



# **EARTH TAG ORGANIC STANDARD**

**EDITION: ET – ORG.STD – 12**



## PREFACE

For a long time, traditional farming used chemical pesticides and fertilizers to solve pest and production issues. Unfortunately, resistance towards chemical pesticides meant that pest and bacterial infestations increased in severity, and the degradation of the land as a result of the use of chemical fertilizers meant a yearly decline in harvest. Even new technologies could not guarantee a solution.

The environment also paid the price: With pollution increasing by the day, beneficial insects in the environment experienced a dramatic decline, and agricultural products would frequently become unsafe to eat because of the chemical residues in the land.

The Earth Tag Organic Certification was established in October 2010 to help consumers verify earth-friendly farming methods as well as non-toxic and safely produced organic agricultural products. The first civil organic certification standard to be established in Malaysia, Earth Tag also boasts the honor of being recognized by the International Federation of Organic Agriculture Movements (IFOAM).

This standard thoroughly covers organic agricultural practices including seeds and materials; overall farm environment; soil; water source; harvest; storage; packaging; label usage; mode of transport; selling; certification procedures; and more. With detailed and comprehensive marks and guidelines, it helps consumers to identify trustworthy product brands and organic verification bodies.

Now, consumers are confident in products labelled Earth Tag and know them to be safe, organic, and non-toxic. Earth Tag Organic Certification has also become a trusted organic certification standard in Malaysia.



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**1.0 Definitions**

- (a) Accreditation: A determination made by the Secretary authorized by Earth Tag Management Representative to conduct certification activities as a certifying agent under this part.
- (b) Administrator: The Administrator for the Earth Tag Management Representative or the Earth Tag Authorized Team’s representative to whom authority has been delegated to act in the stead of the Administrator.
- (c) Agricultural inputs: All substances or materials used in the production or handling of organic agricultural products.
- (d) Agricultural product: Any agricultural commodity (excluding livestock) or product, whether raw or processed that is marketed in the country for human consumption.
- (e) Annual seedling: A plant grown from seed that will complete its life cycle or produces a harvestable yield within the same crop year or season in which it was planted.
- (f) Area of operation: The types of operations: crops, wild-crop harvesting or handling, or any combination thereof that a certifying agent may be accredited to certify under this part.
- (g) Biodegradable: Subject to biological decomposition into simpler biochemical or chemical components.
- (h) Bio-solids: Sewage sludge that is referred to as treated human waste.



- (i) **Buffer zone:** A clearly defined and identifiable boundary area bordering an organic production site that is established to limit application of, or contact with, prohibited substances from an adjacent area.
- (j) **Certification or certified:** The procedure by which the certification body gives written assurance that a clearly identified production and handling processes have been methodically assessed, such that adequate confidence is provided that specified products conform to specified requirements.
- (k) **Certified operation:** A crop production, wild-crop harvesting or handling operation, or portion of such operation that is certified by Earth Tag Authorized Team as utilizing a system of organic production or handling as described by the regulations in this part.
- (l) **Certifying agent:** An Earth Tag Authorized Team who is trained for the purpose of certifying a production or handling operation as a certified production or handling operation.
- (m) **Commingling:** Physical contact between unpackaged organically produced and non-organically produced agricultural products during production, processing, transportation, storage or handling, other than during the manufacture of a multi-ingredient product containing both types of ingredients.
- (n) **Compost:** The product of a managed process through which microorganisms break down plant and animal materials into more available forms suitable for application to the soil.
- (o) **Control:** Any method that reduces or limits damage by populations of pests, weeds, or diseases to levels that do not significantly reduce productivity.
- (p) **Crop:** Pastures, cover crops, green manure crops, catch crops, or any plant or part of a plant intended to be marketed as an agricultural product or used in the field to manage nutrients and soil fertility.
- (q) **Crop rotation:** The practice of alternating the annual crops grown on a specific field in a planned pattern or sequence in successive crop years so that crops of the same species or family are not grown repeatedly without interruption on the same field.
- (r) **Conversion period:** According to Earth Tag Organic Standard, the period between the start of the organic management and the certification of crops as organic.
- (s) **Farm unit:** The total area of land under the control of one farmer or collective of farmers, and including all the farming activities or enterprises.
- (t) **Fertilizer:** A single or blended substance containing one or more recognized plant nutrient(s) which is used primarily for its plant nutrient content and which is designed for use or claimed to have value in promoting plant growth.
- (u) **Field:** An area of land identified as a discrete unit within a production operation.
- (v) **Genetic engineering:** Genetic engineering is a set of techniques from molecular biology (such as recombinant DNA) by which the genetic material of plants, animals, micro-organisms, cells and other



biological units may be altered in ways or with result that could not be obtained by methods of natural mating and reproduction of natural recombination. Techniques of genetic modification include, but are not limited to: recombinant DNA, cell fusion, micro and macro injection, encapsulation, gene deletion and doubling. Genetically engineered organisms do not include organisms resulting from techniques such as conjugation, transduction and natural hybridization.

- (w) Genetically Modified Organism (GMO): A crop, animal, or microbe that is transformed by genetic engineering.
- (x) Governmental entity: Any domestic government, tribal government (if present), or foreign governmental subdivision providing certification services.
- (y) Green manure: A crop that is incorporated into the soil for the purpose of soil improvement.
- (z) Growing media: Material (including soils in situ), in which plants are grown in off-ground, only applicable to specific plants.
- (aa) Handler: Any person engaged in the business of handling agricultural products, including producers who handle crops of their own production, except such term shall not include final retailers of agricultural products that do not process agricultural products.
- (bb) Handling operation: Any operation or portion of an operation (except final retailers of agricultural products that do not process agricultural products) that receives or otherwise acquires agricultural

products and processes, packages, or stores such products.

- (cc) Immediate family: The spouse, minor children, or blood relatives who reside in the immediate household of a certifying agent or an employee, inspector, contractor, or other personnel of the certifying agent.
- (dd) Information panel: That part of the label of a packaged product that is immediately contiguous to and to the right of the principal display panel as observed by an individual facing the principal display panel, unless another section of the label is designated as the information panel because of package size or other package attributes (e.g., irregular shape with one usable surface).
- (ee) Ingredient: Any substance used in the preparation of an agricultural product that is still present in the final commercial product as consumed.
- (ff) Ingredients statement: The list of ingredients contained in a product shown in their common and usual names in the descending order of predominance.
- (gg) Inspector: Any person retained or used by a certifying agent to conduct inspections of certification applicants or certified production or handling operations.
- (hh) Inspection: The act of examining and evaluating the production or handling operation of an applicant for certification or certified operation to determine compliance with the regulations in this part.



- (ii) Label: A display of written, printed, or graphic material on the immediate container of an agricultural product or any such material affixed to any agricultural product or affixed to a bulk container containing an agricultural product, except for package liners or a display of written, printed, or graphic material which contains only information about the weight of the product.
- (jj) Manure: Faeces, urine, other excrement, and bedding produced by livestock that has not been composted.
- (kk) Maximum Residue Limit (MRL): The highest level of pesticide residue legally permitted in food or agricultural commodities as established by national or international authorities.
- (ll) Mulch: Any non-synthetic material, such as wood chips, leaves, or straw, or any newspaper or plastic that serves to suppress weed growth, moderate soil temperature, or conserve soil moisture.
- (mm) Non-agricultural substance: A substance that is not a product of agriculture, such as a mineral or a bacterial culture, that is used as an ingredient in an agricultural product.
- (nn) Noncompliance: The failure or refusal to comply: the failure or refusal to conform and adapt one's actions to a rule or necessity.
- (oo) Operator: An individual or business enterprise, responsible for ensuring that products meet the certification requirements.
- (pp) Organic: A labelling term that refers to an agricultural product produced in accordance with the regulations in this part.
- (qq) Organic matter: The remains, residues, or waste products of any organism.
- (rr) Organic production: A production system that is managed in accordance with the regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.
- (ss) Organic seed and plant material: Seed and planting material that is produced under certified organic management.
- (tt) Practice standard: The guidelines and requirements through which a production or handling operation implements a required component of its production or handling organic system plan. A practice standard includes a series of allowed and prohibited actions, materials, and conditions to establish a minimum level performance for planning, conducting, and maintaining a function, such as facility pest management, essential to an organic operation.
- (uu) Parallel production: Any production where the same unit is growing or handling the same products in both a certified organic system and a non-certified or non-organic system. A situation with “organic” “and “in conversion” production of the same product is also considered parallel production. Parallel production is a special instance of partial production.



