Certification Standard for Organic Agricultural Products and In-conversion Agricultural Products and Allowable Substances in their Production, Processing, Packaging, Distribution, and Sale

These Standards were promulgated on Jun. 5, 2019 per Order Nung-Liang-Tze 1081069457A.

Chapter 1 Certification standards

Part I Common standards

1. Packaging

(1) Packaging methods shall be based on a principle of simplicity to avoid over-packaging, and the products shall be irreplaceable without the seal opened or destroyed.

(2) Packaging materials shall be biodegradable, recyclable or reusable. However, ordinary packaging materials may be used if the foregoing packaging materials are not available or not applicable.

(3) Packaging materials containing germicides, preservatives, fumigants, pesticides, migrating fluorescent agents, prohibited substances and other contaminating material materials are prohibited.

(4) Carbon dioxide and nitrogen used as packaging fillers and vacuum packaging are allowed.

(5) Printing inks and adhesives that are harmless to human health

shall be used whenever available.

(6) The storage of packaging materials shall be kept sanitary and clean to avoid contamination.

2. Storage

(1) Organic agricultural products and in-conversion agricultural products (both hereinafter referred to as organic products) shall be kept free from contaminations during storage. Storeroom shall be clean, sanitary, bright, capable of preventing the intrusion of hazardous pest and has no residue of harmful substances.

(2) Besides room temperature storage, the use of environment control like regulating the air, temperature and humidity in storage is allowed.

(3) When organic products and non-organic products are stored in the same storeroom, they shall be distinctively labeled and well separated to avoid commingling. Inventories shall be arranged in a way that is easily traceable and recognizable.

3. Transportation and delivery

(1) The transportation vehicles shall be thoroughly washed and kept clean before loaded with organic products and during the transportation to avoid contamination.

(2) Labels and relevant instructions on the outer packaging of organic products shall stay intact during transportation and delivery.

(3) When organic products and non-organic products are transported

or delivered together, the products shall be appropriately packaged and readily marked to avoid commingling products.

4. Records

(1) Relevant operation records, receipts and vouchers that are sufficient to prove the organic integrity of the products are required.

(2) Records of cleaning and management of the facilities, equipment and site shall be kept.

(3) When organic products and non-organic agricultural products are produced in the same production unit or are certified by more than one certification body, the operator shall implement autonomous management and keep the records of quantities produced, marks used and sales by organic status and certification bodies and accept the joint audit of different certification bodies.

5. Principles for using substances during production, processing, packaging, distribution and sale of organic products:

(1) Natural substances, except those prohibited in Chapter 2, are allowed.

(2) Synthetic chemicals, except those stipulated in Chapter 2, are prohibited.

Part II Processing, packaging and distribution

1. Scope

(1) Processing: Production procedures such as heating, drying, smoking, mixing, grinding, tableting, stirring, separation,

distillation, extraction, fermentation, pickling, dehydration, shelling, milling, or freezing of organic raw materials, or other processes sufficient to change the physical or chemical characteristics or capable of substantially transforming the original product.

(2) Packaging: Selection, washing, cutting, or packaging of organic raw materials that do not change the physical or chemical characteristics of the original product.

(3) Distribution:

a. Original packages or labels of an organic agricultural product and in-conversion agricultural product changed in a way that affects the organic integrity of that agricultural product.

b. Organic agricultural products or in-conversion agricultural products entrusted to another operator in production, processing, packaging or distribution procedure by an entruster or a client who is labeled as the operator in accordance with subparagraph 3 of paragraph 1 of Article 18 of Organic Agriculture Promotion Act.

2. Requirements for the staff: At least one process manager shall be designated to train for at least four hours per year or 12 hours every three years on the operation related to organic products. The manager shall be in charge of overseeing a majority of the production process and shall accompany the certification auditor throughout the audit process.

3. Environmental conditions

(1) There are no harmful gases, radioactive matter, sources of diffuse pollution, trash dumps, or environment for the potential propagation of harmful organisms near the factory (farm).

(2) The factory (farm) shall have sanitation and waste management plans in order to maintain the cleanliness of facilities, equipment and sites.

4. Harmful organism control

(1) The following preventive measures shall be taken with priority:

a. Elimination of habitats, food sources and breeding areas of harmful organisms.

b. Measures preventing harmful organisms from entering processing facilities and equipment.

c. Control of environmental conditions. For instance, control of temperature, humidity, illumination and ventilation to prevent the propagation of harmful organisms.

(2) Adoption of biological, physical, or mechanical control measures. For instance, the use of sex pheromones, insect trap, paper stickers, or solar disinfection.

(3) In case the above-mentioned measures to prevent or control harmful organisms are ineffective, substances in Item 1 (1) and 1 (2) of Chapter 2 may be used, or preventive plans of harmful organisms may be submitted to the certification body for the confirmation of regulatory compliance and shall not be implemented until approved. However, the use of radiation,

fumigant treatment, or preparations and substances containing genetically modified organisms (GMO) shall not be part of the plan. And the preparations and substances used shall not directly contact the organic raw materials and final products.

5. Production process

(1) The operator shall take necessary measures to prevent the mixing of organic and non-organic products, and shall avoid organic products in direct contact with the prohibited substances.

(2) Organic products are preferably produced at dedicated sites. If a production site must be used for producing non-organic products, its facilities, equipment, and areas shall be thoroughly cleaned before each treatment of organic products following the treatment of non-organic products. Organic products and non-organic products shall be produced separately in a sequence with adequate separation in-between.

(3) Biological, physical, or mechanical methods may be used to produce organic products. The selection of methods shall be based on its ability to preserve the natural ingredients and nutritional value.

(4) Radiation treatment, fumigants, or filtration equipment that may contain or produce hazardous substances may not be used in the production process.

(5) Any waste produced in the production process shall not have a negative impact on the ecological environment.

(6) The use of raw materials, food additives and other substances shall comply with the following clauses:

a. The same raw material shall not be simultaneously used in a mix of organic, conversion and non-organic source.

b. The substances listed in Item 1 (3) and 1 (4) of Chapter 2 are allowed but shall be used in a minimum quantity required for production and in accordance with relevant regulations.

c. The use of water and salt during the production process shall comply with drinking water quality standards and relevant sanitation standards.

d. Except the substances allowed in Item 1 (3) and (4) of Chapter 2, required by laws or seriously lacking in the product's nutrient content and allowed to be used by the certification body, the use of minerals (including trace minerals), vitamin, amino acid and pure substances isolated from plant and animal is prohibited.

e. The use of raw materials, food additives, or other substances containing GMO is prohibited.

f. When organic raw materials are available, non-organic raw materials shall not be used. If a particular organic raw material is not available, other organic raw materials with the same function shall be used. Non-organic natural raw materials can only be used when the organic raw materials with the same function are not available. As for the

availability of organic raw materials, it shall be determined by the certification body based on the formula and website information provided by the operators. Non-organic natural raw materials can only be used after the certification body has confirmed their compliance with the regulations.

6. The following methods are used to calculate the organic raw material content:

(1) Solid products: Divide the total weight of the organic raw materials in the product (excluding water and salt) by the total weight of the raw materials (excluding water and salt).

