Nanjing Agricultural University, Beijing Continental Hengtong Certification Co., Ltd. (CHTC).

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This Part takes the place of all previous standard editions as follows:

- GB/T 19630.1-2005

Introduction

When the organic agriculture gives play to the role of production function (i.e. providing the organic products), meanwhile, it shall focus on the interaction between the people and the ecosystem and the sustainable management of the environment and the natural resources. The organic agriculture is based on the principles of health, ecology, fairness, care and love. To be specific, the basic principles of organic agriculture include:

- In the field of production, processing, circulation and consumption, maintain and promote the health of the ecosystem and the biology, including the health of soil, plants, animals, microorganisms, human and earth. The organic agriculture is especially dedicated to the production of high quality, rich nutrition food, to serve the preventive health and the welfare protection. Therefore, the organic agriculture shall avoid using fertilizers, plant protection products, veterinary drugs and food additives from the chemical synthesis as far as possible.
- Based on the living ecological system and the material energy cycle, to live with the natural environment in harmony, take examples from nature, and maintain the nature. The organic agriculture shall adopt the production mode that will adapt to the local conditions, ecology, culture and scale. Through recycling, cycle use and the efficient resource and energy management, to reduce the use of the external input, maintain and improve the environment quality, and protect national resource.
- Through the design of farming system, establish the habitat, protect the genetic biodiversity and the agricultural diversity, to maintain the ecological balance. In the segment of production, processing, circulation and consumption, shall protect and improve our common environment, including landscape, climate, habitat, biodiversity, air, soil and water.
- At every level, for all groups -- peasants, workers, processors, distributors, traders and consumers, shall deal with the mutual relation in a fair way. The organic agriculture is especially dedicated to the production of sufficient, high quality food and other products, to provide a good quality of life for everyone, and make a contribution to ensure the safety of food and eliminate poverty.
- In line with the social justice and the ecological justice, manage the natural and environmental resources, and entrust it to the future generations. The organic agriculture advocates to establish the system of production, circulation and trade with an open and equal opportunity, and put the environmental and the social costs into consideration.
- Provide the living condition which conforms to the physiological needs, the natural habits and the welfare for the animals.
- Improve efficiency, increase productivity, meanwhile, and avoid the risk of the human health and the animal welfare. Due to the limitation of understanding about the ecosystem and the agriculture, shall adopt the cautious attitude to evaluate the new technology and the existing technical method. When the organic agriculture chooses the technology, shall emphasize on the prevention and the responsibility, to ensure the organic agriculture is healthy, safe, and reasonable on the ecology. The organic agriculture shall refuse the unpredictable technology, such as the genetic engineering and the ionizing radiation, and avoid the risks to the health and ecology.

Organic Product

Part 1: Production

1 Scope

This Part in GB/T 19630 sets out the general specifications and requirements for organic production of plants, animals and microorganisms products.

This Part shall apply to the production and harvest of plants, animals and microorganisms products, and processing, packaging, storage and transport after harvesting.

2 Normative Quotations and References

For the application of this document, the following documents are indispensable. For the reference document with date, only the edition with date is applicable to this document. For the reference document without date, the latest edition (including all modification lists) is applicable to this document.

GB 3095 Ambient Air Quality Standard

GB 5084 Water Quality Standard for Farm Irrigation

GB 5749 Standards for Drinking Water Quality

GB 9137 Maximum Allowable Concentration of Atmospheric Pollutants for Protection of Crops

GB 11607 Water Quality Standard for Fisheries

GB 15618 Environmental Quality Standard for Soils

GB 18596 Pollution Discharge Standard for Livestock and Poultry Industry

GB/T 19630.2-2X×× Organic Product Part 2: Processing

GB/T 19630.4 Organic Product Part 4: Management System

3. Terms and Definitions

The following terms and definitions are applicable to this Part.

3.1

Organic Agriculture

According to the specific principles of the agricultural production, during the production, shall not adopt the organisms and their products from the genetic engineering, shall not use pesticides, fertilizers, growth regulators, feed additives from the chemical synthesis, shall follow the natural law and the ecology principle, shall harmonize the balance of the planting industry and the breeding industry, shall adopt a kind of agricultural production mode with a series of sustainable agricultural techniques to maintain the steady system of the agricultural production.

3.2

Organic Product

The products for the human consumption and the animals edible, which are produced, processed and sold according to this standard.

3.3

Conventional

The production system and its products are not implemented or managed according to this standard.

3.4

Conversion Period

The period which is from starting management to obtaining the organic certification of the production units and the products according to this standard.

3.5

Parallel Production

The situation that in the same production unit, produce the organic products, the organic conversion products or the conventional products, which are same or difficult to distinguish at the same time.

3.6

Buffer Zone

The transition region which is set up between the organic land parcel and the conventional land parcel on purpose, and may be clearly defined to limit or block drifting of the prohibited substances from the adjacent land parcel.

3.7

Input

All substances or materials, which are adopted during the organic production process.

3.8

Animal Life Cycle

The period which is from the birth of animals to the organic products sales.

3.9

Homeopathic Treatment

A kind of disease treatment system, after some substance series are diluted, to treat the disease, while if this kind of substance is not diluted, when it is used for the healthy animals, it will cause the symptoms and signs similar to the disease to be cured.

3.10

Plant Propagating Materials

The plant or the plant tissue, which is apart from the annual growth plant seedlings which are used in the plant production or propagating, including but not limited to rhizomes, buds, leaves, cuttage seedling, roots and tubers.

3.11

Biodiversity

The diversity of the life forms and the ecosystem-type on the earth, including the genetic diversity, the diversity of species and the diversity of ecological system.

3.12

Genetic Engineering (Genetic Modification)

It means the technology which is apart from the natural mating and the natural restructuring to change the genetic material, including but not limited to recombinant DNA, cell fusion, microinjection and macroinjection, encapsulation, gene elimination and doubling.

3.13

Genetically Engineered Organism (Genetically Modified Organism)

Through the genetic engineering technology/transgenic technology, the genes of plants, animals and

microbes are changed. It excludes the living organism which is obtained from the technology of conjugation, transduction and hybrid.

3.14

Irradiation (ionizing radiation)

The radiation with the high-energy radionuclide may change the molecular structure of food, to control microbes, the germs, parasites and pests in the food, and to preserve food or restrain the physiological processes such as sprouting or growing.

4 General Principles

4.1 Scope of Production Unit

The boundary of the organic production unit shall be clear; the ownership and management rights shall be definite; and shall establish the management system of the organic production according to the requirements of GB/T 19630.4.

4.2 Conversion Period

It is needed to go through the conversion from the conventional production to the organic production, only the plant products which are planted or harvested after the conversion period or the animal products after the conversion period may be sold as the organic products. The producer shall completely conform to the requirements of the organic production during the conversion period.

4.3 Genetically Engineered Organisms/Genetically Modified Organisms

4.3.1 Shall not input or use the genetically engineered organisms/genetically modified organisms and its derivatives in the organic production system or in the organic products, including the following agricultural inputs: plants, animals, microorganisms, seed, pollen, sperm and egg, other propagating materials and fertilizers, soil improvement materials, plant protection products, plant growth regulator, fodder, animal growth regulators, veterinary drugs, fishery drugs, etc.

4.3.2 There are organic and non-organic production units at the same time, the conventional production part shall not input or use the genetically engineered organism/transgenic organism.

4.4 Irradiation

Shall not use the irradiation technology during the organic production.

4.5 Input

4.5.1 The producer shall choose and implement the cultivation and/or the cultivation management measures, to maintain or improve the physical and chemical and biological properties of the soil, reduce the soil erosion, and protect the health of the plant and the farmed animals.

4.5.2 If the cultivation and/or the cultivation management measures are not enough to maintain the soil fertility and ensure the health of the plant and the farmed animals, when it is needed to use the input which is apart from the organic production system, may use the input listed on Appendix A and Appendix B, but shall use it in accordance with the prescribed conditions. If the materials (which are used for the improvement of soil fertility, the plant protection and the animal cultivation) listed on Appendix A and Appendix B are not enough to meet the requirements, it shall refer to the evaluation criterion described in Appendix C, use other input which is apart from Appendix A and Appendix B in the organic agriculture to make an evaluation.

4.5.3 The active components of the compound preparation which are used as the plant protection products shall be the materials listed on Appendix A Table A.2, shall not use the materials with carcinogenicity, teratogenicity, mutagenicity and neurotoxicity as the additives.

4.5.4 Shall not use the plant protection products from the chemical synthesis.

4.5.5 Shall not use the fertilizer from the chemical synthesis and the urban sewage sludge.

4.5.6 The prohibited substances which are forbidden during the organic production shall not be detectable in the certified products.

5 Plant Production

5.1 Conversion Period

5.1.1 The conversion period for the annual growth plants shall be at least 24 months before seeding; the conversion period for the meadow and the perennial forage crops shall be at least 24 months before harvesting of the organic feed; the conversion period for other perennial plants which are apart from the forage crops shall be at least 36 months before harvesting. During the conversion period, shall manage it according to the requirements of this standard.

5.1.2 The land parcel which is newly cleared, or is uncultivated over 36 months or has the sufficient evidence to prove that it does not use the standard prohibited substances over 36 months shall also go through the conversion period for 12 months.

5.1.3 May extend the conversion period for the land parcel which is contaminated by the substances prohibited by this Standard.

5.1.4 As for the land parcel which has passed the conversion period or is during the conversion period, if use the substances which are prohibited during the organic production, shall restart the conversion. If the prohibited substances are forced to be used on the land parcel by the local government agencies to deal with some diseases or insect pests, the conversion period stipulated in 5.1.1 may be shortened, but shall pay close attention to the degradation situation of the prohibited substances in the application of products, to ensure the residues in the soil or the perennial crops to reach the non-significant level before the end of the conversion period. The harvested products shall not be sold as the organic products or the organic conversion products.