- (vv) **Partial conversion or split production:** Where only part of farm or unit is certified as organic. The remainder of the property may be (a) non-organic, (b) in conversion or (c) organic but not certified.
- (ww) **Permitted substance:** A substance that appears in Appendices 4 and 6 of this standard which the substances are allowed for use in organic production or handling.
- (xx) **Private entity:** Any domestic or foreign non-governmental for-profit or not-for-profit organization providing certification services.
- (yy) **Producer:** A person who engages in the business of growing or producing food, fibre and other agricultural-based consumer product.
- (zz) **Prohibited substance:** A substance whose use in any aspect of organic production or handling is prohibited or not provided for in the regulations of this standard.
- (aaa) **Records:** Any information in written, visual, or electronic form that documents the activities undertaken by a producer, handler, or certifying agent to comply with the regulations in this standard.
- (bbb) **Residue Testing:** A proven validated analytical procedure to detect, identify and measure the presence of chemical substances within the metabolites or degradation products in or on raw or processed agricultural products.
- (ccc) **Secretary:** The Secretary of Earth Tag Organic Standard or a representative to whom authority has been delegated to act in the Secretary's stead.
- (ddd) **Sewage sludge:** A solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes but is not limited to: domestic seepages; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge.
- (eee) **Split operation:** An operation that produces or handles both organic and nonorganic agricultural products.
- (fff) **Soil and water quality:** Observable indicators of the physical, chemical, or biological condition of soil and water, including the presence of environmental contaminants.
- (ggg) **Synthetic:** Manufactured by chemical and industrial processes: May include products not found in nature, or simulation of products from natural sources (but not extracted from natural raw materials)
- (hhh) **Tolerance:** The maximum legal level of a pesticide chemical residue in or on a raw or processed agricultural commodity or processed food.
- (iii) **Transplant:** A seedling which has been removed from its original place of production, transported, and replanted.
- (jjj) **Wild crop:** Any plant or portion of a plant that is collected or harvested from a site that is not maintained under cultivation or other agricultural management.



- (kkk) Raw materials: The constituent materials of the edible part of a finished product. Includes main raw materials, auxiliary raw materials, and food additives.
  - a. Main raw material: The main material that constitutes a finished product.
  - b. Auxiliary raw material: Secondary materials other than the main material and food additives that constitute a finished product.
  - c. Food additives: Single or compound substances added to or in contact with food for bleaching, coloring, flavoring, emulsification, preservation, aroma-enhancement, nutrition-enhancement, quality-stabilisation, promotion of consistency, promotion of fermentation, prevention of oxidisation, or other necessary purposes. The additives used in compound food additives are composed only of additives approved by the central competent authority, and the aforementioned approved single food additives should all carry the permit number provided by the central competent authority.
  
- (lll) Processing aids:
  - a. Substances added during food processing that are somehow removed from the food product before final packaging.
  - b. Substances added during food processing for functional or technical effect that remain in the finished food product as trace residue but have no functional or technical impact on the food product.
  
- (mmm) Packaging materials: Inner packaging materials and outer packaging materials.
  - a. Inner packaging material: Food containers that are in direct contact with food such as bags, tins, bottles, or boxes, etc., as well as packaging material that directly covers or envelops foods such as film, foil, paper, wax paper, etc., of which materials must meet sanitation laws and regulations.
  - b. Outer packaging material: Packaging materials that are not in direct contact with food, including cartons, labels, and baling material, etc.
  
- (nnn) Products: Semi-finished products, final semi-finished products, and finished products.
  - a. Semi-finished product: Any product obtained during the manufacturing process which can be turned into a finished product following subsequent manufacturing process(es).
  - b. Final semi-finished product: Any product that has gone through the complete manufacturing process but has not yet been packaged or marked.
  - c. Finished product: Any product that has not only gone through the complete manufacturing process but been packaged and marked.
  
- (ooo) Plants: Part or all of any buildings or facilities used for the storage, manufacturing, packaging, and other related processes of food.
  
- (ppp) Manufacturing workplaces: Raw-material-handling plants, processing and conditioning plants, and packaging plants.
  - a. Raw-material-handling plant: The place where raw materials are handled, prepared, thawed, sorted,



- cleaned, trimmed, peeled, sliced, shelled, salted, or otherwise processed.
  - b. Processing and conditioning plant: The place where ingredients are extracted, cut up, ground up, mixed, blended, formed, moulded, cooked, improved, or preserved (such as through oil extraction, starch separation, emulsification, paste manufacturing, coagulation, fermentation, sterilization, freezing, or drying).
  - c. Packaging plant: The place where finished products are packaged. Includes the inner packaging plant and outer packaging plant. The inner packaging plant refers to the workplace that is in direct contact with the product contents; the outer packaging plant refers to the workplace that is not in direct contact with the product contents.
- (qqq) Cleaning: The process by which dirt, dust, debris, and other undesirable substances that may contaminate food are removed.
  - (rrr) Disinfection: The process by which chemical agents and/or physical methods that meet food hygiene standards are used to effectively kill harmful microorganisms without affecting food quality or other safety concerns.
  - (sss) Food detergents: Substances that are used to wash or sterilize food, food equipment, utensils, containers, and packaging materials without compromising the hygiene and safety levels of food.
  - (ttt) Pests: Insects or small animals that may directly or indirectly contaminate food and spread diseases, such as rats, cockroaches, flies, mosquitoes, fleas, lice, bed bugs, etc.
  - (uuu) Food-contact surfaces: Surfaces that are in direct or indirect contact with food, including the surfaces of utensils and equipment that are in contact with food. Indirect-food-contact surfaces refer to surfaces which, under normal operating conditions, liquid flowing from them will come into contact with food or direct-food-contact surfaces.
  - (vvv) Water activity: The expression of free water in food, which is the quotient obtained by dividing the water vapor pressure of the food by the saturated water vapor pressure of pure water at the same temperature.
  - (www) Lot number: ‘Lot’ refers to a specific quantity of products produced at a specific time and place. ‘Lot number,’ which can be represented by specific characters, numbers, or symbols, is the data used to trace the experience of each batch of products.
  - (xxx) Isolation: The physical separation from one place to another.
  - (yyy) Segregation: The physical or intangible measures by which food workplaces are segregated according to conditions such as time, location, or air flow, etc.
  - (zzz) Tracking and traceability systems: Measures through which food companies can trace the source of product supply or track the flow of products by marking each step of the food and related



products through the supply chain in order to establish their information and management.

## **2.0 Applicability**

### **2.1 Items to be Certified**

- (a) Scope:
  - (1) Unprocessed agricultural products;
  - (2) Processed agricultural products: The manufacturing process through which organic raw materials are heated, dried, smoked, mixed, ground, stirred, preformed, separated, distilled, extracted, fermented, pickled, dehydrated, shelled, milled, frozen, or otherwise physically changed, chemically changed, or substantially transformed.
  - (3) Sub-packaging: The sorting, washing, and slicing of organic raw materials, which process(es) should not change the physical and chemical properties of the original product.
  - (4) Distribution: The trading of organic or organic-in-conversion agricultural products after changing the original packaging or original labelling.
- (b) Agricultural products shall be only produced in soil-based systems. Water-based systems are not recognized as such.
- (c) Operation or handling operation or specified portion of a production or handling operation that produces or handles crops, or other agricultural products that are intended to be sold, labeled, or represented as “100% organic”, “organic”, or “organic in-conversion” must be certified according to the provisions of subpart 4 of this part and must meet all other applicable requirements of this part.

### **2.2 Use of Organic Term**

Any agricultural products or crops that are sold, labeled or represented as “organic,” “organic-in-conversion,” or “made with organic ingredient” must be produced and handled fully in accordance with the Earth Tag Organic Standard requirement.