(2) Liquid products: Divide the total volume of the organic raw materials in the product (excluding water and salt) by the total volume of the raw materials (excluding water and salt). If the product consists of a reconstituted liquid concentrate, the organic raw material content shall be calculated considering the concentration of organic content in the liquid concentrate.

(3) Products consisting of solid-liquid-gas mixtures: Divide the total weight of the organic raw materials in the product (excluding water and salt) by the total weight of the raw materials (excluding water and salt).

(4) Expressions shall be rounded to the nearest integer.

Part III Crops

1. Conditions for the production environment:

(1) Operators shall hold the ownership of the production land or the

right to manage and also conform to the following conditions in their production:

a. Production land: An adequate contamination prevention measure like fencing or buffer zone shall be in place to prevent organic cultivation from being contaminated.
b. Mushroom farm: A farm shall take necessary measures to prevent the drifting or influx of prohibited substances.
c. For wild plants and their parts that grow naturally in natural territories, forests and agricultural zones, gathering them is deemed as an organic way of production, given that such gathering activities would not impact the stability of natural habitats or preservation of local species.

(2) Operators shall properly manage the production materials used to maintain or improve the composition in organic matters of soil. All production materials and application methods that could lead crops, soil, or water sources to be contaminated by heavy metals or prohibited substances shall be avoided.

(3) Proper measures of soil management and water-and-soil conservation shall be implemented on the production land to maintain water-and-soil resources, ecological environment and biodiversity, and ensure the sustainable utilization of resources.

(4) For perennial plants, it is preferable that cover crops are planted in the surrounding area or the habitat of natural enemies of pests be kept. This prevents soil from being exposed and increases

local bio-diversity.

(5) This Chapter only applies to crops that are cultivated in a soil-based environmental system. Plants rooting in mineral solutions or inert medium like perlite, gravel and mineral cotton filled with mineral nutrient solutions are categorized as hydroponic cultivation and thus not eligible for organic certification application.

(6) Sprouts or sprouting vegetables that are cultivated in pure water, with no substances added, are not categorized as hydroponic cultivation and thus eligible for organic certification application.

2. Farming area of short-term crops requires a two-year conversion period before it can be certified organic. Long-term crops (like perennial fruit trees or tea trees) and gathering operation require a three-year conversion period. During the conversion period, organic cultivation and gathering shall be performed in accordance with this Chapter. Conversion periods are subject to extension at the discretion of the certification body. In case the operator submits the supporting data (including work record, material record, harvest record, product test report and other description documents) of implementing organic cultivation as per regulations of this Chapter or the proof of eco-friendly farming, the certification body may shorten the conversion period on the basis of its observation.

3. Parallel production: When organic and non-organic crop are cultivated at the same time, the organic crops, production materials and products

shall be entirely separated from non-organic ones. A proper identification and signifying system shall be implemented, with production records of both segments kept separately and made available to certification bodies for review.

4. Crops, varieties and propagative materials

(1) Under the principle of biological and genetic diversity, breeding preference shall be given to the crop varieties with strong environmental suitability and pest resistance in the way of organic cultivation.

(2) Genetic modification on seeds, seedlings or the whole or partial plant (hereinafter referred to as propagative material) that can be used for propagating is prohibited.

(3) Organic propagative materials that have been produced for at least one generation as per the regulation of this Chapter or at least for two years in the case of perennial crops may be used. In case there is no organic propagative material, those not treated by synthetic chemicals as well as botanical extracts or mineral material harmless to human health (hereinafter referred to as untreated) can be used. However, this doesn’t apply to those allow to be treated by synthetic chemical as per the regulations of this Chapter. If organic propagative materials or those untreated cannot be obtained in the aforementioned circumstances, the use plan shall be submitted to the certification body, and then general commercial propagative materials can be used only after if the

unavailability is confirmed by the certification body.

(4) For the production of sprouts and seedlings, only organic seeds can be used.

5. Weed, plant disease and pest management

(1) Weed control

a. Preventative control: Reducing the amount of weed seeds in mixture with seeds for cultivation and the contamination of agri-machinery and irrigation water to inhibit the spread of weed in fields.

b. Cultural control: Rotating between wet and dry cultivation, different crops, or different planting intervals.

c. Weed population control: Applying high-density plantation, sowing, transplanting or plant selected autogenic weeds or other grass varieties and green manure crops to maintain the grassland condition of the land.

d. Mulches and cover crops:

(a) Using cut weeds (unflowered or without seed sprouted), remainders of crops, or various allowable biological materials as mulches.

(b) Using polyethylene, polypropylene and other polycarbonate-based plastic mulches.

(c) Planting green manure crops during fallow periods or conducting sod cultivation; propagating Azolla in wet paddy fields.

(d) Those who adopt this method shall not use crop residues and bio-materials containing pesticides, radioactive substances, or excessive heavy metals as well as polyvinyl chloride. Those who use plastic mulches shall clean and move out the used plastic mulches, and burning on site is prohibited.

e. Weeding: Manual weeding, mechanical plough, drying, flooding, etc.

f. Grazing poultry and livestock: Grazing poultry and livestock on the field for weed control.

g. Allelopathy: The use of any direct or indirect chemical effect of secondary metabolites released by non-GMO plants to suppress the germination, growth or development of themselves or neighboring plants.

h. Microbial herbicide: Application of non-GMO bio-organism or materials based on pathogenic microorganisms (e.g. fungus) of weeds.

(2) Plant disease and pest control

a. Plowing control:

(a) Crop rotation or intercropping of non-host crops.

(b) Mix-cropping with synergetic crops.

(c) Repellent plants.

(d) Fence plants.

(e) Using pest-resistant cultivars that are non-GMO.

(f) Using predatory animals (such as chicken and duck).

b. Physical control:

(a) Using high-temperature or solar energy for soil sterilization, but stubble burning in the field is not allowed.

(b) Using materials containing no synthetic chemical like paper bag, plastic cloth and non-woven fabric bag as protection.

(c) Wrapping the stem bottom of fruit trees with gunny bag, straw to prevent long-horned beetle.

(d) Setting up ditches or physical traps.

(e) Using colored paper stickers and moth-attracting lamp.

(f) Selecting seeds by water (such as salt solution and warm water) or treatment with high or low temperature.

c. Biological control:

(a) Releasing parasitic or predatory natural enemies of the pest insects.

(b) Non-GMO formulation of microorganism.

(3) The resources inside the farm shall be given preference for cyclic utilization. The plant protection material obtained outside the farm or commercialized one shall be reviewed and approved by the certification body, and the commercialized material shall obtain the agro-pesticide permit pursuant to Agro-pesticides Management Act and the relevant regulations or shall be

promulgated as non-controlled agro-pesticides.

(4) The food material of natural substances stipulated in Item 5 (1) of Part I in this Chapter may be used as management substances of diseases, insects and weeds, and other substances shall conform to the stipulation in Item 2 (1) in Chapter 2.