5.1.5 As for the wild collection, the planting of edible fungi (except the soil culture and the casing soil culture), and the sprouting vegetable production may be exempted from the conversion period.

5.2 Parallel Production

5.2.1 The organic and non-organic plants which are easy to distinguish may be produced in the same production unit at the same time, but the organic and non-organic productions in this unit shall be distinguishable completely, and shall take appropriate measures to avoid mixing with the non-organic products and avoid being contaminated by the prohibited substances.

5.2.2 In the same production unit, the annual growth plant shall not have the parallel production.

5.2.3 In the same production unit, the perennial plant shall not have the parallel production, unless the following conditions at the same time are satisfied:

- a) The producer shall make the organic conversion plan, and shall promise to implement the conversion on the relevant non-organic production area which is in the same unit in the shortest possible period, but this period shall be not more than 5 years.
- b) Shall take appropriate measures to ensure the harvested products from the organic and the non-organic production areas to be strictly separated.

5.3 Environmental Requirements of Origin

It shall implement the organic production under the appropriate environmental conditions. The organic production base shall be away from the urban, the industrial and mining areas, the traffic trunk, the industrial pollution sources, and the life garbage dump, etc.

The environmental quality of origin shall meet the following requirements:

- a) the soil environment quality shall meet the secondary standard in GB 15618;
- b) the quality of farmland irrigation water shall meet the regulations in GB 5084;
- c) the environmental air quality shall meet the secondary standard in GB 3095 and the regulations in GB 9137.

5.4 Buffer Zone

Shall analyze risks that the organic production area will be contaminated by the adjacent conventional production area. In the presence of risk, shall establish the effective buffer zone or the physical barrier between the organic production area and the conventional production area, to prevent the conventional production area from being contaminated. The plants which are planted on the buffer zone cannot be certified as the organic products.

5.5 Seeds and Plant Propagating Materials

5.5.1 Shall choose the plant species and varieties that adapt to the local soil and climate conditions, and are resistant to insect pests. On the choice of varieties, shall give full consideration to protect the genetic diversity of plants.

5.5.2 Shall choose the seeds and the plant propagating materials. When it is impossible to obtain the organic seeds or the plant propagating materials from the market, may choose the conventional seeds or the plant propagating materials which are not processed by the prohibited substances, and shall establish and implement the plan to obtain the organic seeds or the plant propagating materials.

5.5.3 Shall adopt the organic production method to cultivate the seedlings of the annual growth plants.

5.5.4 Shall not use the seeds or the plant propagating materials which are processed by the prohibited substances and methods.

5.6 Cultivation

5.6.1 As for the annual growth plants, shall adopt the crop rotation with more than three kinds of crops; as for the region that may produce the rice with more than one seasons, shall adopt the crop rotation with more than two kinds of crops; as for the Northeast China Region, it is not needed to adopt the crop rotation in the winter fallow. As for the plants that adopt the crop rotation, they include but not limited to planting the leguminous plants, the green manure and the cover plant etc.

5.6.2 It is appropriate to adopt the intercropping to increase the biodiversity, the soil fertility and the disease resistance of the organic plants.

5.6.3 Shall establish the reasonable irrigation methods (such as the drip irrigation, the sprinkler irrigation, the infiltrating irrigation etc) according to the local situation.

5.7 Soil and Fertilize Management

5.7.1 Shall maintain and improve the soil fertility through the proper farming and cultivation measures, including:

- a) Through recovery and regeneration and supplement of the soil organic matter and nutrients, to supplement the soil organic matter and the soil nutrients that are taken away from the soil due to the plants harvest.
- b) Adopt the measures such as planting the leguminous plants, no tillage or fallowness to recover the soil fertility.

5.7.2 If the measures described in 5.7.1 cannot meet the requirements of plant growth, may use the organic fertilizer to maintain and improve the soil fertilizer, the nutrient balance and the biological activity of soil, to avoid excessive use of the organic fertilizer and environmental pollution. Shall have priority to use the organic fertilizer which is produced by this unit or other organic production unit. Where the commodity organic fertilizer is outsourced, it may be used only after the assessment by the certification authority according to Appendix C.

5.7.3 Shall not use the night soil on the leafy vegetables, the tubers and the root plants; if it is needed to use on the other plants, shall make it fully decomposed with the bio-safety disposal, and shall not be in contact with the plant edible part.

5.7.4 May use the natural mineral fertilizer with the small solubility, but shall not use this kind of fertilizer as a substitute for the nutrient cycle in the system. The natural mineral fertilizer may only be used as the controlled availability fertilizer, and shall not adopt the chemical treatment to improve its solubility.

Shall not use the mineral nitrogen.

5.7.5 May use the biological fertilizer; in order to make the compost fully decomposed, may add the microorganisms come from the nature during the composting, but shall not use the genetically modified organisms and its products.

5.7.6 As for the soil fertilizer and the improving materials allowed for use in the organic plant production, please see Appendix A Table A.1.

5.8 Prevention and Treatment of Disease Pest and Weed

5.8.1 The basic principles of prevention and treatment of disease pest and weed shall start from the agricultural ecosystem, with the integrated use of various prevention measures, create the environmental conditions which are adverse to the breeding of disease pest and weed, and are beneficial to the breeding of various natural enemies, maintain the balance of agricultural ecosystem and the biodiversity, and reduce the loss caused by various disease pest and weed. Shall have priority to adopt the agricultural practice, through a series of measures, such as selecting disease-resistant & insect-resistant varieties, seed treatment without the chemical agent, cultivating strong seedling, strengthening the management of cultivation, intertillage weeding, ploughing with sunning the ploughed soil, cleaning the field, rotation of crops, intercropping and interplanting, to play the role of prevention and treatment of disease pest and weed. 5.8.1 Shall also utilize the light, color to trap and kill the pest, use the machine to capture the pest, mechanical or manual weeding as far as possible, to prevent and treat the disease pest and the weed.

5.8.2 When the mentioned method cannot effectively control the disease pest and weed, may use the plant protection products listed on Appendix A Table A.2.

5.9 Other Plant Production

5.9.1 Facility Cultivation

5.9.1.1 Shall use the soil or the substrate during the plant production, shall not produce through the nutrient solution culture. Shall not use the prohibited substances to treat the building materials and the cultivation container of the facility agriculture. The conversion period shall meet the requirements in 5.1.

5.9.1.2 Shall use the improvement of soil fertility and the improving materials allowed for use in the organic plant production as the base material, which are listed on Appendix A Table A.1, and shall not contain prohibited substances.

When use the animal manure as the source of nutrients, shall make the compost. May use the substances listed on the Appendix A Table A.1 as the auxiliary fertilizer source.

May use the method of heating air or water to obtain the auxiliary heat source, and may also use the auxiliary light source.

5.9.1.3 May adopt the following measures and methods:

- a) Use the improvement of soil fertility and the improving materials listed on Appendix A Table A.1 as the auxiliary fertilizer source. When use the animal manure as the source of nutrients, shall make the compost.
- b) Use the flame, the fermentation, the composting and use the compressed gas to improve the carbon dioxide concentration;
- c) Use the steam and the detergents and the disinfectants listed on Appendix A Table A.3 to clean and disinfect the cultivation container;
- d) By controlling the temperature and light or the use of natural plant growth regulator, to regulate the growth and development.

5.9.1.4 Shall adopt the soil regeneration and cycle use measure. In the production process, the following methods may be used instead of the crop rotation:

- a) Grafting technique with the disease-resistant plants;
- b) Ploughing with sunning the ploughed soil in summer and winter;

- c) Use the biodegradable mulch (such as the crop straw and the cured hay) to recover the soil;
- d) Some or all replace the greenhouse soil, but the replaced soil shall be used in other plant production activities;

5.9.1.5 Where possible, shall use the recoverable or recyclable cultivation container.

5.9.2 Sprouting Vegetable Production

5.9.2.1 Shall use the seeds of organic production to produce the sprouting vegetable.

5.9.2.2 The production water quality shall comply with GB 5749.

5.9.2.3 Shall take the precautionary measures to prevent the plant diseases and insect pests, and may use the steam and the detergents and the disinfectants listed on Appendix A Table A.3 to clean and disinfect the cultivation container and the production site.

5.10 Sorting, Cleaning and Other Post-Harvest Handling

5.10.1 After the plants harvest, the simple processing process (such as cleaning, sorting, threshing, hulling, cutting, keep-freshing and drying) shall adopt the physical and biological methods, and shall not use chemical substances which are apart from the items listed on GB/T 19630.2-2XXX Appendix A to deal with.

5.10.2 The equipments which are used for processing the non-organic plants shall be cleaned up before processing the organic plants. As for the equipments which are not easy to clean up, shall adopt the flushing measures.

5.10.3 The products and the equipments shall guarantee the clean, shall not cause pollution to the products.

5.10.4 When use the detergents and the disinfectants to clean the equipment and facilities, shall avoid pollution to the products.

5.10.5 After harvest, as for the pest control operation during the processing, shall comply with the requirements in 4.2.3 of GB/T 19630.2-2XXX.

5.11 Pollution Control

5.11.1 Shall take the measures to prevent the water penetration or overflowing into the organic land parcel from the conventional farmland.

5.11.2 Shall avoid using the fertilizer of the external source to cause pollution to the products by the prohibited substances.

5.11.3 As for the equipments of the conventional agricultural system, shall adopt the cleaning measures before being used for the organic production, to avoid mixing with the conventional products and pollution by the prohibited substances.

5.11.4 When use the protective building covering, plastic film and insect proof net, shall not use the polyvinyl chloride products. It is suitable to choose the products of polyethylene, polypropylene, or Iolycarbonate, and shall clear them up from the soil after using; and shall not burn them.