### **2.3 Record Keeping**

All certified operations must maintain records concerning the production, harvesting, and handling of agricultural products that are intended to be sold, labeled as “100% organic”, “organic”, or “organic in-conversion”. All records must:-

- (a) Be adapted to the particular business that the certified operation is conducting;
- (b) Fully disclose the details of all activities and transactions of the certified operation;
- (c) Be maintained for minimum of 2 years beyond their creation;
- (d) Be sufficient to demonstrate compliance with Earth Tag Organic Standard.

### **2.4 Allowed and Prohibited Substances, Methods and Ingredients in Organic Production and Handling**

To be sold or labeled as “100% organic”, “organic” or “organic in-conversion” the product must be produced according to the following provisions:

- (a) Substances applied to the land or crop shall be in accordance with Appendices 4;



- (b) All ingredients used in an organic processing product shall be organically produced except for those additives and processing aids that appear in Appendix 6 Table 1;

In cases where an ingredient of organic origin is commercially unavailable in sufficient quality or quantity, operators may use non-organic raw materials, provided that: a. they are not genetically engineered or contain nanomaterials, and b. the current lack of availability in that region is officially recognized or prior permission from the control body is obtained. c. the requirements in section 4.2 shall be met.

- (c) Any solvents, additives, processing aids, or other material that reacts chemically with organic products or modifies it must be organically produced or appear in Appendix 6 Table 1 and shall be used in accordance with noted restrictions.
- (d) Only water and substances that appear in Appendix 6, Table 2, may be used as equipment cleansers and equipment disinfectants that may come into direct contact with the product.
- (e) Non-synthetic substances that appear in Appendix 5 are prohibited.
- (f) Ionizing radiation as described in Food Irradiation Regulations 2011, Food Act 1983 is prohibited.
- (g) Sewage sludge described in Malaysian Organic Certification Standard (myOrganic), MS 1529:2001 and Environmental Quality Act 1974:

Environmental Quality (Sewage) Regulation 2009 is prohibited.

### **3.0 Organic Production and Handling Requirements**

#### **3.1 General**

The producer or handler of a production operation in the farm unit includes “Organic In-Conversion” or “Organic” certification practice.

The certification of farm unit as “Organic In-Conversion” shall be given where the producer has been verified that the farm management has been in compliance with the relevant sections of Earth Tag Organic Standard, including passing the soil test, irrigation water test and harvest test during the initial audit. (Refer Appendix 2)

The “Organic” Certification of farm units shall be given where it has been verified that the farm management has been in compliance with the relevant sections of Earth Tag Organic Standard and that organic quality criteria have been achieved in defined years. The conversion period of short-term crops (e.g. leaf vegetables, fruits, beans, mushrooms) will be two (2) years, and the conversion period for long-term crops (e.g. fruit tree, tea plant) will be three (3) years.

The producer or handler of a production operation or handling operation must comply with the applicable provisions of this subpart. The production practices implemented must maintain or improve the natural resources of the operation, including soil and water quality.

#### **3.2 Organic Production and Handling System Plan**

- (a) The producer or handler of a production or handling operation intending to sell, label, or represent agricultural products as “100%



organic”, “organic” or “organic in-conversion” must develop an organic production or handling system plan. The organic production or handling system plan must be agreed by the producer or handler and also by Earth Tag Authorized Team. For organic production or handling, an organic system plan must meet the requirements set in this section. An organic production or handling system plan must include:

- (1) A description of practices and procedures including the frequency to be performed and maintained,
- (2) A list of each substance to be used as a production or handling input. It also needs to include the indication of its composition, source, location(s) where it will be used, and documentation of commercial availability, as applicable;
- (3) A description of the monitoring practices and procedures including the frequency to be performed and maintained. This is to verify that the plan is effectively implemented;
- (4) A description of the record keeping system implemented to comply with the requirements established in 2.3 Record Keeping.
- (5) A description of the management practices and physical barriers to be established to prevent commingling of organic and nonorganic products. Split operation is required to prevent contact of organic production and handling operations, and also to prevent contact with prohibited substances.
- (6) Additional information deemed necessary by the certifying agent to evaluate compliance with the regulations.

### **3.3 Land Requirements**

Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “100% organic”, “organic” or “organic in-conversion”, must:

- (a) Prove the field or farm management has legal rights to the cultivation of the land and all necessary regulatory approvals (Appendix 1).
- (b) Prove that the site of farm is not a protected forest. Clearing or destruction of High Conservation Value Areas is prohibited.
- (c) Have been managed in accordance with the provisions of 3.5 (Soil fertility and crop nutrient management practice standard) through 3.8 (Crop pest, weed, and disease management practice standard);
- (d) Have had no prohibited substances applied to the land immediately after the application submitted.
- (e) Have distinct, defined boundaries and buffer zones distance that are able to prevent the risk of contamination from neighbor’s field such as runoff diversions. This is to prevent the unintended application of a prohibited substance to the crop or prohibited substance applied to adjoining land that is not under organic management.

### **3.4 Natural Resources and Biodiversity Conservation Management Practice Standard**

- (a) The conservation of natural resources and biodiversity is a primary tenet of organic production. For instance, native vegetation interspersed throughout a certified organic



operation provides food, cover, and corridors for beneficial organisms such as pollinators, slows water down for erosion control and groundwater recharge, and filters pollution.

- (b) Using practices that attract or introduce beneficial insects, provide habitat for birds and mammals, and provide conditions that increase soil biotic diversity serve to supply vital ecological services to organic production systems.
- (c) Advantages to certified organic operations that implement these types of production practices include:
  - (1) Decreased dependence on outside fertility inputs;
  - (2) Reduced pest management costs;
  - (3) More reliable sources of clean water; and
  - (4) Better pollination
- (d) Operators shall design and implement measures to maintain and improve landscape and enhance biodiversity quality, by maintaining on-farm wildlife refuge habitats or establishing them where none exist. Such habitats may include, but are not limited to:
  - (1) Extensive grassland such as moorlands, reed land or dry land;
  - (2) In general, all areas which are not under rotation and are not heavily manured: extensive pastures, meadows, extensive grassland, extensive orchards, hedges, hedgerows, edges between agriculture and forest land, groups of trees and/or bushes, and forest and woodland;
  - (3) Ecologically rich fallow land or arable land;
  - (4) Ecologically diversified (extensive) field margins;

- (5) Waterways, pools, springs, ditches, floodplains, wetlands, swamps and other water rich areas which are not used for intensive agriculture or aquaculture production;
- (6) Areas with ruderal flora;
- (7) Wildlife corridors that provide linkages and connectivity to native habitat.

### **3.5 Water Management Practice Standard**

- (a) The producer must take measures to enhance the efficiency of water use on farm and to enhance the ecological aspects of the farming operation in respect of water features.
- (b) The practices shall include one or more of the following:
  - (1) Enhancement of water holding capacity of the soil via progressive humus build-up;
  - (2) Permanent sod and mulching practices for the containment of moisture;
  - (3) Selection of appropriate irrigation equipment;
  - (4) Water catchment systems designed to maximize on-farm water use efficiency;
  - (5) Monitoring using tensiometers, evaporation figures, etc.
- (c) Water leaving the farm shall be at least the same quality as that being applied or used and shall not lead to the pollution or environmental degradation of surrounding areas.
- (d) Water and waterways shall be managed, and where relevant monitored, by the operator in light of the broader ecology of the farming system, with a management focus on ensuring the protection, development and enhancement of natural



water features (such as wetlands, catchment areas, streams and rivers) and a focus on healthy water management of contained waters such as dams and ring tanks.

- (e) Water used for irrigation shall not pose food safety risks arising from toxic substances. Where concern is noted in regard to safety or quality issues, a monitoring and testing program may be required by the operator that verifies ongoing safety of supply.
- (f) Irrigation water used shall comply at a minimum with standard irrigation water quality criteria (Appendix 2). Water arising from conventional production systems is restricted from use and shall not be permitted where such water contains contaminants that may affect the organic integrity of products or land.

### **3.6 Soil Fertility and Crop Nutrient Management Practice Standard**

- (a) The producer must select and implement tillage and cultivation practices. This is to maintain or improve the physical, chemical, and biological condition of soil and minimize soil erosion and salinization. Reduce use of mechanical operation to reduce deterioration of the soil structure.
- (b) The producer must manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials.
- (c) The producer must manage plant and animal materials to maintain or improve soil organic matter content. The way it is managed must not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms,

heavy metals, or residues of prohibited substances.