(5) To safeguard the public interest, if there is any synthetic chemical which is not included in Items 2 (1) in Chapter 2 but has to be used for the overall epidemic prevention and control work required by the government, the operator shall report the area, drugs and method of implementation to the certification body, who will define the controlled area and period, during which the controlled products shall not be sold as organic.

6. Soil and fertility management:

(1) Analysis of soil samples may be timely conducted to understand the physical and chemical properties of soil and fertilization condition to serve as a basis for fertility management and rationalization fertilizing. The measures used shall be capable of preventing the loss of nutrients and avoiding the accumulation of heavy metal and pollutants.

(2) Proper crop rotation, intercropping, timely fallowing, mulching with plant residues and in-situ tillage shall be adopted to maintain the regional biodiversity and keep the soil fertility.

(3) The resources inside the farm shall be given preference for cyclic utilization, the material or commercialized fertilizer obtained

outside the farm shall be reviewed and approved by the certification body, and the commercialized fertilizer shall obtain the fertilizer registration certificate pursuant to the Fertilizer Management Act.

(4) The direct use of the urine or feces of human, poultry or livestock is prohibited. If those of poultry or livestock must be used, they shall be fully composted with fermentation.

(5) The use of chemical fertilizers (including trace elements) and microorganism or composite fertilizers containing chemical fertilizers are prohibited. However, the trace elements conforming to the stipulation of Item 2 (2) in Chapter 2 can be used when the soil or plant that has been diagnosed as lacking trace elements and a use plan has been submitted to and approved by the certification body.

(6) The soil fertility management material shall conform to the stipulation of Items 2 (2) in Chapter 2.

7. Growth regulation, harvest, preparation, storage and packaging:

(1) Expose to irradiation and fumigants is prohibited during crop cultivation, harvest and postharvest handlings.

(2) To ensure the organic products are free from any contaminants from non-organic products, harvesting and postharvest handlings, preparation, storage and packaging shall be separated from conventional agricultural products.

(3) Operators that use self-produced organic products as processing

raw material may apply for the certification of self-produced processed agricultural products. Harmful organism control, production process and the method of calculation of organic raw materials content thereof are require to be in accordance with the Item 4 to 6 of Part II in this Chapter.

(4) Growth regulation techniques including and not limited to trimming, pruning, grafting, girdling and root pruning are allowed.

(5) Preparation and storage techniques including and not limited to temperature are allowed.

(6) Growth regulation, harvesting, preparation, storage and packaging materials shall comply with the stipulation of Item 2 (3) in Chapter 2.

Part IV livestock Products

1. General Principles

(1) Organic livestock production shall comply with related rules in this Chapter.

(2) Livestock production shall proceed without affecting natural ecological balance, and shall contribute to the organic agriculture system in the following aspects:

a. To improve and maintain soil fertility;

b. To protect plant communities and ecology with adequate pasturage;

c. To maintain biodiversity and promote plant-animal and

animal-soil interdependence;

d. To increase the diversity of the agricultural production system.

(3) Organic livestock production shall follow the natural behavior of animals and provide necessary production conditions such as access to land, sunlight and fresh air.

(4) Livestock shall be provided with enough organic corps and feeds.

(5) The number of livestock shall consider the following factors: feeds production, adaptability of livestock to the local environment and impact on the environment, nutrition balance, as well as livestock health.

(6) The management of organic livestock shall base on the following principles:

a. Reproduction by natural breeding and artificial insemination;

b. Protection of animal health and welfare;

c. Reduction of stress;

d. Paying attention to biosecurity;

e. Prohibition of use of chemically synthesized allopathic animal drugs and antibiotics unless authorized by a veterinarian.

2. Definitions

(1) Crop land: land that grows crops used for livestock feeds.

(2) Pasture land: land for pasture to grow or land for livestock to pasture.

(3) Outdoor access area: open space, other than animal housing, for animal daily activities and exercises.

(4) Animal replacement: to bring in livestock from outside of the farm because of sales, natural selection, natural disaster, serious illness, etc.

(5) Organic feeds: including crops, processed products, by-products, matching feeds, animal source feeds, etc. The feeds shall comply with related requirements in this Chapter or in Regulations for Managing and Reviewing Imported Organic Agricultural Products.

(6) Phytotherapeutic: therapeutic methods using plant extracts and essences.

(7) Homeopathic: therapeutic methods using diluted remedies to induce autoimmune in patients to cure disease. The remedies used shall not be chemically synthetic medicines or antibiotics.

(8) Allopathic: therapeutic methods using substances that may cause problems, such as drug resistance, chemical derivatives, or drug residual, to directly eliminate symptoms of a disease.

3. Conversion

(1) The conversion period for the land intended for feeding crops or pasture shall be at least two years.

(2) The conversion period for pasture, open-air runs and exercise areas used by non-herbivore species shall be at least one year.

(3) Once the land has reached organic status and livestock from a

nonorganic source is introduced, and if the products are to be sold as organic, such livestock shall be reared according to the following compliance periods:

a. Livestock for milk production: six months;

b. Livestock for meat production:

(a) Not less than six months for calf, goats and pigs;

(b) Not less than 12 months for beef cattle;

(c) Not less than 10 weeks for poultry.

c. Six weeks for layer;

d. Others: over three quarters of their production life cycle.

(4) The conversion of the land intended for feeding crops may occur simultaneously with that of the existing livestock fed mainly with products from the unit.

4. Parallel production

(1) Where operations include both organic and conventional livestock production on the same farm, organic crops, livestock, materials and production shall be separated from the non-organic production area, and proper distinguishing and marking system shall be established.

(2) Production records for organic and non-organic production shall be maintained separately.

(3) If organic-prohibited materials contaminate the land or livestock of organic operation, the farmer shall report to the certification body, and the land or livestock shall return to conversion period.

5. Origin of animals

(1) Livestock shall be managed in accordance with this Chapter from the date of birth, and organic livestock reared shall be from the organically-managed female livestock.

(2) Breeding female livestock from conventional farms may be allowed with a yearly maximum of 10% of the same species of breeding female livestock on the farm.

(3) Under any of the following situations with approval by certification bodies, the maximum quantity of breeding livestock from conventional farms may increase to 40%:

a. Serious natural disasters or accidents causing more than 25% loss of livestock;

b. More than 30% of expansion on the farm;

c. Change of species of reared livestock on the farm.

(4) Breeding male livestock can be brought from non-organic farms, and may be included in the organic production immediately.

(5) Livestock farms during conversion period may, when organic livestock is not available, purchase the following livestock from non-organic farms:

a. Less than two days old chick for meat production;

b. Less than 12 weeks old pullets or ducks for the egg production;

c. Less than two weeks old for other poultry;

d. Weaning livestock that meets animal health requirements.

(6) Replacement or expansion of livestock other than breeding livestock shall be approved by certification bodies. If the livestock is brought from non-organic farm, it cannot be sold as organic products unless it complies with Item 3 (3) and 5 (5) of Part IV in this Chapter. The total number of animals on the farm after replacement or expansion shall not exceed the maximum capacity of the farm.