5.12 Soil and Water Conservation and Biodiversity Protection

5.12.1 Shall take the measures to prevent the soil erosion, soil desertification and salinization. Shall give the full consideration to the sustainable utilization of the soil and water resources.

5.12.2 Shall take the measures to protect the natural enemies and its habitats.

5.12.3 Shall make full use of the crop straw and shall not burn them, unless due to the need of control of plant diseases and insect pests.

6 Collection of Wild Plants

6.1 The collection area boundary of the wild plants shall be clear, and shall be in the stable and sustainable conditions.

6.2 The collection area shall not polluted by any prohibited substance for 36 months before collecting.

6.3 The collection area of the wild plants shall maintain the effective buffer zone.

6.4 The collecting activities shall not cause the adverse effect to the environment or pose a threat to the plant and animal species; the collecting amount shall not exceed the amount of the ecosystem sustainable production.

6.5 Shall establish and submit the management solution of the sustainable production about the collection area of the organic wild plants.

6.6 The processing after collection of the wild plants shall comply with the requirements in Clause 5.10.

7 Cultivation of Edible Fungi

7.1 The cultivating area of edible fungi which is nearby the conventional farmland shall set up a buffer zone or physical barrier, to avoid the influence of the prohibited substances. The quality of source water shall comply with the requirements in GB 5749.

7.2 Shall adopt the organic species. If it is unable to obtain the species of the organic sources; may use the non-organic species which are not polluted by the prohibited substances.

7.3 Shall use the base material of the natural materials or the organic productions, and may add the following auxiliary materials:

- a) The farmyard manure from the organic production and the poultry excrement; when the farmyard manure from the organic production and the poultry excrement are unavailable, may use the improvement of soil fertility listed on Appendix A Table A.1 and the substances specified in the improving substances, but shall not exceed 25% of the gross dry weight of the base materials, and shall not contain the night soil and the poultry excrement of the intensive farming.
- b) The products of the agricultural sources shall be the products which are produced by the organic way, except the products involved with the items in 7.3 a);
- c) The peat without the chemical treatment;
- d) The wood without the chemical treatment after felling;
- e) The improvement of soil fertility listed on Appendix A Table A.1 and the substances specified in the improving substances in this part.

7.4 The conversion period of the edible fungi with the soil culture or the casing soil cultivation and the conversion period of the annual growth plant shall comply with the requirements in Clause 5.1.

7.5 The coating used on the timber and the inoculating position shall be the products with the edible grade, and shall not use the paint, latex paint and oil paint from the petroleum refining.

7.6 Shall adopt the preventive measures, maintain clean sanitation, with the appropriate air exchange, and remove the infected bacteria cluster.

7.7 In the non-cultivating period, may use steam, detergents and disinfectants listed in Appendix A Table A.3 to clean and disinfect the cultivating site.

7.8 The processing after collection of the edible fungi shall comply with the requirements in Clause 5.10.

8 Breeding of Livestock and Poultry

8.1 Conversion Period

8.1.1 The conversion period of the feed production base shall comply with the requirements in Clause 5.1; if the meadow and the pasture is only for the use of the non-herbivores, the conversion period may be shortened to 12 months. If there is sufficient evidence to prove that the prohibited substances have not been used for over 12 months, the conversion period may be shortened to 6 months.

8.1.2 The livestock and poultry shall pass the following conversion period:

- a) beef cattle, equips animal and camel, 12 months;
- b) mutton sheep and pig, 6 months;

- c) milk cattle, 6 months;
- d) meat poultry, 10 weeks;
- e) egg poultry, 6 weeks;
- f) other kinds of conversion period shall exceed 3/4 of its breeding period.

8.2 Parallel Production

If one livestock farm breeds the same variety or the livestock breeds which are difficult to distinguish in the organic and non-organic way, shall meet the following conditions, and the livestock and poultry or its products may only be sold as the organic products:

- a) The housing and fencing, the activity space and the pasture of the organic livestock and poultry and the non-organic livestock and poultry shall be separated completely, or the organic livestock and poultry and the non-organic livestock and poultry are the breeds which are easy to distinguish;
- b) The warehouse or the area for storing feed shall be separated and be set up with the obvious marks;
- c) The organic livestock and poultry shall not be in contact with the storage area of the non-organic feed and the prohibited substances.

8.3 Input of Livestock and Poultry

8.3.1 Shall input the organic livestock and poultry. When it is unable to obtain the organic livestock and poultry, may input the conventional livestock and poultry, but shall meet the following conditions:

- a) beef cattle, equus animal and camel, not exceed 6 months and has been weaning;
- b) pig and sheep, not exceed 6 weeks and weaning;
- c) dairy cattle, not exceed 4 weeks, has received the early breast feeding and is the calf with the whole milk feeding;
- d) meat chicken, not exceed 2 days (other poultry may be extended to 2 weeks);
- e) egg chicken, not exceed 18 weeks.

8.3.2 May input the conventional female animal; the input quantity of cattle, horse and camel shall not exceed 10% of the total amount of the same adult organic female animal; the input quantity of pig and sheep shall not exceed 20% of the total amount of the same adult organic female animal.

As for the following situation, the proportion may be increased to 40% with the permission of the certification body:

- a) Unforeseen severe natural disasters or man-made accidents;
- b) The scale of the livestock farm is increased greatly;
- c) The new livestock breeds are developed by the livestock farm. All input conventional livestock and poultry shall pass the relevant conversion period.

8.3.3 May input the conventional male animal, and shall feed them according to the organic way immediately after input.

8.4 Fodder

8.4.1 Shall feed the livestock and poultry with the organic fodder. In the fodder, there shall be at least 50% amount come from the fodder planting base of the local livestock farm or the local organic farm with the cooperative relationship. The fodder production and use shall meet the requirements of Chapter 5 “Plant Production” and Appendix B Table B.1.

8.4.2 During the first 12 months of implementing the organic management, the fodder which is produced by the fodder planting base of the livestock farm according to this standard may be fed to the livestock and poultry of the livestock farm as the organic feed, but shall not be sold as the organic fodder.

The effective buffer zone or the physical barrier shall be set up on the fodder production base, the pasture and the grassland and the adjacent conventional production areas.

8.4.3 When it is short of the organic fodder, may feed the conventional fodder. But the consumption

quantity of the conventional fodder for each animal in the proportion of the annual consumption shall not exceed the following percentage:

- a) Herbivorous animal (calculated by the dry matter) 10%;
- b) Non-herbivorous animal (calculated by the dry matter) 15%.

The daily ration for the livestock and poultry in the proportion of the conventional feed shall not exceed 25% (calculated by the dry matter) of total amount .

When there is an unforeseen severe natural disasters or man-induced accidents, may feed the conventional fodder over the above proportion during a certain time period.

When feed with the conventional fodder, shall obtain the permission of the certification authority in advance.

8.4.4 Shall guarantee that herbivorous animal may obtain the coarse fodder to satisfy its basic nutrient requirement every day. In the daily ration, the proportion of the roughage forage, the grass, the green hay or silage shall not be less than 60% (calculated by the dry matter). As for the milk cattle in the first 3 months of the lactation period, this proportion may be reduced to 50% (calculated by the dry matter). In the daily ration of the omnivorous animal and the poultry, shall mix with the roughage forage, grass, green hay or silage.

8.4.5 The young animal in the beestings period shall be fed by the female animal with the enough beestings. May use the same kind of organic milk to feed the young animal in the beestings period. Where the organic milk is unavailable, may use the same kind of non-organic milk.

Shall not be early weaning, or feed the young animal with the milk replacer. In case of an emergency, may use the milk replacer to supplement the feed, but shall not contain any antibiotic, chemical additives (except the substances allowed for use listed in Appendix B Table B.1) or the animal slaughter products. The suckling period at least needs:

- a) cattle, equus animal and camel, 3 months;
- b) goat and sheep, 45 days;
- c) pig, 40 days.

8.4.6 When produce the fodder, fodder ingredients and fodder additives, shall not use the genetically modified (genetic engineering) organisms or its products.

8.4.7 Shall not use the following methods and materials:

- a) Feed the ruminant with the animal and its products, or feed the livestock and poultry with the same kind of animal and its products;
- b) Any form of unprocessed or processed animal waste;
- c) Fodder which is from the chemical solvent extraction or is mixed with the chemosynthetic substance, but except the materials which are extracted by water, ethanol, animal and plant oil, vinegar, carbon dioxide, nitrogen, or carboxylic acid.

8.4.8 The used fodder additives shall belong to the fodder additive varieties directory issued by the competent agriculture administrative authority, shall be the products allowed for sales, and shall comply with the relevant requirements in this Part.

8.4.9 May use the natural minerals such as magnesium oxide, green sand; when it is unable to satisfy the nutrient requirement of the livestock and poultry, may use the minerals and trace elements listed in Appendix B Table B.1.

8.4.10 The added vitamin shall come from germinated grain, fish liver oil, brewers yeast or other natural substances; when it is unable to satisfy the nutrient requirement of the livestock and poultry, may use the synthetic vitamins.

8.4.11 Shall not use the following materials (except the materials allowed for use listed in Appendix B Table B.1);

- a) chemosynthetic growth promoter (including antibiotic, antiparasitic drug and hormone for promoting the growth);

- b) chemosynthetic seasoning and spices;
- c) antiseptic substance (except the processing agent);
- d) chemosynthetic coloring agent;
- e) non-protein nitrogen (Such as urea);
- f) amino acids from chemical purification;
- g) antioxidant;
- h) adhesion agent.