- (d) Mushroom producer's growing media will be regarded as soil. Soil test will be performed at least once every year for substrate medium and off-ground cultivation medium. In terms of log cultivation, soil test will not be performed.
- (e) Animal manures shall not be used directly on food crops, unless they have been composted or measures are taken to prevent risk of contamination exceeding applicable health and sanitary regulations. Use of human and pig excrement is prohibited.
- (f) A producer may manage crop nutrients and soil fertility to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances by applying:
  - (1) Plant or animal materials that have been fully composted by the producer in organic farm itself through a process that:
    - (i) Established an initial C:N ratio of between 25:1 and 40:1; and
    - (ii) Maintained a temperature of between 55°C and 76°C for 3 days using an in-vessel or static aerated pile systems; or
    - (iii) Maintained a temperature of between 55°C and 76°C for 15 days using a windrow composting system, during which period, the materials must be turned a minimum of 5 times.
  - (2) Uncomposted plant materials;
  - (3) Synthetic substances that are allowed for use in organic crop production;



- (4) Fertilizers and soil conditioners listed in Appendix 4 that are allowed for use in organic crop production;
  - (5) Mineral fertilizers listed in Appendix 4 may be applied in the form in which they are naturally composed and extracted and shall not be rendered more soluble by chemical treatment.
  - (6) Chilean nitrate and all synthetic fertilizers, including urea, are prohibited.
  - (7) Ash obtained from burning of a plant or animal material, except as prohibited in paragraph (e) of section 3.6. Provided that, the material burned has not been treated or combined only with prohibited substances.
  - (8) A plant or animal material that has been chemically changed by a manufacturing process; Provided that, the material is included in the Appendix 4.
- (g) The producer must not use:
- (1) Any fertilizer or composted plant and animal material that contain a synthetic substance not included in the Appendix 4.
  - (2) Any fertilizer or compost fertilizer that contain the non-synthetic substances listed in Appendix 5.
  - (3) Sewage sludge (bio-solids) as described in Malaysian Organic Certification Standard (myOrganic), MS 1529:2001 and Environmental Quality Act 1974: Environmental Quality (Sewage) Regulation 2009.
  - (4) Any plant or animal materials contaminated with excessive chemical residues, heavy metals, and radioactive substances as raw materials for compost in organic production;
  - (5) Any municipal waste without proper classification and separation as input for use in organic production;
- (6) GMO materials or formulations.
  - (7) Burning as a means of disposal for crop residues produced on the operation as described in Environmental Quality Act 1974 [Act 127] (P.U. (A) 460/2003 Environmental Quality (Declared Activities) (Open Burning) Order 2003); Except that, burning may be used to suppress the spread of disease or to stimulate seed germination as allowed in Plant Quarantine Act 1976 [Act 167].
- (h) Land preparation by burning vegetation or crop residues is only allowed in exceptional cases, for reasons such as disease control or to stimulate seed germination, and only with approval from the Certification Office.

### **3.7 Seeds and Planting Stock Practice Standard**

- (a) The producer must use organically grown seeds, annual seedlings, and planting stock: Except for those that are:
  - (1) Untreated non-organic seeds and planting stock may be used to produce an organic crop only if equivalent organically produced variety is not commercially available. Except for production of edible sprouts, the organically produced seed must be used;
  - (2) If 3.7 (a) (1) is not commercially available, seeds and planting stock treated with substances listed in Appendix 4 may be used.
  - (3) Non-organically produced annual seedlings may be used to produce an organic crop when a temporary variance has been granted in accordance with 3.14 (a)(2);



- (4) Non-organically produced planting stock to be used to produce a perennial crop may be sold, labeled, or represented as organically produced only after the planting stock has been maintained under a system of organic management for a period of no less than 1 year; and
- (5) Seeds, annual seedlings, and planting stock treated with prohibited substances may be used to produce an organic crop when the application of the materials is a requirement of Malaysian Phytosanitary Certification Assurance (MPCA) Scheme or International Standards for Phytosanitary Measures by Food and Agriculture Organization of the United Nations (FAO).

- (b) The producer must not use GMO seeds, annual seedlings and planting stocks to produce products on organic crop.

### **3.8 Crop Rotation Practice Standard**

The producer must implement a crop rotation including sod, cover crops, green manure crops, and catch crops. However, the crop rotation is not limited to the practices above: the crop rotation must be able to provide the following functions that are applicable to the operation.

- (a) Maintain or improve soil organic matter content;
- (b) Provide for pest management in annual and perennial crops;
- (c) Manage deficient or excess plant nutrients;
- (d) Provide erosion and salinization control.

### **3.9 Crop Pest, Weed, and Disease Management Practice Standard**

- (a) The producer must use management practices to prevent crop pests, weeds, and diseases including as below but not limited to:
  - (1) Crop rotation and soil and crop nutrient management practices, as provided for in 3.4 and 3.6.
  - (2) Sanitation measures to remove disease vectors, weed seeds, and habitat for pest organisms; and
  - (3) Cultural practices that enhance crop health, including selection of plant species and varieties with regard to suitability to site-specific conditions and resistance to prevalent pests, weeds, and diseases.
- (b) Pest problems may be controlled through mechanical or physical methods including as below but not limited to:
  - (1) Expansion or introduction of predators or parasites of the pest species;
  - (2) Development of habitat for natural enemies of pests;
  - (3) Non-synthetic controls such as lures, traps, and repellents.
- (c) Weed problems may be controlled through:
  - (1) Mulching with fully biodegradable materials;
  - (2) Mowing;
  - (3) Livestock grazing;
  - (4) Hand weeding and mechanical cultivation;
  - (5) Plastic or other synthetic mulches: Provided that, only polyethylene (PE) allowed and they are removed from the field at the end of the growing or harvest season. Polyvinyl chloride (PVC) products are prohibited.



- (d) Disease problems may be controlled through:
  - (1) Management practices which suppress the spread of disease organisms; or
  - (2) Application of non-synthetic biological, botanical, or mineral inputs.
- (e) When the practices provided for in paragraphs (a) through (d) of this section are insufficient to prevent or control crop pests, weeds, and diseases, a biological or botanical substance, or substance included on Appendix 6, Table 1 allowed for use in organic crop production may be applied. Provided that application of each allowed synthetic substance shall be recorded and documented.
- (f) The producer must not use lumber treated with arsenate or other prohibited materials for new installations or replacement purposes in contact with soil.
- (g) Any formulated input shall have only active ingredients listed in Appendix 6, Table 1. All other ingredients shall not be carcinogens, teratogens, mutagens, or neurotoxins.

### **3.10 Wild-crop Harvesting Practice Standard**

- (a) A wild crop that is intended to be sold, labeled, or represented as “organic” or “organic in-conversion”, must be harvested from a designated area that has had no prohibited substance or environmental pollution applied as mentioned in 2.4, for a period of 2 years and above before the harvest of the wild crop.
- (b) A wild crop must be harvested in a manner that ensures that such harvesting or gathering will not be harmful to the

environment. It should also sustain the growth and production of the wild crop.

### **3.11 Organic Handling Requirements**

- (a) The preparation of processed organic food shall be kept separate in time or space from non-organic food.
- (b) Substances and techniques that reconstitute properties that are lost in the processing and storage of organic food, that correct the results of negligence in the processing of these products or that otherwise may be misleading as to the true nature of these products shall not be used.
- (c) Additives, processing aids and other substances and ingredients used for processing food and any processing practice applied, such as smoking, shall respect the principles of good manufacturing practice (GMP).
- (d) The operator shall establish and update appropriate sanitation and waste management plan in order to maintain the cleanliness of facilities, equipment and sites.
- (e) Any waste brought into the production process shall not have a negative impact on the ecological environment.
- (f) Water and substances that appear in Appendix 6, Table 2, may be used as equipment cleansers and equipment disinfectants that may come into direct contact with the product. Operations that use other cleaners, sanitizers, and disinfectants on product contact surfaces shall use them in a way that does not contaminate the product. The operator shall perform an intervening event between the use of any cleaner, sanitizer, or disinfectant



and the contact of organic product with that surface sufficient to prevent residual contamination of that organic product.