6. Livestock management

(1) Feeds and nutrition

a. Organic feeds and feed additives shall be used for animal nutritional needs.

b. The use of organic feeds and feed additives shall be approved by certification bodies, and the processing of these feeds shall be clearly separated from that of non-organic feeds.

c. Feed materials from animal origin shall be approved by certification bodies, and can only be used if they comply with the stipulation of Item 3 (2) in Chapter 2.

d. The following alternative materials for forage quality improvement could be used after they are approved by certification bodies:

(a) Probiotics and enzyme;

(b) By-products of food industry;

(c) Derivative plant products through fermentation;

(d) Non-GMO material for forage quality improvement.

e. Ruminants shall be fed at least 50% of the dry matter in daily rations in the form of roughage, forage or silage.

f. The ratio of organic feeds for ruminants and non-ruminants shall be over 85% and 80%, respectively. The feeds from the conversion land are permitted with a maximum of 30% of the dried matter. If the feeds from the conversion land are owned by the same farmers, these feeds are permitted with a maximum of 60% of the dried matter. The above ratio does not apply to the livestock reared prior to the conversion of pasture land and simultaneously converted with the land. However, the organic feeds in daily ration shall be over 75% of the dried matter, and shall be non-GMO products.

g. Livestock cannot be sold as organic products, if the ratio of organic feeds does not comply with Item 6 (1) f. of Part IV in this Chapter.

(2) Management

a. Based on the natural behavior of animals, the earliest weaning time is 90 days for calves, 60 days for sheep and goats, and 42 days for piglets.

b. The young mammal species shall be fed with organic milk from the same species. Under special situations with approval by certification bodies, non-organic milk without containing antibiotics, chemically synthesized compounds or milk-based substitute can be used.

c. During organic livestock production, the following biotechnologies are prohibited:
   (a) Embryo transfer technique;
   (b) Hormones to synchronize estrous cycles for breeding, with the exception of therapeutic use for reproduction interference of individual livestock under veterinary prescription;
   (c) Use of genetically modified breed or strain of animals.

d. Temporary indoor holding space shall be provided under the following situations:
   (a) Serious weather conditions;
   (b) Reproduction period:

   Calf and lamb: from birth born to the seventh day after weaning;

   Cow and ewe: from the last one fifth of pregnancy period to parturition;

   Piglet: from birth to weaning;

   Sow: from three months in pregnancy to weaning of the piglets.
   (c) Last part of the fattening period: three months before marketing or one fifth of life cycle, whichever is less;
   (d) Potential damage to health, safety and welfare of livestock;
   (e) Soil or water being polluted.

e. Photoperiods of laying hens shall not exceed 16 hours per day.

f. Physical alteration of organic livestock to promote their welfare and safety is allowed but shall be performed at the stage of young animal by the experienced staffs in a manner that minimizes pain and stress. The following procedures for physical alteration shall be conducted under the permission of certification body:

(a) Tooth clipping (not exceeding the one third of the top) and tail docking for pigs;

(b) Beak trimming for young poultry before 10-day-old, not exceeding the one third of the tip;

(c) Castration and dehorning for young livestock.

(3) Living conditions

a. All animals shall be cage-free, and shall have access to outdoor exercise areas. Adequate space shall be provided to maintain living conditions that accommodate the health and natural behavior of the animals.

b. A pasture land or an outdoor exercise area shall be provided for herbivores.

c. Livestock with social recognition abilities shall not be confined individually, except in conditions that are approved by certification bodies, such as sickness, parturition, breeding male or young animals.

d. The living conditions shall be adequate for animal growth or production in terms of providing shade, cover, shelter, exercise areas, fresh air, sunlight and specific pathogenic free environment.

e. Animal growth or production area shall have proper protection from outside predators to ensure safety of animals.

f. The facilities of outdoor production area shall comply with the following principles:

(a) To prevent contamination of the prohibited materials from the surrounding area by applying necessary protection;

(b) To provide proper cover or shelter to prevent animals from serious weather conditions, if animal housing could not provide free access to indoor;

(c) To have suitable water sources in the outdoor production area for waterfowls;

(d) To prevent damage to vegetation and soil due to overgrazing by rotating grazing or reducing stocking density. The requirements of minimum outdoor production area for each animal are listed below:

Animal	**Outdoor living area**
Dairy cow	4 m^2/head
Beef cattle	a. Less than 100 kg: 1.5 m^2/head b. From 100 kg to less than 200 kg: 2.5 m^2/head c. From 200 kg to less than 350 kg: 4.0

	m^2/head d. 350 kg and above: 5.0 m^2/head
Bull for breeding	20 m^2/head
Sheep or goat	a. Less than 20 kg: 0.5 m^2/head b. 20 kg and above: 2.5 m^2/head
Farrowing sow and piglet within 42-day-old	2.5 m^2/nest
Pig	a. Less than 30 kg after weaning: 0.6 m^2/head b. From 30 kg to less than 60 kg: 0.6 m^2/head c. From 60 kg to less than 100 kg: 0.8 m^2/head d. 100 kg and above: 1.0 m^2/head
Boar for breeding	8 m^2/head
Sow for breeding	1.9 m^2/head
Laying hen (during the laying period)	4 birds/m^2
Broiler (over 28 days)	10 birds/m^2
Turkey	2 birds/m^2
Duck	3 birds/m^2
Goose	3 birds/m^2

g. The housing of livestock shall provide a clean, comfortable and sufficient space that animals can lay down or rest; and fulfill the following requirements:

(a) Livestock have free access to clean water and feed;

(b) The housing structure shall provide proper insulation,

ventilation and natural light;

(c) The housing shall, based on species and group sizes, have proper resting space and sufficient access to outdoor space for livestock, and shall have perches for land fowls;

(d) The housing and equipment shall be routinely cleaned and sanitized only using materials complied with Item 3 (1) in Chapter 2. Excrements and uneaten feeds shall be routinely removed to ensure environmental hygiene;

(e) The materials used for cleaning and/or sanitation of housing and equipment shall not be hazardous to animals and human;

(f) The bedding and ground for animal resting shall be kept dry. If there is a possibility that livestock may eat the bedding materials, the bedding material shall comply with rules in this Chapter;

(g) The stocking density shall depend on animal types, breeds and age, and consider their comfort and welfare. The minimum requirements of housing areas for each animal are listed below:

Animal	**Housing space**
Dairy cow	4 m^2/head
Beef cattle	a. Less than 100 kg: 1.5 m^2/head b. From 100 kg to less than 200 kg: 2.5 m^2/head c. From 200 kg to less than 350 kg: 4.0

	m^2/head d. 350 kg and above: 5.0 m^2/head
Bull for breeding	10 m^2/head
Sheep or goat	a. Less than 20 kg: 0.35 m^2/head b. 20 kg and above: 1.5 m^2/head
Farrowing sow and piglet within 42-day-old	7.5 m^2/nest
Pig	a. Less than 30 kg after weaning: 0.6 m^2/head b. From 30 kg to less than 60 kg: 0.8 m^2/head c. From 60 kg to less than 100 kg: 1.1 m^2/head d. 100 kg and above: 1.3 m^2/head
Boar for breeding	6 m^2/head
Sow for breeding	2.5 m^2/head
Laying hen (during the laying period)	6 birds/m^2
Broiler (over 28 days)	10 birds/m^2
Turkey	2 birds/m^2
Duck	10 birds/m^2
Goose	5 birds/m^2

h. The pasture management for grazing shall comply with Part III in this Chapter.