8.5 Feeding Condition

8.5.1 The feeding condition of the livestock and poultry (housing and fencing etc) shall meet the following conditions, to adapt to the physiological and behavioral needs of the livestock and poultry:

- a) The activity space of the livestock and poultry shall meet the requirements in Appendix D and have the enough sleep time; the activity space of the livestock and poultry shall has some part of shield; the waterfowl shall be able to have the activities in the streams, the ponds, the lakes or the ponds;
- b) Improve the air flow, the natural light shall be enough, but shall avoid the excessive sun exposure;
- c) Maintain appropriate temperature and humidity, to avoid the wind, the rain, the snow etc;
- d) If the padding may be eaten by the farmed animals, then the padding shall meet the requirements of the feed in 8.4;
- e) Shall have enough drinking water and fodder, and the drinking water quality of the livestock and poultry shall meet the requirements of GB 5749;
- f) Shall not use the building materials and equipment which are obviously harmful to the health of people and animal;
- g) Shall avoid the livestock and poultry from the harm of the beast.

8.5.2 When feed the egg poultry, may use the artificial lighting to extend the illumination time, but the total illumination time shall not exceed 16 hours every day.

The producer may increase illumination time appropriately according to the healthy condition of the egg poultry or its growth period (such as getting warm for the new born poultry).

8.5.3 Shall let all livestock and poultry go outdoors for free activities in the proper season. But the following may become an exception:

- a) Due to the special construction of the livestock and poultry house, the livestock and poultry cannot go outdoors temporarily, but it shall be improved within a time limit;
- b) The captive breeding is more conducive to the sustainable use of the land resources.

8.5.4 At the final fattening stage of the beef cattle, shall adopt the drylot feeding, but the fattening stage shall not exceed 1/5 of its breeding period, and the longest period shall not exceed 3 months.

8.5.5 Shall not adopt the cage breeding that the livestock and poultry are unable to contact with the soil, and shall not adopt the captive breeding, the drylot feeding and the tying type breeding that will limit the natural behavior of the livestock and poultry.

8.5.6 The gregarious livestock and poultry shall not be fed all alone, except sick animals, adult female animals and animals in its latter half of gestation.

8.5.7 Shall not use forced feeding.

8.6 Prevention and Treatment of Disease

8.6.1 The prevention and treatment of disease shall be performed according to the following principles:

- a) Select the varieties with the good adaptability and disease resistance according to the regional characteristics;
- b) Provide high quality fodder, proper nutrition and suitable activities, to improve the nonspecific immunity of the livestock and poultry;

- c) Strengthen the management of the facilities and the environmental health, and maintain suitable breeding density for the livestock and poultry.

8.6.2 May use the disinfectants listed in Appendix B Table B.2 for the livestock and poultry farms. When adopt the disinfection treatment, shall let the livestock and poultry move away from the treatment area. The animal manure shall be cleaned regularly.

8.6.3 May use the botanical source preparations, the trace elements and the Chinese veterinarian, the acupuncture and moxibustion, and homeopathic treatment for the disease of the livestock and poultry.

8.6.4 May use the vaccine inoculation, and shall not use the genetic engineering vaccine (except the national compulsory immunization vaccines). When breeding field have the risk of certain diseases, and cannot use other methods to control, may use the emergency vaccine inoculation (including the vaccination with the purpose of prompting the antibody production in the maternal body).

8.6.5 Shall not use the antibiotic or the chemosynthetic veterinary drug for the preventive treatment of the livestock and poultry.

8.6.6 When using a variety of preventive measures is still unable to control the disease or the injury of the livestock and poultry, may use the conventional veterinary drug for the livestock and poultry under the guidance of veterinary, but shall pass 2 times withdrawal time for that drug (if 2 times withdrawal time is less than 48 hours, shall reach 48 hours), after that, these livestock and poultry and its products may be sold as the organic products.

8.6.7 Shall not use antibiotic, chemosynthetic antiparasitic agent or other growth promoter to stimulate growth of the livestock and poultry. Shall not use hormone to control the reproductive behavior (such as estrus induction, synchronization of estrus and superovulation etc), but hormone may be used for disease treatment of the individual animal under the veterinary supervision.

8.6.8 In addition to the statutory vaccination and the treatment of expelling parasites, the livestock and poultry with the breeding period less than 12 months may only accept one course of treatment with antibiotic or chemosynthetic veterinary drug; the livestock and poultry with the breeding period more than 12 months may accept up to three courses of treatment with the antibiotic or the chemosynthetic veterinary drug for every 12 months. If it will exceed the permitted course of treatment, it shall pass the specified conversion period.

8.6.9 As for the livestock and poultry which accept the treatment with antibiotic or chemosynthetic veterinary drug, the large animal shall be marked one by one, the poultry and the small animal may be marked by group.

8.7 Non-therapeutic Operation

8.7.1 The organic breeding emphasizes the respect of the individual characteristics of the animals. Shall breed the varieties which do not need to adopt the non-therapeutic operation as far as possible. Under the premise of reducing animal suffering as far as possible, may adopt the following non therapeutic operation to the livestock and poultry, when necessary, and may use anesthetics:

- a) Physical castration;
- b) Amputation of horn;
- c) Passivating treatment of canine teeth for the piglet within 24 hours after birth;
- d) Docking of lamb;
- e) Cutting feather;
- f) Retaining ring.

8.7.2 Shall not adopt the following non therapeutic operation:

- a) Docking (except lamb);
- b) Breaking beak, breaking toe;
- c) Ironing wing;
- d) Breaking teeth of piglet;
- e) Other non-therapeutic operation without the definite permission.

8.8 Breeding

8.8.1 It is suitable to adopt the natural reproduction mode.

8.8.2 May use various breeding methods (such as artificial insemination) which will not have a strong impact on the genetic diversity of the livestock and poultry.

8.8.3 Shall not use the artificial or auxiliary reproductive technology (such as embryo transfer or clone) which will have a strong impact on the genetic diversity of the livestock and poultry.

8.8.4 Except for treatment purposes, shall not use the reproductive hormone to promote the ovulation and the delivery of the livestock and poultry.

8.8.5 If the female animal accepts the treatment of any prohibited substances during the later 1/3 period of its gestation period, its offspring shall pass the relevant conversion period.

8.9 Transport and Slaughtering

8.9.1 During the period of loading and unloading, transportation, waiting for slaughter and slaughtering of the livestock and poultry, shall have the clear marks and be easy to identify; during the period of loading and unloading, transportation and warehousing of other livestock and poultry products, and shall have the clear marks and be easy to identify.

8.9.2 During the period of loading and unloading, transportation, waiting for slaughter of the livestock and poultry, shall have the specialist in charge for the management.

8.9.3 Shall provide the appropriate transportation conditions, such as:

- a) avoid exposing the animals being slaughtered or the dead animals to the livestock and poultry by the sense of vision, hearing and smell;
- b) avoid mixing different groups of livestock and poultry; the organic livestock and poultry shall avoid mixing with the conventional products, and shall have the obvious marks;
- c) provide the rest time to relieve stress;
- d) ensure the quality and suitability of the mode of transport and the operating equipment; the means of transport shall be clean and be suitable for the transportation of livestock and poultry, without any sharp or protruding part, avoid hurting the animal;
- e) shall avoid the hunger of livestock and poultry in transit, shall provide the feed and water to the livestock and poultry as necessary;
- f) consider and try to meet the individual needs of the livestock and poultry;
- g) provide the appropriate temperature and the relative humidity;
- h) when loading and unloading, shall give the minimum stress to the livestock and poultry.

8.9.4 The operation of transporting and slaughtering shall be mild as far as possible, and shall conform to the principles of the animal welfare. Shall not use the electric baton and similar device to drive the animals. Shall not use chemosynthetic sedative before the transportation and in transit.

8.9.5 Shall slaughter the animal in the slaughter house which is approved by the government or has the qualification, and shall ensure the good health conditions.

8.9.6 Shall be slaughtered to the nearest site. Unless the distance from the farms to the slaughter house is too far, as a general rule, the time shall not exceed 8 hours in transit.

8.9.7 Shall not bind, hang and slaughter the livestock and poultry before losing consciousness, except the small poultry and other small animals. The tools which are used for losing consciousness before slaughter

shall be in good working condition at any time. As a result of the religious or cultural reasons, it is not allowed to slaughter the livestock and poultry before losing consciousness, must slaughter the animal directly, and shall slaughter the animals in the shortest possible time under the mild environment.

8.9.8 The organic livestock and poultry and the conventional livestock and poultry shall be slaughtered separately, and the products after slaughter shall be stored up separately and have the clear marks. The color used for marking the animal body shall comply with the regulations of the national food hygiene.

8.10 Pest Control Operation

The pest control operation shall adopt the following methods according to the priority:

- a) precautionary measures;
- b) mechanical, physical and biological control methods;
- c) may use the raticide allowed for use by the government and the substances listed in Appendix A Table A.2 in a safe way to the livestock and poultry in the breeding places.

8.11 Environment Impact

8.11.1 Shall take the full consideration to the fodder production capacity, health of the livestock and poultry and environment impact, and ensure the quantity of the livestock and poultry not exceed the maximum grazing capacity in the scope of breeding. Shall take the measures, to avoid the adverse impact on the environment due to the over grazing.

8.11.2 Shall guarantee the storage facilities have enough capacity for the manure of the livestock and poultry, and shall obtain the timely treatment and the rational utilization; as for all storage and processing facilities of the manure, shall avoid causing pollution to the underground and surface water in designing, construction and operation. The emissions of farm pollutants shall comply with the provisions of GB 18596.

9 Aquaculture

9.1 Conversion Period

9.1.1 As for the farm with the non-open type water area, when it is changed to the organic breeding from the conventional breeding, it shall pass the conversion period at least for 12 months;

9.1.2 As for each part of the production unit which is in the same non-open type water area, it shall be certificated separately. Only if the whole water completely conforms to the organic certification standards, it may obtain the organic certification.