- (g) An “Organic In-Conversion” product shall not be sold, processed or labeled as "organic". This type of agricultural product is only allowed to be sold as raw or labeled with “Organic In-Conversion” and not applicable in section 3.11 (c) and (d).
- (h) Mechanical or biological methods, including but not limited to cooking, baking, curing, heating, drying, mixing, grinding, churning, separating, distilling, extracting, cutting, fermenting, eviscerating, preserving, dehydrating, freezing, chilling, or otherwise manufacturing, and the packaging, canning, jarring, or otherwise enclosing food in a container. The above methods may be used to process an organically produced agricultural product for the purpose of retarding spoilage or otherwise preparing the agricultural product for market.
- (i) Substances of certified organic origin must be used if commercially available. If organic sources are not available, natural sources must be used if commercially available. Only if organic and natural sources are not available, synthetic forms of the substances listed in Appendix 6 Table 1 may be used. Provisions in 4.2 (b) apply.
- (j) Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used unless their use is legally required or where severe dietary or nutritional deficiency can be demonstrated in the market to which the particular batch of product is destined.

- (k) The handler of an organic handling operation must not use in or on agricultural products intended to be sold, labeled, or represented as “100% organic” or "organic" or in or on any ingredients labeled as organic:
  - (1) Practices prohibited on 2.4 (e).
  - (2) A volatile synthetic solvent or other synthetic processing aid not listed in Appendix 6 Table 1.

**3.12 Facility Pest Management Practice Standard**

- (a) The producer or handler of an organic facility must use management practices to prevent pests, including but not limited to:
  - (1) Removal of pest habitat, food sources, and breeding areas;
  - (2) Prevention of access to handling facilities; and
  - (3) Management of environmental factors, such as temperature, light, humidity, atmosphere, and air circulation, to prevent pest reproduction.
- (b) Pests may be controlled through:
  - (1) Mechanical or physical controls including but not limited to traps, light, or sound; or
  - (2) Lures and repellents using nonsynthetic or synthetic substances listed in Appendix 4.
- (c) If the practices provided for in paragraphs (a) and (b) of this section are not effective to prevent or control pests, substances listed in Appendix 6, Table 2 may be applied.
- (d) If the practices provided for in paragraphs (a), (b), and (c) of this section are not effective to prevent or control facility



pests. A synthetic substance not listed in Appendix 6 Table 2 may be applied. Under the condition that the handler and certifying agent agree on the substance, method of application, and measures to be taken to prevent contact of the organically produced products or ingredients with the substance used.

- (e) The handler of an organic handling operation who applies a non-synthetic or synthetic substance to prevent or control pests must document the use of such substances and methods of application. The updated organic plan must include a list of all measures taken to prevent contact of the organically produced products or ingredients with the substance used.

### **3.13 Commingling and Contact with Prohibited Substance Prevention Practice Standard**

- (a) The handler of an organic handling operation must implement measures necessary to prevent the commingling of organic and nonorganic products and protect organic products from contact with prohibited substances.
- (b) The following are prohibited for use in the handling of any organically produced agricultural product or ingredient labeled in accordance with Part 4 of this standard:
  - (1) Packaging materials, and storage containers, or bins that contain a synthetic fungicide, preservative, or fumigant;
  - (2) Packaging materials that contain PVC.
  - (3) The use or reuse of any bag or container that has been in contact with any substance in such a manner as to compromise the organic integrity of any organically produced product or

ingredient placed in those containers, unless such reusable bag or container has been thoroughly cleaned and poses no risk of contact of the organically produced product or ingredient with the substance used.

- (c) Where equipment or machinery are used in conventional farming systems, such as spreading equipment, clean-down procedures shall be in place, and recorded, to ensure no contamination may occur to the certified farm.

### **3.14 Temporary Variances**

- (a) Temporary variances from the requirements in 3.4 through 3.11 may be established by the Administrator for the following reasons:
  - (1) Natural disasters declared by the Secretary;
  - (2) Damage caused by drought, wind, flood, excessive moisture, hail, tornado, earthquake, fire, or other business interruption; and
  - (3) Practices used for the purpose of conducting research or trials of techniques, varieties, or ingredients used in organic production or handling.
- (b) The Administrator will provide written notification to certifying agents upon establishment of a temporary variance applicable to the certifying agent's certified production or handling operations and specify the period of time it shall remain in effect, subject to extension as the Administrator deems necessary.
- (c) A certifying agent, upon notification from the Administrator of the establishment of a temporary variance, must notify each production or handling operation it



certifies to which the temporary variance applies.

- (d) Temporary variances will not be granted for any practice, material, or procedure prohibited under part 2.4

## **4.0 Organic Processing, Packaging and Distribution**

### **4.1 Basic Requirement**

According to the Malaysian Food Act, packaging and processing farms/plants must apply for the following permits:

- (a) Kementerian Kesihatan Malaysia (KKM)
- (b) Suruhanjaya Syarikat Malaysia (SSM)

### **4.2 Climate Conditions**

- (a) There must be no hazardous gases, radioactive substances, diffuse pollution sources, garbage dumps, and potential sites for the breeding of pests around the packaging and processing farms/plants.
- (b) A sanitation and waste management plan should be put in place to maintain the cleanliness of the equipment, facilities, and premises.
- (c) The basic facilities of packaging and processing farms/plants, including washrooms, changing rooms, or storage rooms, etc., must be kept clean and odor-free.
- (d) Smoking is prohibited within 10 metres in and around the packaging and processing farms/plants.

### **4.3 Pest Control**

- (a) Prioritize the following precautions:
  - (1) Removal of pest habitat, food sources, and breeding areas;
  - (2) Prevent pests from entering the packaging or processing facilities and equipment.
  - (3) Control climate conditions. E.g. The temperature, humidity, light, and air circulation needed to prevent the reproduction of pests.
- (b) Adopt biological, physical, or mechanical control measures. E.g. Insect traps, sticky cardboard, sex pheromones, or solar disinfection, etc.
- (c) If the aforementioned methods to prevent or control pests are ineffective, the substances listed in Appendix 6 - Tables 1 and 2 may be used, or a pest-control plan may be submitted to this company prior to implementation for confirmation of compliance with regulations. The plan must not use radiation, fumigant treatment, or materials and preparations containing genetically modified organisms. Materials and preparations used must not come into direct contact with organic raw materials and final products.

### **4.4 Production Process**

- (a) Operators should take measures to prevent the confusion of organic and non-organic agricultural products as well as to avoid contact between organic agricultural products and prohibited substances.
- (b) Organic agricultural products should be produced at independent workplace. If the production workplace is shared with general products, its equipment, facilities, and



premises must be thoroughly cleaned and clearly segregated through time with organic and general products produced in sequence.

- (c) It is advisable to adopt biological, physical, or mechanical methods of production based on the principle of maintaining the natural ingredients and nutritional value of organic agricultural products.
- (d) Fumigants, radiation treatment, and filtration equipment that may contain or produce harmful substances must not be used in the production process.
- (e) The waste generated during the production process must not have a negative impact on the ecological environment.
- (f) The food manufacturing process planning should comply with the principles of hygiene and safety to avoid food contamination.
- (g) The containers, equipment, and utensils used in the manufacturing process should be operated, used, and maintained in such a way as to avoid food contamination.
- (h) Effective measures should be taken to prevent metals and other impurities from getting mixed in with the food.
- (i) Those in charge of regulating the temperature, humidity, pH value, water activity, pressure, flow rate, or time, etc. of the production process should establish relevant control benchmarks and methods, regularly calibrate the equipment and apparatuses used during the production process, and make accurate records as such.

- (j) To correct and prevent the recurrence of any abnormalities during the production and quality-management processes, measures should be established and recorded.