(4) Health care

a. Selection of organic livestock shall be those breeds or strains that are adapted to local conditions and resistant to diseases

and parasites.

b. Housing and pasture land shall conform to anti-epidemic conditions so as to prevent an outbreak and spread of diseases. In addition, there shall be adequate space.

c. Legal and necessary vaccines are permitted.

d. The producer of an organic livestock operation shall be subject to the following requirements:

   (a) Animal drugs shall not be used in the absence of illness, except vaccine;

   (b) Chemically synthetic parasiticides shall not be used on livestock for meat products, or routinely used on other livestock;

   (c) Injured or sick animals shall be treated immediately to prevent suffering. If necessary, the animal shall be isolated in a suitable housing.

e. In organic farms, the use of animal drugs to treat animals shall comply with the following principles:

   (a) Effective phytotherapy, homeotherapy, vitamins and trace minerals shall be used preferentially;

   (b) If the use of the above treatments is not effective in reducing suffering or stress to the animal, chemically synthesized allopathic animal drugs or antibiotics may be used under the prescription of a veterinarian;

   (c) The use of chemically synthesized allopathic animal

drugs or antibiotics for preventive treatments is prohibited.

f. If organic livestock is treated with chemically synthesized allopathic animal drugs, the following rules shall apply:

(a) The withdrawal period of such medical products shall be twice the legal withdrawal period and no less than 48 hours;

(b) If the productive lifecycle of animal is more than one year, the treatment shall not be more than two courses within one year;

(c) If the productive lifecycle of animal is less than one year, the treatment shall not be more than one course;

(d) Livestock for meat products shall not have any chemically synthesized allopathic treatment.

Livestock not complying with the above rules shall not be sold as organic products. However, animals undergoing conversion period and approved by certification bodies are not included.

7. Pest control and animal manure management

(1) Pest control shall adopt preventive approaches, such as biological control or proper pasture rotating plan. If the preventive apporaches are not effective, non-chemical methods shall be in preference of using. Only when the above approaches fail to prove effective control, techniques and materials complying with

this Chapter can be permitted to be used.

(2) Organic farms shall have animal manure management plan, which includes manure collection, processing and usage.

(3) The collection, processing and usage of animal manure shall comply with the following rules:

a. Not to pollute crops, soil, water and environment;

b. Not to adversely affect the growth of crops;

c. Not to pose risks of weed spread, pest outbreak or jeopardizing environment hygiene;

d. Not to apply burning or any techniques prohibited in this Chapter;

e. Composting process shall follow all standards related to composting and use only the materials allowed in this Chapter.

8. Transportation, slaughter, collection and packing of livestock products

(1) The transportation and slaughter of livestock as well as collection of livestock products shall comply with the animal welfare.

(2) Before or during transportation, use of any synthesized tranquilizer or electrical goads is prohibited.

(3) To ensure that organic livestock products are not mixed with or contaminated by non-organic products, the collection, processing, storage and packaging of organic livestock products shall be separated from non-organic livestock products.

(4) Packaging, storage, transportation and delivery of livestock

products shall comply with related rules in this Chapter.

9. Materials permitted to be used in production of organic livestock products shall comply with the requirements stated in Item 3 (1) in Chapter 2.

10. Production records and related documents

Organic livestock producers shall fill up detailed and accurate records based on practical operation, and keep all related trade documents. The records shall be clear, accurate and traceable, and shall include the following items:

(1) Basic information, including the name and address of farm, name, address and telephone number of producer, certified area and registration number, certified livestock products and name of the certified bodies;

(2) Facility map indicating the sites of livestock production, crop production and storage shall include the following items and be routinely updated:

a. Production area, location, farm address and land number;

b. Roads, storehouses, buildings, surrounding vegetation and major topographical marks and surface features to be used to identify the farm;

c. Types of livestock and feed crops;

d. Rivers, wells, trenches and other water sources within the surrounding;

e. Pollution blocking facilities and buffering zone;

f. Description of crop types in neighboring areas.

(3) Organic livestock production plan:

a. Details of all organic livestock, including species, origin, quantity and dates of introduction;

b. Records of animal drugs usage, including systems of livestock identification, quantity, diagnosis, date and types of drugs used, methods of management and date of sale;

(4) Sources, characteristics, quantities, usage and proof of purchase of raw materials, which include:

a. Materials for livestock production;

b. Materials for crop production (including seeds and seedlings);

c. Feeds;

d. Animal drugs;

e. Materials for pest control;

f. Other treatment materials.

(5) Sale records of livestock products, including:

a. Types, quantities, slaughter weight or age, destination and identification of livestock products;

b. Name of buyer and sale receipts.

(6) Other processing records, which include those of slaughtering, cutting, packaging, labeling, storage and transportation of products;

(7) Cleaning records of slaughtering, cutting, processing, storage and

transportation equipment as well as prevention records of harmful pests in slaughterhouses, cutting and packaging plants;

(8) Records of customers or consumers complaints about organic products;

(9) Other records related to traceability of product organic integrity.

Part V Aquatic Plants

1. Conditions for the production environment

(1) The cultivation or harvest areas shall have adequate fencing or buffering zones to prevent pollution from outside thus avoiding the aquatic plants of organic cultivation from being contaminated.

(2) The cultivation water quality shall meet the requirements set forth by the Environmental Protection Administration, Executive Yuan, in the Surface Water Classifications and Water Quality Standards as first-class aquatic production use water.

(3) The heavy metal contents in the cultivation bottom soil shall be lower than the standard of soil pollution control. For the cultivation soil with heavy metal contents exceeding the monitoring standard, the certification organization shall periodically track it while conducting renewal audit.

(4) The cultivation or harvesting activities shall not damage the environmental resources to ensure sustainable use of resources.

2. Outdoor areas for the production of aquatic plants require a two-year conversion period before it can acquire organic certification. During the conversion period, organic cultivation needs to be implemented in

accordance with this Chapter.

3. Seedlings

(1) The use of any genetically modified seedlings is prohibited.

(2) During the seeding cultivation process, nonsynthetic chemical shall be used.

(3) Conventional seedlings can be used only when certified seedlings cannot be obtained.

(4) The use of synthetic chemicals for sterilization at the site of seedling facilities is prohibited, except the synthetic substances permitted in this Chapter.

4. Weeds control

(1) Weeds shall be adequately controlled by physical or biological prevention methods while no synthetic chemical is permitted to be used.

(2) The use of any GMO's preparations or materials is prohibited.

5. Fertility management

(1) Analysis of water samples shall be timely conducted to understand the fertilization condition to serve as a basis for fertility management.

(2) The use of chemical fertilizers (including microelements) and of microorganism preparation materials and compound fertilizers which are blended with chemical fertilizers or containing pesticides are prohibited.