9.1.3 If the production unit cannot carry out the organic conversion to each water body for breeding under its jurisdiction, shall set up the strict parallel production management system. The management system shall meet the following requirements:

- a) shall adopt the physical isolation measures between the organic breeding unit and the conventional breeding unit; as for the sessile aquatic organisms growing in the open water area, shall keep a certain distance between the organic breeding area and the conventional area, between the conventional agriculture and the industrial pollution sources.
- b) the organic aquaculture system, including water quality, baitfeed, drugs, inputs and other elements related to the standard, shall be able to be inspected by the certification body;
- c) The files and records between the conventional production system and the organic production system shall be set up separately;
- d) The organic conversion farm shall implement the organic management continuously, and shall not shift between the organic management and the conventional management.

9.1.4 As for the wild sessile organism in the catching zone of the open water area, it may be certificated as the organic aquatic product in the following situations:

- a) the water is not affected by the prohibited substances in this part;
- b) the aquatic ecosystems is in a stable and sustainable status.

9.1.5 May input the aquatic organism of the conventional breeding, but shall pass the relevant conversion period. When input the biodiversity of non-native species, shall avoid the invasive species causing the permanent damage on the local ecological system. Shall not input the genetically modified organisms.

9.1.6 All input aquatic organisms shall adopt the organic breeding method at least during the later 2/3 time of the breeding period.

9.2 Site Selection of Breeding Farm

9.2.1 When select the breeding farm, shall take the consideration to maintain the aquaculture water ecological environment and the balance of the surrounding aquatic and the terrestrial ecosystems, and shall be conducive to keep the biodiversity in the water. The organic breeding farm shall not be affected by the adverse effect of the pollution sources and the conventional breeding farm.

9.2.2 The breeding area and fishing area shall be clearly defined, so as to inspect the elements, such as water quality, baitfeed, drugs etc.

9.3 Water Quality

The water quality of the organic breeding farm and the catching zone of the open water are of open water shall comply with the provisions of GB 11607.

9.4 Breed Aquatics

9.4.1 Basic Requirements of Breeding

9.4.1.1 Shall adopt the breeding methods which are suitable for the physiological habits of the breeding objects and the local conditions. Shall not adopt the permanent aerobic breeding methods.

9.4.1.2 Shall take the effective measures, to avoid the organisms from other breeding system going into the organic breeding farm and preying on the organic organisms.

9.4.1.3 Shall not adopt any man-made damage measure to the breeding objects.

9.4.1.4 May extend the illumination time, but the daily illumination time shall not exceed 16 hours.

9.4.1.5 As for the building materials and the production equipment used for the aquaculture, it shall not use the coatings and the synthetic chemicals, to avoid causing harmful effect on the environmental or the organisms.

9.4.2 Baitfeed

9.4.2.1 The baitfeed which is provided in the organic aquaculture shall be organic, wild or permitted by the certification body. When the quantity or the quality of the organic or wild baitfeed cannot meet the demand, may provide the conventional feed no more than 5% (calculated by the dry matter) of total feed quantity. When there is an unforeseen situation, after obtaining the assessment and the agreement from the certification body, may feed no more than 20% (calculated by the dry matter) of the conventional baitfeed in that year.

9.4.2.2 At least 50% animal protein in the baitfeed shall come from the byproduct of the food processing or the products which are suitable for the human consumption. When there is an unforeseen situation, shall reduce the proportion to 30% in that year.

9.4.2.3 May use the natural mineral additives, vitamins and trace elements; when it cannot meet the nutritional requirement of the aquatic animal, may use the minerals and the trace elements and the synthetic vitamins listed in Appendix B Table B.1.

9.4.2.4 Shall not use the night soil. Shall not directly use the animal manure without processing.

9.4.2.5 Shall not add or provide the following substances by any means in the baitfeed for the aquatic organism:

- a) Synthetic growth promoting agent;
- b) Synthetic attractant;
- c) synthetic antioxidants and preservatives;
- d) artificial coloring matter;
- e) non-protein nitrogen (urea etc);
- f) same organisms and its products with the breeding objects;

- g) baitfeed from the chemical solvent extraction;
- h) amino acids from the chemical purification;
- i) genetically modified organisms or its products;

Under the special weather conditions, may use the synthetic baitfeed antiseptic, but shall obtain the permission by the certification body in advance, and the certification body shall stipulate the using period and the quantity in accordance with the specific conditions.

9.4.3 Prevention and Treatment of Disease

9.4.3.1 Shall ensure the health of the breeding objects through the precautionary measures (such as optimal management, breeding and feeding). All management measures shall be aimed at improving the disease resistance of the organisms.

9.4.3.2 The breeding density shall not affect the health of the aquatic organisms, or cause the abnormal behavior. Shall monitor the biological density regularly, and adjust it according to the need.

9.4.3.3 May use quick lime, bleach, chlorine dioxide, tea seed cake, potassium permanganate and microbial agents to disinfect the aquatic water and the pond bed mud, to prevent the happening of the disease of aquatic organisms.

9.4.3.4 May use the natural medicines for prevention and treatment of the disease of aquatic organisms.

9.4.3.5 When the preventive measures and the natural medicine treatment are invalid, may use the conventional fishery drugs to the aquatic organisms. When carry out the conventional drug therapy, shall adopt the isolation measures for the sick organisms.

Only if the aquatic organisms which have used the conventional drugs pass 2 times withdrawal time of the used drugstore, may be sold as the organic aquatic organisms continually.

9.4.3.6 Shall not use antibiotics, chemosynthetic drugs and hormone to carry out the daily disease prevention for the aquatic organisms.

9.4.3.7 When there is the risk of certain diseases and it cannot be controlled by other management technology, or where it is provided for in the state laws, may use the vaccination for the aquatic organisms, but shall not use the genetically engineered vaccine.

9.4.4 Breeding

9.4.4.1 Shall respect the physiological and behavioral characteristics of the aquatic organisms, and reduce the interference to them. It is suitable to adopt the natural reproduction way, and not suitable to adopt the non-natural reproduction way, such as artificial insemination and artificial incubation etc. Shall not use parthenogenetic reproduction, genetic engineering or multiploid of the artificial induction to breed the aquatic organisms.

9.4.4.2 Shall select the varieties which are suitable for the local conditions with the good disease resistance. If it is needed to input the aquatic organisms, when can meet the conditions, shall have the priority to select the organisms from the organic production system.

9.5 Fishing

9.5.1 The fishing amount of the organic aquatic organisms in the open water area shall not exceed the reproduction ability of the ecological system, and shall maintain the sustainable production of the natural waters and the survival of other species.

9.5.2 Shall use the mild fishing measures, so as to reduce the stress and the adverse impact on the aquatic organisms down to the minimum.

9.5.3 The specifications of the fishing tools shall be in conformity with the relevant provisions of the state.

9.6 Transportation of Fresh Aquatic Products

9.6.1 In transit, shall have the specialist in charge for managing the transportation objects, to keep the healthy status.

9.6.2 Water quality, water temperature, oxygen content, pH value of the water used for transportation and the loading density of the aquatic organisms shall satisfy the needs of the transportation species.

9.6.3 Shall try to reduce the frequency of the transportation.

9.6.4 The transportation equipment and materials shall not have the potential toxicity effects on the aquatic animals.

9.6.5 Before the transportation and in transit, shall not use the chemosynthetic sedative or the exhilarant to the aquatic animals.

9.6.6 The transport time shall be shortened as far as possible, and shall not cause the evitable impact or the physical damage on the transportation objects.

9.7 Slaughtering of Aquatic Animal

9.7.1 The slaughtering management and technology shall give full consideration to the physiology and the behavior of the aquatic animals, and shall conform to the principles of the animal welfare.

9.7.2 After the aquatic animals arrive at the destination, shall give a certain of recovery phase before slaughtering.

9.7.3 During slaughtering, shall reduce the stress and the pain to the aquatic animals as far as possible. Before slaughtering, shall make it in the unconscious status. Shall regularly check whether the equipment is in the good conditions, to ensure the aquatic animals loss the consciousness or die rapidly.

9.7.4 Shall avoid exposing the living aquatic animals to the dead aquatic animals or the aquatic animals being slaughtered directly or indirectly.

9.8 Environment Impact

9.8.1 The drainage of the non-open water area shall obtain the permission of the local administrative department of environmental protection.

9.8.2 Shall encourage the agricultural comprehensive utilization to the open water area or the bed mud.

9.8.3 If breed the aquatic organisms in the open water area, shall avoid or reduce the pollution to the water.

10 Bees and Bee Products

10.1 Conversion Period

10.1.1 The beekeeping shall pass the conversion period at least for 12 months.

10.1.2 As for the bee farm during the conversion period, if it is unable to obtain the comb foundation processed by the organic beeswax from the market or the other way, may use the conventional comb foundation with approval, but shall change all the comb foundation within 12 months. If it is unable to change, the certification authority may decide to extend the conversion period.

10.2 Input of Bees

10.2.1 In order to update the swarm, the organic production unit may input 10% non-organic queen bee and swarm every year, but the honeycomb or the comb foundation for the queen bee and the swarm shall come from the organic production unit. In this case, it is no needed to pass the conversion period.

10.2.2 Due to the health problem or the catastrophic event, cause the massive death of bees, and cannot obtain the organic swarm, may use the non-organic bees to supplement the swarm, and shall comply with the requirements in Clause 10.1.

10.3 Scope of Collecting Honey

10.3.1 The bee farm shall be set up in the organic agricultural production area or in the area without using the prohibited substances at least for 36 months.

10.3.2 During the production season, there shall be enough honey plants within a range of 3 km to the bee farm (radius of gathering honey), including the crops of the organic production, the natural vegetation or the crops planted in an environmentally friendly way, and the clean water source.

10.3.3 Within 3km radius range to the beehive, there shall not have source of pollution that would have any impact on the health of the swarm, including the flowering crops which have used the prohibited

substances, the genetically modified crops, the golf course, the wasteyard, the large residential areas and the busy roads etc.