#### **4.5 Raw Materials**

- (a) The organic raw material content of organic-certified processed products should not be lower than 95% (inclusive).
- (b) The same organic raw material must not be used in combination with organic, organic-in-conversion, and non-organic sources at the same time.
- (c) The use of substances listed in Appendix 6 - Table 1 is permitted in accordance with prescribed principles and at the minimum amount required for production.
- (d) The water (including the water and ice cubes used in direct contact with food and for washing food equipment and utensils) and edible salt used during the production process must comply with Appendix 7 - Table 1: Drinking Water Quality Standard as well as related hygiene standards.
- (e) Those using non-tap-water sources (such as groundwater or spring water, etc.) should set up disinfection or water-purification facilities as well as designate special personnel to effectively measure residual chlorine and pH values every day during the production period. In addition, microbial samples must be sent to the testing agency recognized by this company for testing every year; for heavy metals, every two years.
- (f) If a boiler is used in the production process, the boiler room should be isolated from the processing workplace, and there should be



a fixed place for the fuel stack; if steam is in direct contact with the food, the water treatment agent, etc., used in the boiler must comply with food hygiene and safety.

- (g) Minerals (including trace elements), vitamins, amino acids, and automatic- or plant-separated pure substances are prohibited except for substances required by law, the substances listed in Appendix 6 - Table 1, or substances approved for use in products severely lacking in nutrients by the company following review.
- (h) Raw materials, food additives, and other substances containing genetically modified organisms are prohibited from use.
- (i) When organic raw materials can be obtained, non-organic raw materials must not be used for production. When organic raw materials cannot be obtained, other organic raw materials with the same function should be used. When other organic raw materials with the same function cannot be obtained, non-organic natural raw materials can be used. The company will make a judgment on whether organic raw materials can be obtained based on the formula provided by the agricultural product operator and the information from relevant websites. Non-organic raw materials may be used only after the company confirms that they comply with regulations.
- (j) When declaring certified or imported raw materials, supporting documents that are sufficient to prove the contents should be provided. For organically grown raw materials, an organic certificate issued by an organic certification agency must be provided. For imported raw materials, an organic certificate issued by an agency

recognized by the government must be provided.

- (k) Imported raw materials must not be moved, activated, or sold without an import permit or relevant informed consent documents.
- (l) Clients must set up supplier-management procedures and inspection frequency as well as implement and record them.
- (m) The use of raw materials must be handled in accordance with the first-in, first-out principle and must not be used after the expiry date. When only sub-packaging or re-packaging has been carried out, the expiry date on the product must be consistent with the expiry date indicated on the original packaging. If the original shelf life of the product has been shortened or extended due to the re-packaging method or the new packaging material, scientific basis should be provided.
- (n) The raw materials used must be fresh, harmless, and non-toxic (e.g. free of parasites and impurities) as well as possessing relevant information or records that will allow them to be traced back to their source. Raw materials of unknown origin or with unclear labelling must not be used.
- (o) When stocking raw materials, acceptance procedures should be implemented and recorded. Products that fail to pass the acceptance procedures should be marked clearly and handled properly to avoid misuse.

#### **4.6 Health and Safety Management**

- (a) Equipment and appliances should comply with the following regulations:



- (1) Food-contact surfaces should be kept clean, smooth, and free of dents or cracks.
  - (2) Equipment and appliances used for manufacturing, processing, allocation, packaging, and circulation should be checked for cleanliness before use as well as cleaned after use; equipment and utensils that have been cleaned and sterilized should be stored safely and securely to avoid recontamination.
- (b) Practitioners should meet the following requirements:
- (1) New recruits should be examined and qualified by health facilities before they are hired. Health examinations should be voluntarily undertaken every year after employment with the relevant documentation preserved.
  - (2) When infected with Hepatitis A, tuberculosis, typhoid fever, sores, rashes, skin conditions on the hands, external injuries, or other conditions that may cause food contamination, practitioners should volunteer the information to their supervisors and refrain from engaging in work activities that involve food contact.
  - (3) Workers within food workplaces should wear clean work caps and clothing while working to prevent hairs, dandruff, and other impurities from falling into the food. Where necessary, masks should be worn. All workers who come into direct contact with food must avoid keeping long fingernails, wearing accessories, and wearing nail polish, etc., or allowing cosmetics and medication applied to the skin to contaminate food or food-contact surfaces.
  - (4) All practitioners are required to receive typhoid vaccines every three years,

with the relevant data being recorded and maintained.

- (c) Management of tools and chemical substances used for cleaning and disinfection:
  - (1) Cleaning agents and disinfectants should be clearly labelled, stored in a fixed place, and used only in accordance with the regulations of the relevant competent authorities. They must not contaminate food or food-contact surfaces, and a specific person should be designated to manage and record their dosages.
  - (2) Except for the medicaments that must be used to maintain hygiene, no other medicaments should be used or stored within the food workplaces.

#### **4.7 Packaging**

- (a) Packaging methods should be simple. Over-packaging should be avoided, and product contents should be impossible to replace without opening or breaking the package seal.
- (b) Packaging materials must effectively prevent the mixing of organic and non-organic products/raw materials in addition to protecting organic products/raw materials from contact with prohibited substances.
- (c) Biodegradable, recyclable, or re-manufacturable packaging materials should be used. General packaging materials may be used when the aforementioned packaging materials are unavailable or inapplicable with the exception of prohibited packaging components as listed in 4.7 (d).



- (d) The following are prohibited:
  - (1) Packaging materials containing synthetic fungicides, pesticides, preservatives, fumigants, migratory fluorescent agents, prohibited substances, and other components that may contaminate the product;
  - (2) Packaging materials that contain PVC.
  - (3) Packaging materials containing chemical substances;
  - (4) Use or reuse of packaging materials that have come into contact with any substance resulting in the destruction of the organic integrity of the organic products or ingredients that are placed within these containers, unless these reusable bags or containers have been thoroughly cleaned and effectively sterilized where necessary to the extent that there is no risk of the organic products or ingredients coming into contact with the used substances.
- (e) As much as is possible, adhesives and printing inks that are harmless to the human body should be used.
- (f) Packaging material stores should be kept clean and hygienic to avoid product contamination.

#### **4.8 Storage**

- (a) Organic and organic-in-conversion products (hereinafter collectively referred to as ‘organic products’) must not be contaminated by other substances during the storage process. Stores must be clean, hygienic, and brightly lit to prevent the entry of pests and ensure that no harmful substances remain.
- (b) In addition to room-temperature storage, climate-control methods involving

humidity, temperature, and air flow may be used for storage.

- (c) When organic products are stored in the same warehouse as non-organic products, they should be segregated and clearly labelled to avoid product confusion as well as properly stored so as to facilitate product-tracing and identification.

#### **4.9 Transportation and Distribution**

- (a) Means of transport should be cleaned and kept clean before the loading of organic products. Contamination should be avoided during transport.
- (b) Organic products or raw materials should be sealed or covered before transport to avoid cross-contamination. Production source and contact information should be clearly indicated.
- (c) The following are prohibited:
  - (1) Materials containing synthetic fungicides, pesticides, preservatives, fumigants, migratory fluorescent agents, prohibited substances, and other components that may contaminate the product;
  - (2) Materials that contain PVC.
  - (3) Materials containing chemical substances;
  - (4) Use or reuse of materials that have come into contact with any substance resulting in the destruction of the organic integrity of the organic products or ingredients that are placed within these containers, unless these reusable bags or containers have been thoroughly cleaned and effectively sterilized where necessary to the extent that there is no risk of the organic



products or ingredients coming into contact with the used substances.

- (d) During the transportation and distribution of organic products, the labels and relevant instructions on the outer packaging of the products must not be damaged.
- (e) When organic and non-organic products are transported and distributed together, organic and non-organic products/raw materials must be effectively prevented from mixing together. In addition, organic products/raw materials must be protected from contact with prohibited substances.
- (f) When organic and non-organic products are transported or distributed together, products must be packaged properly and labelled clearly to avoid product confusion.
- (e) The handling of damaged and discarded labels should be documented and recorded.
- (f) Record-keeping should backtrack from product to raw material in order to ensure the balance of incoming organic raw materials and outgoing organic products.
- (g) Relevant records and documentation should be kept of the sales of each batch of finished products.
- (h) A plan for product recall and destruction should be established, and recall management as well as review of the production process should be documented to facilitate checking.
- (i) Records of all customer complaints, grievances, and redressals as well as documentation of the relevant handling procedures should be provided.