(3) Mineral fertilizer shall be used in its natural composition, and

there shall be no chemical processing to increase its solubility or effectiveness.

(4) The use of any GMO's preparations or materials is prohibited.

6. Pest control

(1) The use of synthetic chemicals or plant extract harmful to human health or mineral materials is prohibited, except the synthetic substances permitted in this Chapter.

(2) The use of any GMO's preparations or materials is prohibited.

7. Cropping, preparation, storage and packaging

(1) After cropping, the use of additives or synthetic chemicals is not allowed for the processing, nor is radiation processing allowed.

(2) To ensure the organic aquatic plants are free from any mixing or contamination by the non-organic aquatic plants, the cropping process and preparation, storage and packaging after the cropping shall be separated from the handling of general aquatic plants.

(3) The aquatic products business operators that use their self-produced organic aquatic products as raw materials for primary processing may have their processing procedure certified at the same time, of which the harmful biology prevention, processing procedure and the calculation method for organic matter contents shall be in accordance with Item 4 to Item 6 of Part II in this Chapter.

8. The substances used for aquatic plant production shall conform to the stipulation of Item 2 in Chapter 2.

Part VI Aquatic Animals

1. General Principles

Organic aquaculture production shall proceed without affecting natural ecological balance, and shall comply with the animal welfare and shall adopt the basic production principle on the healthy and well-managed environment.

2. Definitions

(1) Life cycle: the sequence of life stages that an animal undergoes from birth to the desired market size.

(2) Organic feeds: including crops, processed products, by-products, formula feed, animal feed sources origin.

(3) Phytotherapeutic: therapeutic methods using plant extracts and essences for improving animal health.

(4) Homeopathic: therapeutic methods using diluted remedies to induce autoimmune of animals to cure disease.

(5) Allopathic: therapeutic methods using substance or antibiotics to directly eliminate symptoms of diseases.

3. Organic conversion period

(1) The conversion period of the organic production unit from non-organic aquaculture shall be at least one life cycle of the organism or 12 months from the date operator/producer apply for organic certification to its certification bodies. However, provided the operators/producers had adopted organic aquaculture production before applying for organic certification

and with relevant supporting documents, they may apply to the certification bodies to shorten the conversion period.

(2) During a conversion period, the production process for organic aquaculture cannot be converted to non-organic aquaculture.

(3) When the organic producers want to discontinue organic aquaculture certification during the conversion period, they shall inform the certification bodies to withdraw certification procedures.

4. Parallel production

(1) The organic aquaculture production units shall be obviously separated from non-organic production areas.

(2) Production records for organic and non-organic production shall be maintained separately.

5. Origin of the aquatic animals

(1) Organic aquatic animals shall be raised and managed in accordance with this Chapter from birth, and the seedlings shall come from organic production of broodstock or wild populations.

(2) Prohibited genetic resources are as follows:

a. GMO;

b. Polyploid;

c. Hybridization;

d. All-female aquaculture.

(3) Non-organic seedlings can be used before 1 January 2023, but those which are over two thirds of the life span shall conform to

the production management stipulated in this Chapter.

(4) Broodstock breeding

a. Broodstock breeding is subject to at least one complete cycle of organic production, and shall ensure the organic management practices in accordance with this Chapter at least 12 months before the hatching.

b. The management plan for broodstock breeding shall be established and includes the following:

(a) Production unit (batch) management plan;

(b) Conversion timetable and management practices.

c. The requirements for organic fry (eggs): a clear separation to prevent cross-contamination or mixed with other substances.

6. Organic Aquatic Animal Management

(1) Feeds

a. The use of organic feeds and feed additives shall comply with this Chapter, and imported organic feed shall comply with Regulations for Managing and Reviewing Imported Organic Agricultural Products.

b. When producers cannot get commercially organic feed and feed additives the certification bodies may certify a viable alternative program of homemade organic feed production, the raw material origins of the feed and feed additives required for the program shall be provided by producers and the production processing shall be obviously separated with

non-organic feed ingredients.

c. Feed for aquatic animals shall meet the following requirements:
   (a) The sources are restricted from a sustainable supply of marine organisms or by-products of organic farming;
   (b) The fishmeal in animal feed shall not exceed 20%.

d. The following substances are prohibited in the diet for organic aquaculture:
   (a) Synthetic growth-promoting hormone, hormones or attractant;
   (b) Synthetic antioxidants or preservatives;
   (c) Synthetic amino acids;
   (d) Artificial, synthetic or similarly natural pigments;
   (e) Non-protein nitrogen;
   (f) Animal excrement;
   (g) GMO or its products and raw materials;
   (h) Livestock and their wastes.

(2) Disease prevention

a. Selection of organic species shall be those breeds or strains that are adapted to local conditions and resistant to diseases and parasites.

b. The following materials shall be used to disinfect water bodies and pond bottom in order to prevent the occurrence of aquatic animal diseases:

(a) Quicklime (calcium oxide);

(b) Zeolite powder;

(c) Hydrogen peroxide;

(d) Sodium hypochlorite (antiformin);

(e) Acetic acid;

(f) Citric acid;

(g) Ethanol;

(h) Probiotics;

(i) Tea-seed cake;

(j) Tobacco (nicotiana).

c. Legal and necessary vaccines are permitted.

d. The producers of the organic aquaculture operation shall comply with the following requirements:

(a) Not to use animal drugs, except vaccine, in the absence of illness;

(b) For an aquatic animal that is injured or sick, to have it be treated immediately, if necessary put in isolation with a suitable living unit.

e. In organic farms, the use of animal drugs to treat aquatic animals shall comply with the following principles:

(a) Therapeutic effective phytotherapeutic and homeopathic products shall be used preferentially;

(b) The use of chemically synthesized allopathic animal drugs or antibiotics for preventive treatments is

prohibited.

(c) If the use of above products is not effective in combating illness or injury, chemically synthesized allopathic animal drugs or antibiotics may be used under the responsibility of a veterinarian; and the following rules shall apply:

i. The withdrawal period of such medical products shall be twice the legal withdrawal period.

ii. When processing drug treatment, the organically sick aquatic animals shall be isolated.

(3) Living environment

a. The farm location shall consider the vicinity environment to maintain its ecological balance and biodiversity.

b. Organic farming areas shall be distinctly separated from non-organic farming areas. More than two meters buffer zone shall be retained in the land-based aquaculture; where the buffer zone in marine cages shall be kept more than 80 meters with the conventional farms. However the surrounding of the farms are subject to the certification bodies to adjust the buffer distance for the purpose of isolation.

c. The drainage water from the farm cannot affect the ecological environment and the water quality shall comply with the relevant regulations of the waste water.

d. The material used in the construction and management is not allowed to jeopardize the living organisms or environmental substances.

(4) Aquaculture management

a. Operators shall take adequate measures to prevent escapes of aquatic animals as not lead to locally adverse environmental impacts, and simultaneously prevent other animals getting into the organic aquaculture farms or prey on organically aquatic animals, and shall prevent cultivated species from entering natural water bodies.

b. Polyculture of aquatic organisms is highly recommended to maintain biodiversity.