10.3.4 If the bees are breeding outside in the natural (wild) area, shall take into consideration of the impact on the local insects.

10.3.5 The beehive storage area and the scope of gathering honey shall be clearly defined.

10.4 Feeding of Bees

10.4.1 When the period of gathering honey is ended, shall keep enough honey and pollen in the beehive, so that the swarm can pass the winter.

10.4.2 During the season of not gathering honey, shall provide the enough organic honey and pollen to the bees.

10.4.3 Due to the weather conditions or other special situations, when the swarm are facing hunger in lack of the honey, may adopt the artificial feeding for the bees; but it may only be carried out after the last period of gathering honey and 15 days before the next nectar flow. If can purchase the organic honey or the organic syrup, shall feed the honey or the syrup from the organic production. If cannot purchase the organic honey or the organic syrup, may feed the conventional honey or syrup within the stipulated time with the permission of the certification body.

10.5 Prevention and Treatment of Disease and Pest

10.5.1 Shall ensure the health and living conditions of the swarm through the health and management of the beehive, to prevent the happening of the parasitic mites and other harmful organisms. Specific measures include:

- a) select the robust swarm which are suitable for the local conditions, to weed out the weak swarm;
- b) take appropriate measures to cultivate and screen the queen bee with the disease resistance and the parasites resistance;
- c) clean and disinfect the facilities regularly;
- d) change the honeycomb regularly;
- e) keep enough honey and pollen in the beehive;
- f) mark number on the beehive one by one, so as to identify easily, and shall inspect the swarm regularly.

10.5.2 If any disease occurs, shall have the priority to adopt the treatment with the plants or the botanical source preparations or the homeopathy; shall not use the treatment with the plants or the botanical source preparations within 30 days before the nectar flow, and it shall not be used when the comb honey super is on the beehive.

10.5.3 In the case the treatment with the plants or the botanical source preparations or the homeopathy cannot control the disease, may use the substances listed on Appendix B Table B.3 for the control of disease, and may use the substances listed in Appendix B Table B.2 for the disinfection of the beehive or the beekeeping tools.

10.5.4 Shall place the beehive with the sick bees in the healing area or the isolation area which is far away from the healthy beehive.

10.5.5 Shall destroy the beehive and materials which are infected seriously by the sick bees;

10.5.6 Shall not use antibiotics or other substances not listed in Appendix B Table B.3, except when the health of the entire swarm is threatened. The beehive after processing shall be taken away from the organic production and be marked, and shall pass the conversion period for 12 months again. The bee products of that year shall not be certificated as the organic products.

10.5.7 Only if the bees are infected by the bee mite, may kill the swarm of the male bees.

10.6 Breeding of Queen Bee and Swarm

10.6.1 Encourage the cross breeding of different kinds of the swarm.

10.6.2 May select breeding, but shall not adopt the artificial insemination to the queen bee.

10.6.3 May kill the aging queen bee to replace the queen bee, but shall not cut wings.

10.6.4 Shall not kill the swarm in the autumn.

10.7 Beeswax and Beehive

10.7.1 The beeswax shall come from the production unit of the organic beekeeping.

10.7.2 The processed beeswax shall ensure the supply for the comb foundation of the organic bee farm.

10.7.3 As for the newly organized swarm or the swarm in the conversion period, may use the non-organic beeswax, but shall meet the following conditions:

- a) It is unable to obtain the organic beeswax from the market;
- b) There is evidence that the conventional beeswax is not polluted by the prohibited substances in the organic production; and it comes from the beeswax cover.

10.7.4 Shall not use the beeswax from the unidentified sources.

10.7.5 The beehive shall use the natural materials (such as the wood without the chemical processing) or the plastics covered with the organic beeswax, and shall not use wood preservative or the wood processed by other prohibited substances to produce and maintain the beehive.

10.7.6 The lead paint shall not be used on the surface of the beehive.

10.8 Harvesting and Processing of Bee Product

10.8.1 The swarm management and the honey harvest method shall be in order to protect the swarm and maintain the swarm as the goal; shall not kill the swarm or destroy the bee pupa in order to improve the bee production.

10.8.2 In the operation of honey extract, shall not use the chemical expellant.

10.8.3 The immature honey shall not be harvested.

10.8.4 When remove the impurity in the honey, the heating temperature shall not exceed the 47 °C, and shall try to shorten the heating process.

10.8.5 Shall not take the honey from the hatching honeycomb (except the Chinese bee).

10.8.6 Shall try to adopt the mechanical method to remove the cover of the beehive, and shall avoid using the heating method to remove the cover of the beehive.

10.8.7 Shall precipitate the impurities in the honey by gravity to make honey. If use a fine mesh filter, its pore diameter shall be greater than or be equal to 0.2 mm.

10.8.8 All the material surface in contact with the facilities of taking honey shall be the stainless steel or be coated with the organic beeswax.

10.8.9 The surface of the honey container shall be coated with the coating allowed for use in the food and the beverage package, and shall be covered with the organic beeswax. Shall not make the honey in contact with the plating metal containers or the metal containers with the surface oxidation.

10.8.10 Shall prevent the bees going into the extracting facilities of the honey.

10.8.11 Shall wash the extracting facilities with the hot water every day to keep clean.

10.8.12 Shall not use the chemosynthetic substances (such as the cyanide) as the fumigation agent.

10.9 Storage of Bee Product

10.9.1 The finished product of the honey shall use the sealed packaging and shall be kept in storage under the stable temperature, to avoid honey metamorphism.

10.9.2 As for the site for taking honey and storing honey, shall prevent the invasion of the insect pests and the mice.

10.9.3 Shall not use chemosynthetic substances (such as the naphthalene) to the stored honey and the honey products.

11 Packaging, Storage and Transportation

11.1 Packaging

11.1.1 The package materials shall conform to the hygienic requirements and the relevant provisions of the state; it is suitable to use the repeatable, recoverable and biodegradable package materials.

11.1.2 The packing shall be simple and practical.

11.1.3 Shall not use the packaging or the containers which have contacted with the prohibited substances.

11.2 Storage

11.2.1 Shall clean the warehouse, and shall adopt the pest control measures.

11.2.2 May use the storage methods such as the room temperature storage, the dynamic controlled atmosphere, the temperature control, the drying and humidity control etc.

11.2.3 The organic products shall be stored separately as far as possible. If it is stored with the conventional products, shall assign a particular area in the warehouse, and adopt the necessary measures (such as packaging and labeling), to ensure the identification of the organic products and the conventional products.

11.3 Transportation

11.3.1 Shall use the dedicated transportation facility. If use the non-dedicated transportation facility, shall clean it before loading of the organic products, to avoid mixing with the conventional products and the pollution from the prohibited substances.

11.3.2 On the containers and/or packaging, shall have the clear organic label and the relevant instructions.

Appendix A

Appendix A (normative appendix)

Input allowed for use in the organic plant production

Table A.1 Improvement of Soil Fertility and Improving substances

Category	Name and Composition	Conditions of Usage
I. Plant and Animal Sources	Plant material (crop stalk, green manure etc)	
	Animal manure and compost (including barnyard manure)	After composting, and become thoroughly decomposed;
	Anaerobes of excrements of the livestock and the plant materials Fermentation products (biogas manure)	
	Seaweed or seaweed products	Only directly obtained through the following channels: Physical process, including dehydration, refrigeration and grinding; extract with water or acid and/or alkali solution; Fermentation
	Timber, bark, sawdust, wood chips, wood ash, charcoal and humic substances;	Coming from the lumber without the chemical treatment after felling, ground coverage or through composting;
	Subsidiary products of animal origin (dried blood, digested tankage, bone meal, hoof powder, horn meal, fur, feathers and hair powder, fish meal, milk and milk products etc);	Not add the prohibited substances, through composting or fermentation treatment;
	Mushroom cultivation waste and earthworm cultivation substrate	Initial raw material of culture medium is limited to the products in this appendix, through composting;
	By-product of food industry	Through composting or fermentation treatment
	Plant ash	As the products after burning of fuel wood
	Peat	Does not contain the synthetic additives. Shall not be used for soil improvement; only allowed for use as potting media;
	Feed Grain	Cannot be processed by the chemical methods
II. Mineral Sources	Rock phosphate	Natural sources, cadmium content is less than or equal to 90mg/Kg phosphorus pentoxide
	Potassium powder	Natural sources, no enrichment by the chemical methods; Chlorine content is less than 60%.
	Borax	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Microelement;	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Magnesite powder;	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Sulphur	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Limestone, gypsum and chalk	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Clay (such as perlite, vermiculite etc)	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Sodium chloride	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Calclime	Only used for soil pH adjustment of tea garden;
	Kiln dust	Without chemical treatment, without adding the chemosynthetic substance;
	Calcium magnesium carbonate	Natural sources, without chemical treatment, without adding the chemosynthetic substance;
	Epsom salt class	Without chemical treatment, without adding the chemosynthetic substance;
III. Microbial Origin	Biodegradable microbial processing By-product, such as wine and distilled spirits; By-product of processing industry	Without adding the chemosynthetic substance;
	Extractive of natural microorganism	Without adding the chemosynthetic substance;