#### **4.10 Documentation**

- (a) An organic-integrity operating procedure book must be established in addition to relevant records and vouchers, including records of stock purchase, processing, packaging, labelling, storage, transportation, and sales, etc.
- (b) A tracking or traceability system should be established to monitor the source and flow of raw materials, semi-finished products, and finished products.
- (c) Data should be provided on product source, conversion rate, and wastage rate.
- (d) Records should be kept of pest-control methods, cleaning and management of equipment, workplaces, and facilities, as well as storage of raw materials and products.
- (j) Relevant records, documentation, and electronic files or databases should be kept for at least 5 years.

#### **5.0 Labels, Labeling, and Market Information**

##### **5.1 Use of the Term, "Organic" and "Organic In-Conversion"**

- (a) The term, "organic" may only be used on labels and in labeling of raw or processed agricultural products, including ingredients, that have been produced and handled in accordance with the regulations in this part. The term, "organic," may not be used in a product name to modify a nonorganic ingredient in the product.
- (b) The term of "organic in-conversion" can only be used on labels and labeling of raw



agricultural products, that have been produced and handled in accordance with the regulations in this part and excluding from parts 5.2 through 5.6.

- (c) Products for export, produced and certified to foreign national organic standards or foreign contract buyer requirements, may be labeled in accordance with the organic labeling requirements of the receiving country or contract buyer: Provided, that, the shipping containers and shipping documents meet the labeling requirements specified in 5.7.
- (d) Products produced in a foreign country and imported for sale in the Malaysia must be certified pursuant to part 6 of this standard and labeled pursuant to part 5 of this standard.

## **5.2 Product Composition**

- (a) Products sold, labeled, or represented as "100% organic." A raw or processed agricultural product sold, labeled, or represented as "100% organic" must contain (by weight or fluid volume, excluding water and salt) 100% organically produced ingredients. If labeled as organically produced, such product must be labeled pursuant to 5.4.
- (b) Products sold, labeled, or represented as "organic". A raw or processed agricultural product sold, labeled, or represented as "organic" must contain (by weight or fluid volume, excluding water and salt) not less than 95% organically produced raw or processed agricultural products. Any remaining product ingredients must be organically produced, unless not commercially available in organic form, or must be consistent with the list in

Appendix 6 Table 1 of this standard. If labeled as organically produced, such product must be labeled pursuant to 5.4.

- (c) All products labeled as "100% organic" or "organic" and all ingredients identified as "organic" in the ingredient statement of any product must not:
  - (1) Be produced using sewage sludge, according to 2.4(g);
  - (2) Be processed using ionizing radiation, according to 2.4(f);
  - (3) Be processed using processing aids not approved on the list of allowed substances in Appendix 6 Table 1 of this standard: Except, that, products labeled as "100% organic," if processed, must be processed using organically produced processing aids;
  - (4) Contain sulfites, nitrates, or nitrites added during the production or handling process, Except that, wine containing added sulfites may be labeled "made with organic grapes";
  - (5) Be produced using nonorganic ingredients when organic ingredients are available; or
  - (6) An organic ingredient shall not be present together with the same ingredient in non-organic form or an ingredient in conversion.

## **5.3 Calculating the Percentage of Organically Produced Ingredients**

- (a) The percentage of all organically produced ingredients in an agricultural product sold, labeled, or represented as "100% organic" or "organic" that includes organic ingredients must be calculated by:
  - (1) Dividing the **total net weight** (excluding water and salt) of combined organic ingredients at formulation by



the total weight (excluding water and salt) of the ingredients.

- (2) Dividing the **fluid volume** of all organic ingredients (excluding water and salt) by the fluid volume of the ingredients (excluding water and salt) if the product and ingredients are liquid. If the liquid product is identified on the principal display panel or information panel as being reconstituted from concentrates, the calculation should be made on the basis of single-strength concentrations of the ingredients and finished product.
  - (3) For products containing organically produced ingredients in both solid and liquid form, dividing the combined weight of the solid ingredients and the weight of the liquid ingredients (excluding water and salt) by the total weight (excluding water and salt) of the ingredients.
- (b) The percentage of all organically produced ingredients in an agricultural product must be rounded down to the nearest whole number.
  - (c) The percentage must be determined by the handler who affixes the label on the consumer package and verified by the certifying agent of the handler. The handler may use information provided by the certified operation in determining the percentage.
  - (d) The raw materials in transition period shall not be included in the calculation of the percentage of organic raw materials.
  - (e) If the agricultural products in transition period are used as raw materials, and the total content ratio of organic and organic

transition period raw materials is not less than 95%, the product name should be marked with the words "Organic-in-Conversion".

#### **5.4 Packaged Products Labeled "100% Organic" or "Organic."**

- (a) Agricultural products in packages described in 5.2 (a) and (b) may display, on the principal display panel, information panel, and any other panel of the package and on any labeling or market information concerning the product, the following:
  - (1) The term, "100% organic" or "organic" as applicable, to modify the name of the product;
  - (2) The term, "organic" to identify the organic ingredients in multi-ingredient products labeled "100% organic";
- (b) Products in packages described in 5.2 (a) and must:
  - (1) For products labeled "organic," identify each organic ingredient in the ingredient statement with the word, "organic," or with an asterisk or other reference mark which is defined below the ingredient statement to indicate the ingredient is organically produced. The ingredients shall be listed on the label. Water or salt included as ingredients cannot be identified as organic.

#### **5.5 Agricultural Products in Other than Packaged Form at The Point of Retail Sale That Are Sold or Labeled as "100% Organic" or "Organic".**

- (a) Agricultural products in other than packaged form may use the term, "100% organic" or "organic", as applicable, to



modify the name of the product in retail display, labeling, and display containers: Provided that the term “organic” is used to identify the organic ingredients listed in the ingredient statement.

- (b) If the product is prepared in a certified facility, the retail display, labeling, and display containers may use:
  - (1) The Earth Tag seal; and
  - (2) The seal, logo, or other identifying mark of the certifying agent that certified the production or handling operation producing the finished product and any other certifying agent which certified operations producing raw organic product or organic ingredients used in the finished product: Provided, that, such seals or marks are not individually displayed more prominently than the Earth Tag seal.

**5.6 Earth Tag Seal**

- (a) The Earth Tag seal of this section may be used only for raw or processed agricultural products.
- (b) The Earth Tag seal must replicate the form and design of the example in figure 1 and must be printed legibly and conspicuously.
- (c) The Earth Tag seal must be used in accordance with [Earth Tag Organic Standard].
- (d) The Earth Tag seals include [Organic] and [Organic In-Conversion] (Figure 1), [Organic in-Conversion] (Including Tse-Xin Organic and Earth Tag) shall be used for Earth Tag certified agricultural products. [Organic In-Conversion] seal shall be used during the in-conversion

period; [Organic] seal shall only be used after upgrading to Organic.

Figure 1: Earth Tag “organic” and “organic in-conversion” seal.



- (e) Each Earth Tag seal must consist of AA (No. of applicant) and BB (Year of application). This number is given once the application is approved and it allowed traceability of each individual producer or handler of agricultural products.
- (f) Terms of use:
  - (1) Earth Tag Seal shall only be used based on the content recorded on the organic certificates (Name of farm, address, certified area and agricultural products) within the efficient period.
  - (2) Use of Earth Tag seal for promotional purposes requires permission from the Earth Tag Authorized Team.
  - (3) The Earth Tag Authorized Team reserves the right to conduct unannounced inspections or sample organic agricultural products if a misuse of the seal by applicants is suspected. If necessary, the use of the seal may be suspended.



- (4) The use of the Earth Tag seal must be accurately and truthfully documented. The Earth Tag Authorized Team reserves the right to suspend use of the seal if any misuse is found, including but not limited to transferring, lending, counterfeiting, or unauthorized use by third parties. The Earth Tag seal (including the logo) and certificate number may only be used by third parties, such as factories, manufacturers, appointed distributors, brand owners for the promotional, documentation, or advertising purposes with prior approval.
- (g) Application and printing of Earth Tag Seal
  - (1) Application form shall be filled by the applicants to apply for the Earth Tag seal and submitted to Earth Tag Authorized Team for review. This shall be listed as checking item during on-site inspection. Other than submitting the application form of the seal, the applicant should also attach documents relating to the intended usage and relevant previous sales statistics to the Earth Tag Authorized Team for review if necessary.
  - (2) Label provided by Earth Tag shall only be used by the certified applicants, and [Record of Usage of Earth Tag Organic/In-Conversion] shall be filled monthly.
- (b) Establish, implement and update an organic production or handling system plan annually and submitted to an accredited certifying agent as provided for in 3.2.
- (c) Allow on-site inspections on the production or handling operation, which include non-certified production and handling areas, structures and offices by the certifying agent as provided in 6.4.
- (d) Maintain all records that are applicable to the organic operation for not less than five years.
- (e) Submit the applicable fees.
- (f) Immediately notify the certifying agent when:
  - (1) Applicants have applied any prohibited substance at certified field, production unit, site, facility, or product that is part of an operation.
  - (2) There are changes in a certified operation that may affect its compliance with the Earth Tag Organic Standard.