(5) Production records and related documents:

Organic aquaculture producers shall fill up detailed and accurate records based on practical operation, and keep all related trade documents. The records shall be clear, accurate and traceable, and shall include the following items:

a. Basic information, including the name and address of farm, name, address and telephone number of the producer, certified area and registration number, certified aquaculture products and name of the certified bodies, etc.

b. The management record of organic aquaculture animal production:

(a) The production records of all certified organic aquatic

animals including the species, source, quantity and entry date, water quality monitoring information, etc.;

(b) Records of the drug administration for organic aquatic animals including drugs identification, quantity, diagnosis, date and types of medicine used;

(c) Methods of management and date of sale for aquaculture products.

c. Location diagram of organic aquaculture production, feeds variety and storage shall include the following items and routinely updated:

(a) Farm information and site registration number (fishing rights information);

(b) Roads, storehouses, buildings, surrounding vegetation and major topographical marks and surface features, or offshore/onshore markers to be used to identify the farm;

(c) Species of aquatic animals or types of feed;

(d) Rivers, wells, trenches and other water sources;

(e) Pollution blocking facilities and buffering zone;

(f) Conditions and types of crops in neighboring areas.

d. The records for sources, characteristics, quantities, usage and proof of purchase of raw materials from all the following items as feeds, veterinary medical products, materials for pest control and other processing materials shall be preserved.

7. Harvest, transportation and slaughter of aquatic animals

(1) When processing harvest, the operator shall take measures as peaceful as possible to reduce the stress and adverse effect on organic aquatic animals.

(2) The use of any synthesized tranquilizer/sedatives is prohibited either prior to or during transport.

(3) There shall be someone responsible for the health of organic aquatic animals during transportation.

(4) The water and stocking density shall be consistent with the needs of aquatic animals during transportation.

(5) The transportation distance and frequency shall be reduced to a minimum.

(6) When slaughtering, humane methods or appropriate applications of physical anesthesia such as the percussion and electric shock shall be used to lead aquatic animals to a coma immediately.

(7) Avoid organically aquatic live animals having direct or indirect contact with the dead or slaughtered ones.

(8) To ensure organic aquatic animals/products not mixed with or contaminated by non-organic animals/products, the collection, processing, storage and packaging of organic animals/products shall be separated from non-organic aquatic animals/products.

Chapter 2 Substances allowed to be used in production, processing, packaging, distribution and sale

1. Processing, packaging, distribution and sale

(1) Substances allowed to be used in harmful organism control

Substances	Conditions
1 Plant infusions or extracts by natural processes (1) Neem (2) Lemon grass (3) Marigold	
2 Boric acid	Limited to be used in container
3 Diatomaceous earth	Limited to be used in controlling pests and diseases in protective facilities
4 Lime, Lime and sulphur mixture	
5 Non-GMO microbial pesticides which consist of bacteria (e.g. Bt, Bs, Ba), entomopathogenic fungi and viruses	Forbidding exotoxin
6 Pyrethrum extract	
7 Sodium bicarbonate	

(2) Substances allowed to be used in cleaning and disinfecting

Substances	Conditions
1 Alcohols (1) Ethanol (2) Isopropanol	Limited to the use as cleaning agent as per regulations
2 Chlorine materials (1) Calcium hypochlorite (2) Chlorine dioxide (3) Sodium hypochlorite (4) Hypochlorous acid solution	Limited to the use as cleaning agent as per regulations
3 Fungicide-free soap	
4 Phosphoric acid	Limited to the use as cleaning agent as per regulations
5 Sodium hydroxide (alkali liquor, caustic flakes, caustic soda)	Limited to the use as cleaning agent as per regulations
6 Peracetic acid, peroxyacetic acid	Limited to the use as cleaning agent as per regulations

(3) Food additives allowed to be used

Substances	Conditions
1 (1) Alginic acid (2) Calcium alginate (3) Potassium alginate (4) Sodium alginate	
2 (1) Ammonium carbonate (2) Ammonium bicarbonate (3) Sodium bicarbonate	Limited to the use as leavening agent
3 Bentonite	
4 Carnauba wax	
5 (1) Potassium carbonate (2) Calcium carbonate (3) Magnesium carbonate (4) Sodium carbonate (5) Sodium carbonate, anhydrous	Limited to the use for cereal products
6 (1) Magnesium chloride (2) Salt brine; bittern (3) Calcium chloride (4) Potassium chloride	Limited to the use of those extracted from sea water and to be used as coagulator for soy products
7 (1) Citric acid (2) Calcium citrate (3) Potassium citrate (4) Sodium citrate	Limited to the use of those extracted from fruit or fermented by natural raw material like carbohydrate
8 Sulphuric acid	Limited to the use for production of sugar and gelatin
9 (1) Calcium sulphate (2) Magnesium sulphate	Limited to the use of those from natural sources
10 Sulphite	Limited to the use for grape wine and fruit wine under the

	precondition that the residual quantity of SO_2 is less than 100 ppm
11 (1) Calcium phosphate，dibasic (2) Calcium phosphate, monobasic (3) Calcium phosphates, tribasic	
12 Carrageenan	
13 Casein	Limited to the use for liquor and meat processing
14 Diatomaceous earth	Limited to the use for adsorption or filtering of food manufacturing
15 DL-malic acid (Hydroxysuccinic acid)	
16 DL-α-Tocopherol (Vitamin E)	
17 Enzyme	1. Limited to the use of those from edible non-poisonous plants, nonpathogenic microorganisms or healthy animals 2. Limited to the use of those not treated by organic solvent
18 (1) Fumaric acid (2) Monosodium fumarate	
19 Glucono-δ-Lactone	
20 Glycerol	Limited to the use of those made by lipid hydrolysis
21 Hydrogen peroxide	Limited to the use as sanitizing agents
22 (1) L-Ascorbic acid (Vitamin C) (2) Sodium L-Ascorbate	
23 Lactic acid	

24 Calcium lactate	
25 Perlite	
26 Polygalloyl-Glucose, Tannic acid	
27 (1) Tartaric acid (2) Monopotassium tartrate (3) D&DL-Sodium tartrate	
28 (1) Potassium hydroxide (2) Sodium hydroxide (3) Calcium hydroxide	1. Limited to the use as pH adjustment for processing sugar or cereal products 2. Not to be used for alkali peeling of vegetables and fruits
29 Silicon dioxide	
30 Talc	
31 Xanthan gum	
32 Hydroxypropyl methyl cellulose	Limited to the use as capsule material

(4) Other substances allowed to be used

Substances	Conditions
1 Gum Arabic	Conform to Specifications Standard for Gum Arabic as Food Raw Material
2 Calcium carbide	
3 Activated carbon	
4 Agar	Limited to be unbleached
5 Beeswax	Limited to the use as releasing agents
6 Carbon dioxide	
7 Charcoal ash	
8 Corn starch (native)	
9 Ethanol	
10 Ethylene	Used in the form of processing aid
11 Gelatin	
12 Guar gum	
13 Kaolin	
14 Lecithin	When in liquid form, it shall be obtained without organic solvents.
15 Carob bean gum	When used in processed animal products, it is only for dairy and meat product processing.
16 Natural colors	
17 Natural flavors	
18 Natural yeast	
19 Nitrogen	Only from non-petroleum sources or oil-free grade
20 Oxygen	Only from oil-free grade
21 Ozone	Only for cleaning and infection purpose
22 Pectins	Limited to the use of those from non-amidation