Table A.2 Plant Protection Products

Category	Name and Composition	Conditions of Usage
I. Plant and Animal Sources	Toosedarin (extractive of melia australis, neem etc)	Insecticide
	Natural pyrethrins (extracting solution of pyrethrum plants)	Insecticide
	Sophocarpidine and oxymatrine (extractive of sophora flavescens etc)	Insecticide
	Rotenoid	Insecticide
	Cnidium lactone (extractive of fructus cnidii)	Pesticide, fungicide
	Berberine (extractive of coptis chinensis, golden cypress etc)	Bactericide
	Emodin monomethyl ether (extractive of rheum officinale, polygonum cuspidatum)	Bactericide
	Plant oil (such as oleum menthae, pine oil, coriander oil)	Insecticide, acaricide, fungicide, sprout inhibitor
	Oligosaccharide (chitosan)	Bactericide, plant growth regulator
	Natural attractant and nematocide (such as marigold, maidenhair, mustard oil)	Nematicide
	Natural acid (such as vinegar, wood-vinegar, bamboo Vinegar)	Bactericide
	Mushrooms proteoglycan (extractive of mushroom)	Bactericide
	Hydrolyzed protein	Attractant, only under the condition with permission for use, and combine with the appropriate products in this appendix.
	Milk	Bactericide
	Beeswax	Used for grafting and trim
	Bee propolis	Bactericide
	Gelatin	Insecticide
	Lecithin	Fungicide
Plant extract with the repelling action (extractive of garlic, mint, pepper, chinese prickly ash, lavender, radix bupleuri and wormwood)	Repellent	
Natural enemies of insects (such as trichogramma, ladybird, green lacewing etc)	Control of insect pests	
II. Mineral Sources	Copper salt (such as copper sulfate, copper hydroxide, copper oxychloride, octylic acid copper etc)	Fungicide, prevent excessive application and cause the pollution of copper.
	Lime sulphur	Fungicide, insecticide, acaricide
	Bordeaux mixture	Fungicide, the maximum usage of copper per hectare every year shall not exceed 6kg.
	Calcium hydroxide (lime water)	Fungicide, insecticide
	Sulphur	Fungicide, acaricide, Repellent
	Potassium permanganate	Fungicide, bactericide; only used for fruit trees and vines;
	Potassium bicarbonate	Fungicide
	Paraffin oil	Insecticide, Acaricide
	Light material oil	Insecticide, fungicide; only used for fruit trees, grape and tropical crops (such as banana);
	Calcium chloride	Used for the treatment of acalcerosis

Table A.2 (Continued)

Category	Name and Composition	Conditions of Usage
II. Mineral Sources	Kieselguhr	Insecticide
	Clay (such as bentonite, pearlite, vermiculite, zeolite etc)	Insecticide
	Silicate (sodium silicate, quartz)	Repellent
	Ferric sulfate (ferric ion)	Invertebrate poison
III. Microbial Origin	Fungi and extractive agent of fungi (such as beauveria bassiana, verticillium, trichoderma etc)	Insecticide, Bactericide, Herbicide
	Bacteria and extractive of bacteria (such as bacillus thuringiensis, bacillus subtilis, bacillus cereus, bacillus licheniformis, pseudomonas fluorescens etc)	Insecticide, Bactericide, Herbicide
	Virus and extractive of virus (such as nuclear polyhedrosis virus, granulosis virus etc)	Insecticide
IV. Others	granulosis virus	Fungicide
	Carbon dioxide	Insecticide, used for storage facilities;
	Ethyl alcohol	Bactericide
	Sea salt and saline water	Bactericide, only used for seed processing, especially the rice seeds;
	Alums	Bactericide
	Soft soap (green soap)	Insecticide
	Ethylene	Accelerate the ripening of banana, kiwi fruit, persimmon; adjust the flower of pineapple; inhibiting germination of potatoes and onions;
	Quartz sand	Fungicide, acaricide, Repellent
	Insect sex pheromones	Only used for trap and emitting vessel;
	Diammonium hydrogen phosphate	Attractant, only used for trap;
V. Trap, Barrier	Physical measures (such as color trap, mechanical trap);	
	Covering (net)	

Table A.3 Detergents and disinfectants

Name	Conditions of Usage
Acetic acid (non synthetic)	Cleaning Equipment
Vinegar	Cleaning Equipment
Ethyl alcohol	Disinfection
Isopropyl alcohol	Disinfection
Hydrogen peroxide	Only food grade hydrogen peroxide, equipment cleaning agents;
Sodium carbonate, sodium bicarbonate	Sanitization of Equipment
Sodium carbonate, sodium bicarbonate	Sanitization of Equipment
Bleaching agent	Including calcium hypochlorite, chlorine dioxide or sodium hypochlorite, may be used to disinfect and clean the food contact surfaces; The chlorine concentration of the wash water which will contact with the plant products directly shall comply with requirements of GB 5749-2006.
Peracetic acid	Sanitization of Equipment
Ozone	Sanitization of Equipment
Potassium hydroxide	Sanitization of Equipment
Sodium hydroxide	Sanitization of Equipment
Citric acid	Cleaning Equipment
Soap	Only the biodegradable. May be used for cleaning equipment.
Soap base algicide/fog remover	Algicide, disinfectant and bactericide, used for clean and irrigation system, not including the prohibited substances.
Potassium permanganate	Sanitization of Equipment

Appendix B
(normative appendix)

Substances allowed for use in the organic animal breeding

Table B.1 Additives and Materials for Animal Nutrition

No.	Name	Description	INS
1	Fe	Ferrous sulfate monohydrate, iron sulfate heptahydrate, ferrous carbonate;	1
2	Iodine	Anhydrous calcium iodate, calcium iodate hexahydrate, sodium iodide;	2
3.	Cobalt	Cobaltous sulfate monohydrate, cobaltous sulfate heptahydrate;	3
4	Copper	Copper sulfate pentahydrate	4
5	Manganese	Manganese carbonate, manganous oxide, manganic oxide, manganese sulfate monohydrate, manganese sulfate tetrahydrate;	5
6	Zinc	Zinc oxide, zinc carbonate, zinc sulphate monohydrate, zinc sulfate heptahydrate	6
7	Molybdenum	Sodium molybdate	7
8	Selenium	Selenium	8
9	Sodium	Sodium chloride, sodium sulfate;	
10	Calcium	Calcium carbonate (rock flour, shell powder), calcium lactate	
11	Phosphorus	Calcium hydrophosphate, monocalcium phosphate, tricalcium phosphate;	
12	Magnesium	Magnesium oxide, magnesium chloride, magnesium sulfate;	
13	Sulphur	Sodium sulfate	
14	Vitamin	Vitamin come from the feed source with the natural growth. When feed the monogastric animal, may use the synthetic vitamin which has the same structure with the natural vitamin. If the ruminant cannot obtain the natural vitamin, may use the synthetic vitamin A, D and E, which are the same with the the natural vitamin.	
15	Microorganism	Used for the husbandry technology, not the transgenic/genetically engineering organisms or products.	
16	Yeast	Silage additives, not the transgenic/genetically engineering organisms or products.	
17	Brewers yeast	Used for the animal nutrition.	
18	Enzyme	Silage additives, used for the husbandry technology, not the transgenic/genetically engineering organisms or products.	
19	Sorbic acid	Antiseptic	200
20	Formic acid	Antiseptic and silage additives, be used only when the weather cannot meet the conditions of being fully fermented.	236
21	Acetic acid	Antiseptic and silage additives, only when the weather cannot meet the conditions of being fully fermented.	260
22	Lactic acid	Antiseptic and silage additives, be used only when the weather cannot meet the conditions of being fully fermented.	270
23	Propionic acid	Antiseptic and silage additives, be used only when the weather cannot meet the conditions of being fully fermented.	280

Table B.1 (Continued)

No.	Name	Description	INS
24	Citric acid	Antiseptic, be used only when the weather cannot meet the conditions of being fully fermented.	330
25	Calcium stearate	Natural sources, adhesion agent and anti-caking agent;	470
26	Silicon dioxide	Adhesion agent and anti-caking agent	551b
27	Sea Salt	Silage additives	
28	Coarse salt	Silage additives	
29	Whey	Silage additives	
30	Sugar	Silage additives	
31	Sugar beet pulp	Silage additives	
32	Cereal flours	Silage additives	

Table B.2 Detergents and disinfectants allowed for use in the animal breeding sites

Name	Conditions of Usage
Potash soap and soda soap	
Water and steam	
Lime water (calcium hydroxide solution)	
Lime (calcium oxide)	
Calcined lime (calcium hydroxide)	
Sodium hypochlorite	Used for the disinfection of facilities and equipment.
Calcium hypochlorite	Used for the disinfection of facilities and equipment.
Chlorine dioxide	Used for the disinfection of facilities and equipment.
Potassium permanganate	May use 0.1% potassium permanganate solution, to avoid having too strong corrosive.
Sodium hydroxide	
Potassium hydroxide	
Hydrogen peroxide	Only food grade, used as the external disinfectant. May be used as a disinfectant and be added to the drinking water for the farm animal.
Botanical source preparations	
Citric acid	
Peracetic acid	
Formic acid	
Lactic acid	
Oxalic acid	
Isopropyl alcohol	
Acetic acid	
Ethyl alcohol	For disinfection and sterilization.
Iodine (such as iodine in alcohol)	As a cleaner, shall use the hot water to flush; only non-elemental iodine, the volume percentage shall not exceed 5%.
Nitric acid	Used for cleaning the milk equipment, shall not be in contact with the livestock and poultry or the land under the organic management.
Phosphoric acid	Used for cleaning the milk equipment, shall not be in contact with the livestock and poultry or the land under the organic management.
Formaldehyde	Used for the disinfection of facilities and equipment.
Products used for cleaning the nipple and the disinfection shall comply with the relevant national standards.	
Sodium carbonate	

Table B.3 Materials of disease and pest control operation allowed for use in the beekeeping

Name	Conditions of Usage
Methanoic acid (formic acid)	Control of parasitic mite. Use of this kind of substance may be stopped after the final honey harvest and 30 days before adding the honey storage box.
Lactic acid, acetic acid, oxalic acid;	Control of plant diseases and insect pests
Menthol	Control the bees respiratory parasitic mites.
Natural essential oil (thymol crystals, eucalyptol or camphor)	Repellent
Sodium hydroxide	Control of disease
Potassium hydroxide	Control of disease
Sodium chloride	Control of disease
Plant ash	Control of disease
granulosis virus	Control of disease
Sulphur	Only be used for the disinfection of beehive and honeycomb.
Bacillus thuringiensis	Non-GMO
Bleaching agent (calcium hypochlorite, chlorine dioxide or sodium hypochlorite)	Disinfection of beekeeping tools
Steam and flame	Disinfection of beehive
Agar	Only water extraction.
Raticide (Vitamin D)	Used for control of rat damage.