2. Crop production

(1) Substances allowed to be used for weed, plant disease and pest control

a. The use of synthetic chemicals, including those natural substances which are treated with synthetic chemicals or by a chemical process to change their original physicochemical properties, shall not be used unless listed below and shall be subject to the following conditions:

Substances	Conditions
1 Chitosan 2 Synthetic vinegars 3 Chlorine materials: hypochlorites, chlorates and chlorine dioxide 4 Copper materials: copper sulphate, copper hydroxide, cuprous oxide, copper oxychloride and tribasic copper sulphate 5 Bordeaux mixture (copper sulphate + lime) 6 Neutralized phosphorous acid (Phosphorous acid + Potassium hydroxide) 7 Potassium bicarbonate, sodium bicarbonate (baking soda) 8 Calcium carbonate 9 Lime, sulphur, lime and sulphur mixture 10 Potassium hydroxide 11 Siliceous substances: silicates, silicon dioxide 12 Mineral oil 13 Insect attractant or repellent (pheromone, methyl	1. While using chlorine materials or copper materials, decrease the accumulated chlorine or copper as possible 2. While using pheromone, insect attractant, borax or boric acid, the direct contact with crop is prohibited 3. While using methyl eugenol with insecticide, it shall be placed in trap and avoid directly contacting with plant and soil. Before using it, the applying plan shall be submitted to the certification body and it can only be used according to the applying plan permitted by certification body.

	eugenol, protein hydrolysate, cuelure and etc.)	
14	Fungicide-free salts of fatty acids (soap)	
15	Borax, boric acid	
16	Methyl eugenol with insecticide	

b. Except those stipulated below, all the natural substances can be used:

Substances		Conditions
1	*Derris trifoliata* Lour.	
2	Plant extracts and mineral materials which are harmful to human body	

(2) Substances allowed to be used for soil fertility management

a. The use of synthetic chemicals, including those natural substances which are treated with synthetic chemicals or by a chemical process to change their original physicochemical properties, shall not be used unless listed below and shall be subject to the following conditions:

Substances	Conditions
1 The residues of brewery (waste wine lees, distillers' grains or distillers' wort).	
2 The waste of plant residue during process procedure without addition of spice by food and beverage manufacturer (such as tea residues, coffee residues, bean residues, fruit and vegetable residues).	Waste residues shall not contain the slug from waste water process.
3 Flavored or formulated milk powders	
4 Basic slag	The usage of silicate slag shall not exceed four tons/hectare/year.
5 The meals produced after the oil had been extracted from plant seeds (such as soybeans, peanuts, linseed, sesame, rapeseed, castor bean, coconut meals and etc.).	The meals produced from seed oil extraction treated with an adequate amount of potassium hydroxide can be used, but the weight of potassium oxide in the product shall not exceed 3%, the humus shall not be below 1% and the ratio of humus and potassium oxide shall be at least 3 (W/W).
6 The chitin or the chitosan obtained from shells of shrimps and crabs processed by adequate amount of hydrochloric acid and	While using the chitin or the chitosan obtained from shells of shrimps and crabs processed by adequate amount of hydrochloric

potassium hydroxide.	acid and potassium hydroxide, the weights of potassium oxide and chlorine of the products shall not exceed 3% and 2%, respectively.
7 Products (sugar) and by-products (bagasse, molasses and sugar filter mud) of sugar industry	
8 Amino acid	
9 Seaweed hydrolysate, fish hydrolysate	

b. Except those stipulated below, all the natural substances can be used:

Substances	Conditions
1 Ashes and dusts from industrial process	
2 Chile saltpeter	
3 Lime obtained from industrial by-products	

(3) Substances allowed to be used for growth regulation, harvest, preparation, storage and packaging

The use of synthetic chemicals, including those natural substances which are treated with synthetic chemicals or by a chemical process to change their original physicochemical properties, shall not be used unless listed below and shall be subject to the following conditions:

Substances	Condition
1 Ethylene 2 Calcium carbide 3 Carbon dioxide 4 Nitrogen 5 Ethanol (Alcohol)	Industrial alcohol is prohibited.

3. Livestock products

(1) Synthetic substances allowed to be used for livestock production

Substances	Use conditions
1 Synthetic substances used for disinfecting, cleaning and medical treatment:	
(1) Alcohol	
i. Ethanol	For use only as disinfectant; and cleaning agent and strictly prohibited to use as supplementary feed
ii. Isopropyl alcohol	For use only as disinfectant
(2) Chlorine materials	
i. Calcium hypochlorite.	For use only as sterilization or cleaning of utensils and equipment. The residual of chlorine shall not exceed the threshold value of drinking water.
ii. Chlorine dioxide	
iii. Sodium hypochlorite	
(3) Chlorhexidine	Veterinarian may use this during surgery. When all germicides fail to cure mastitis, it may be used to soak the breast teat.
(4) Electrolyte without antibiotics	
(5) Glucose	
(6) Glycerol	For use only in soaking teats of livestock. Its source shall be from hydrolysis of fat or oil.
(7) Iodide	
(8) Hydrogen peroxide	
(9) Phosphoric acid	For use only in cleaning equipment. It shall not contaminate the livestock living area or make physical contact with organic livestock
(10) Vaccine	

(11) Aspirin	For use only to reduce inflammation
(12) Sodium hydroxide	For use only in cleaning equipment. It shall not contaminate the livestock living area or make physical contact with organic livestock.
(13) Organic acid	Limited to be used in cleaning equipment
i. Acetic acid	
ii. Lactic acid	
iii. Citric acid	
(14) Sodium carbonate	Limited to be used in cleaning equipment
(15) Fungicide-free soaps	Limited to be used in cleaning equipment
2 Synthetic substances used for local treatment, elimination of ectoparasite or local anesthesia	
(1) Iodide	
(2) Calcium hydroxide	
(3) Mineral oil	For use only in local application or for lubricant use
(4) Copper sulphate	
(5) Diatomite	For use to disinfect ectoparasite
(6) Vegetable oil	For use to disinfect ectoparasite
3 Supplementary feed	
(1) Trace minerals	For use only as nutrient enhancement. The varieties and dosage shall meet related national standards.
(2) Vitamins	For use only as nutrient enhancement
(3) Methionine	For use only for poultry
4 Substances allowed to be used in the drinking water: none.	

(2) Prohibited natural substances:

	Substances
1	By-products of livestock slaughter
2	Excrements of livestock
3	Radiation processed or genetically modified organisms and products thereof
4	Industrial waste cultured algae and their products
5	Plants containing Strychnine
6	Invertebrates (such as earthworms, but those bred and raised by the organic farm are excluded.)
7	Egg and egg products