Appendix C
(informative appendix)

Code of evaluating the use of other input in the organic production

In the case that the products (involving the production and the breeding of the organic plants and animals) listed on Appendix A and B cannot meet the requirements, may use the evaluation criterion described in this standard to evaluate other substances used in the organic agriculture except Appendix A and B.

C.1 Principles

C.1.1 Improvement of Soil Fertility and Improving substances

C.1.1.1 This substance is to achieve or to maintain the soil fertility or to meet the special nutritional requirements. It is necessary for the special soil improvement and the crop rotation measures, but the methods and the substances described in this part and Appendix A cannot satisfy and replace it.

C.1.1.2 This substance is come from plant, animal, microbial or mineral, and may go through the following treatment:

- a) physical (mechanical, heat) treatment;
- b) enzyme treatment;
- c) microorganisms (compost, digestion) treatment.

C.1.1.3 Through the reliable test data, it has proved that the using of this substance will not cause or produce the unacceptable impact or pollution on the environment, including the impact or the pollution on the soil organisms.

C.1.1.4 The using of this substance shall not cause the unacceptable impact on the quality and the safety of the finished products.

C.1.2 Plant Protection Products

C.1.2.1 The substance is necessary for the prevention and the control of pest or special disease, and except this substance, there is no other biological and physical methods or the alternative method of the plant breeding and (or) the effective management of technology may be used for the prevention and the treatment of this kind of the pest or special disease.

C.1.2.2 The substance (active ingredients) is come from plant, animal, microbial or mineral, and may go through the following treatment:

- a) physical treatment;
- b) enzyme treatment;
- c) microorganisms treatment;

C.1.2.3 Through the reliable test data, it has proved that the using of this substance shall not cause or produce the unacceptable impact or pollution on the environment.

C.1.2.4 If the quantity of some substance is not enough in the natural form, may consider using the chemosynthetic substance which has the same nature with the natural substance, such as the chemosynthetic ectohormone (sex attractant), but the precondition is that the using shall not cause the pollution on the environment or the products directly or indirectly.

C.1.3 The input which is allowed for use of the animal nutrition and the feed production.

C.1.3.1 The substance is to meet the special nutritional requirements of the animals, or it is necessary for the feed processing, but the methods and the substances described in this part and Appendix B Table B.1 cannot satisfy and replace it.

C.1.3.2 The substance (active ingredients) is come from plant, animal, microbial or mineral, and may go through the following treatment:

- a) physical treatment;
- b) enzyme treatment;
- c) microorganisms treatment;

C.1.3.3 Through the reliable test data, it has proved that the using of this substance shall not cause or produce the unacceptable impact or pollution on the environment.

C.1.4 The input which is allowed for use of cleaning and disinfecting the livestock and poultry farm, the prevention and control of bees disease and pest.

C.1.4.1 The substance is necessary for cleaning and disinfecting the farm, the prevention and control of bees disease and pest, but the methods and the substances described in this part and Appendix B Table B.2 or B.3 cannot satisfy and replace it.

C.1.4.2 The substance (active ingredients) is come from plant, animal, microbial or mineral, and may go through the following treatment:

- a) physical treatment;
- b) enzyme treatment;
- c) microorganisms treatment;

C.1.4.3 Through the reliable test data, it has proved that the using of this substance shall not cause or produce the unacceptable impact or pollution on the environment.

C.1.4.4 If the quantity of some substance is not enough in the natural form, may consider using the chemosynthetic substance which has the same nature with the natural substance, but the precondition is that the using shall not cause the pollution on the environment or the products directly or indirectly.

C.2 Evaluation Procedure

C.2.1 Necessity Can only use certain input in case of need.

The necessity of the input of some substance shall be evaluated through the aspects of the output, the quality of products, the environmental safety, the ecological protection, the landscape and the survival conditions of humans and animals. The using of some input may be limited to:

- a) special crops (especially the perennial crops);
- b) special area;
- c) special conditions of using the substance .

C.2.2 Properties and Production Methods of Input

C.2.2.1 Properties of Input

The source of the input is generally come from (in priority order):

- a) the organic matter (plants, animals and microorganisms);
- b) mineral.

May use the chemosynthetic substance which is equal to the natural substance.

Where possible, shall have the priority to select the renewable input. Secondly, shall select the input of the mineral source; thirdly, may select the input which is equal to the natural substance in the chemical properties. When the input with the same chemical properties is allowed for use, shall take into consideration of the ecological, technical or economic reasons.

C.2.2.2 Production Methods

The ingredients of input may go through the following treatment:

- a) mechanical treatment;
- b) physical treatment;
- c) enzyme treatment;
- d) microbial action treatment;
- e) chemical treatment (as an exceptional case and shall be restricted).

C.2.2.3 Collection

The raw material collecting of input shall not affect the stability of the natural environment, and

shall not affect the survival of any species in the collecting area.

C.2.3 Environmental Safety

The input shall not do harm to the environment or have a lasting negative impact on the environment. The input also shall not cause the unacceptable pollution on the surface water, the underground water, the air and the soil. Shall evaluate the processing, the using and the decomposition course of these substances at all stages.

Shall take into consideration of the following features of the input:

a) Biodegradability.

All inputs shall be biodegradable as the carbon dioxide, the water and (or) its mineral form.

As for the input which has the high acute toxicity to the non-target organisms, its half-life period shall not exceed 5 days.

As for the input of the non-toxic natural material, there is no specified degradation time limit.

b) High acute toxicity to the non-target organisms;

When the input has the high acute toxicity to the non-target organisms, it shall be restricted for use. Shall take measures to ensure the survival of these non-target organisms. May stipulate the maximum permissible usage. If it is unable to take measures to ensure the survival of these non-target organisms, shall not use the input.

c) Long-term chronic toxicity.

Shall not use the input which will accumulate in the organisms or the biological system, and shall not use the input which is known or suspicious with the mutagenicity or the carcinogenicity. If the input of these substances may cause danger, shall take the sufficient measures to reduce the danger to the acceptable level and prevent the negative impact on the environmental for a long duration.

d) Chemosynthetic substance and heavy metal;

The input shall not contain the chemosynthetic substance (heteroplasia chemosynthetic product) with the quantity of damage. Only if its properties are as same as the natural substances, may use the chemosynthetic substances.

Shall control the heavy metal content of the input as far as possible. Due to the lack of substitutes, and because they have been used traditionally for a long period of time, the copper and the copper salt are allowed for use at present, but the copper in any form shall be regarded as being allowed for use temporarily, and in terms of its impact on the environment, shall be restricted for use.

C.2.4 Impact on the human health and the quality of the products

C.2.4.1 Health of Human Body

The input shall be harmless to the human body. Shall take into consideration of the processing, the using and and the decomposition course of the input at all stages; shall take measures to reduce the danger of using, and establish the standards for the use of input in the organic agriculture.

C.2.4.2 Quality of Products

The input shall not have the negative effects on the quality of products (such as the taste, the guarantee period and the appearance quality etc).

C.2. 5 Ethical Aspect -- Living Conditions of Animals

The input shall not have the negative effects on the natural behavior or the bodily functions of the animals in the farm.

C.2. 6 Social and Economic Aspects

The senses of consumers: the input shall not cause the consumers to collide or disgust the organic products. The consumers may think that some input is unsafe to the environment or the health of human body, although this has not been confirmed in science. The problems of input (such as the genetic engineering problems) shall not disturb the overall feeling or opinions on the natural or organic products.

Appendix D

(normative appendix)

Animal house and activity space for different kinds of animals in the breeding of livestock and poultry

Table D.1 Livestock

Livestock species	Minimum live weight	Indoor Area	Outdoor Area
		m ² /head	m ² /head
Breeding and fattening bovid and equus animals	≤100kg	1.5	1.1
	≤200kg	2.5	1.9
	≤350kg	4.0	3.
	≥350kg	5	3.7
Dairy cattle		6	4.5
Breeding oxen		10	30
Sheep and goat		1.5 (adult sheep)	2.5
		0.35 (lamb)	0.5
Lactation sow (with piglet)		7.5 (adult sow)	2.5
Fattening pig	≤50kg	0.8	0.6
	≤85kg	1.1	0.8
	≤110kg	1.3	1
Weaned pig	≥40 days or ≤30kg	0.6	0.4
Breeding sow		2.5	1.9
Breeding boar		6	8.0

Table D.2 Poultry

Poultry species	Indoor Area (the available net area for animal)		Outdoor Area (activity area m ² /head)
	Animal quantity head/m ²	Nest	
Egg chicken	6	7 heads/nest or 120cm ² /head	4, the annual manure output (calculated by nitrogen)≤ ≤170kg/ha
Fattening poultry (fixed poultry housing)	10 (live-weight≤21 kg/m ²)		Meat chicken and galeeny 4 duck 4.5 turkey 10 goose 15 For all above poultry, the annual manure output (calculated by nitrogen)≤170 kg/ha
Fattening poultry (moveable poultry housing)	16 (live-weight≤30 kg/m ²)		2.5, the annual manure output (calculated by nitrogen) ≤170 kg/ha

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] 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
- [3] 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
- [4] 7 CFR Part 205, National Organic Program
- [5] CAN/CGSB-32.310-2006, Organic Production Systems General Principles and Management Standards
- [6] CAN/CGSB-32.311-2006, Organic Production Systems Permitted Substances Lists