## **6.0 Certification**

### **6.1 General Requirement for Certification**

An entity which intends to receive or maintain organic certification must:

- (a) Comply with the standard and applicable organic production.

### **6.2 Application for the Certification**

The applicant must submit an application for the certification to a certifying agent. The application must include:

- (a) An organic production or handling system plan as required in 3.2.
- (b) Applicant's name, business name, addresses and telephone number.
- (c) The name(s) of any previous certifying agent(s) and year(s) of application.



- (d) Applicant must provide a copy of noncompliance or denial of certification issued to the applicant for certification, and a description of the actions taken by the applicant to correct the noncompliance.
- (e) Other information necessary to determine compliance with the regulations.

### **6.3 Review of Application**

When the certifying agent accepts an application for certification, the certifying agent must:

- (a) Review the application to ensure the applicant completes the form pursuant to 6.2.
- (b) Application materials will determine whether the applicant appears to comply with the applicable requirement.
- (c) Verify whether an applicant who previously applied to another certifying agent has submitted documentation to support the correction of any noncompliance identified in the notification of noncompliance pursuant to 6.4.
- (d) Schedule an on-site inspection of the operation to determine if the applicant qualifies for the certification.

After the inspection, the certifying agent must:

- (a) Review the application materials received.
- (b) Provide the applicant with a copy of the test results for any samples taken by an inspector.
- (c) The applicant may withdraw its application at any time. An applicant who withdraws its application shall be liable for the costs of services.

### **6.4 On-Site Inspection**

On Site Inspection:

- (a) Must conduct an initial on-site inspection of each production unit, facility, and site that produces or handles organic products.
- (b) Conducted annually.
- (c) Additional inspection may be announced or unannounced.

Scheduling:

- (a) The initial on-site inspection must be conducted within one month or may be delayed up to six months with conditions.
- (b) On-site inspection must be conducted when an authorized representative of the operation is present.

Verification of information:

- (a) The operation must comply with the regulation.
- (b) The information which includes the organic production or handling system plan provided in accordance with 6.2, 6.7 and 3.2.
- (c) Prohibited substances are not applied in the operation which can be verified through collection and testing of soil, water, waste, seeds, and plant tissue.

Exit interview:

- (a) The inspector must conduct an exit interview with an authorized representative of the operation who is knowledgeable about the inspected operation to confirm the accuracy and completeness of inspection observations and information gathered during the on-site inspection. The



inspector must also address the need for any additional information as well as any issues of concern.

Documents to the inspected operation:

- (a) The inspector needs to provide a receipt for any samples taken by the inspectors.
- (b) The samples taken are not charged to the inspector.

### **6.5 Granting Certification**

After completion of the initial on-site inspection, certifying agent must review on-site inspection report, the results of any analyses conducted, and any additional information supplied by the applicant within three months.

If the organic system plan and all the procedures and activities of the applicant's operation are in compliance with the requirements, the agent shall grant certification. The certifying agent must issue a certificate of organic operation which includes:

- (a) Name and address of the certified operation.
- (b) Effective date of certification
- (c) Categories of organic operation, including crops, wild crops, or processed products produced by the certified operation.
- (d) Name, address and telephone number of the certifying agent.

Once certified, a production or handling operation's organic certification continues in effect until surrendered by the organic operation or suspended or revoked by the certifying agent or the Administrator.

### **6.6 Denial of Certification**

If the certifying agent has reason to believe that the applicant is not in compliance with the requirements for certification based on 6.3 or 6.5 then the certification agent must provide a written notification of noncompliance to the applicant.

The notification of noncompliance shall include:

- (a) A description of each noncompliance.
- (b) The fact upon which the notification of noncompliance is based.
- (c) The date(s) for the applicant to correct each noncompliance.
- (d) Submit supporting document(s) for each corrective action is done.

When the applicant receives notification of noncompliance, applicant may:

- (a) Correct the noncompliance and submit support documentation of a description of the corrective actions taken to the certifying agent.
- (b) Submit written information to the certifying agent to oppose the noncompliance.

After certifying agent receives the notification of noncompliance from applicant, certifying agent must:

- (a) Evaluate the corrective actions taken and supporting documentation submitted by the applicant.
- (b) If necessary, conduct another on-site inspection to verify the corrective actions.



- (c) When the corrective action is sufficient for the applicant to qualify for certification, the certifying agent can issue an approval of certification pursuant to 6.5.
- (d) When the corrective action is not sufficient for the applicant to qualify for certification, certifying agent must issue a written notice of denial of certification.
- (e) Issue a written notice of denial of certification to applicant who fails to respond to the notification of noncompliance.
- (f) Provide a notice of approval or denial to the administrator pursuant to 6.1

A notice of denial of certification must state the reasons for denial and the applicant has the right to:

- (a) Reapply for certification pursuant to 6.2 and 6.6.
- (b) Request mediation pursuant to 7.4.
- (c) File an appeal of the denial of certification pursuant to 7.10.

An applicant who has received a written notice of denial of certification may apply for certification again at any time with any certifying agent in accordance with 6.2 and 6.6. Applicant must include a copy of the notification of noncompliance or notice of denial and a description of the actions taken.

A certifying agent must treat the application as new application and begin new application process pursuant to 6.3, when receiving an application with a notification of noncompliance or a notice of denial of certification.

Certifying agent may deny certification if an applicant is found to have made a false statement.

### **6.7 Continuation of Certification**

- (a) In order to continue certification, a certified operation must annually pay the certification fees and submit the following information to the certifying agent:
  - (1) An updated organic production or handling system plan which includes:
    - (i) A summary statement, supported by documentation, detailing of any deviations from, changes to, modifications to, or other amendments made to the previous year's organic system during the previous year.
    - (ii) Any additions or deletions to the previous year's organic system plan, plan to be undertaken in the coming year, detailed pursuant to 3.1.
  - (2) An update on the correction of minor noncompliance previously identified by certifying agent.
  - (3) Other information as deemed necessary by the certifying agent.
- (b) The certifying agent shall arrange a reasonable time and conduct on-site inspection.
- (c) If the certifying agent has reason to believe, based on the on-site inspection and a review of the information specified in 6.5, that a certified operation is not complying with the requirement of the regulations in this part, the certifying agent shall provide a written notification of noncompliance to the operation in accordance with 7.3.



If the certifying agent determines that the certified operation is complying with the regulation in this part and any of the information specified on the certificate of organic operation has changed, the certifying agent must issue an updated certificate of organic operation pursuant to 6.5.

**7.0 Social Justice**

- (a) All employment conditions shall comply with local and national regulations.
- (b) If on-site living quarters are provided to employees, basic amenities and facilities shall be provided, such as potable drinking water, latrines or toilets, a clean place to eat, adequate protective equipment and access to adequate medical care.
- (c) Any types of forced or involuntary labor shall not be used.
- (d) Employees and contracted workers shall have freedom to associate and the rights to organize as well as bargain collectively.
- (e) Employee and contracted workers shall be provided equal opportunities and treatment, and shall not be subjected to discrimination.
- (f) Child labor is strictly not allowed. Children shall only be allowed to experience work on their family’s farm and/or neighboring farm provided that:
  - (1) Such work is not hazardous or dangerous to their safety and health.
  - (2) Such work does not jeopardize the educational, social, moral and physical development of children.
  - (3) Children shall be supervised by adults or shall have authorization from legal

guardian.

- (g) All employees shall be provided written terms and conditions of employment. The term and conditions must include:
  - (1) Wages, frequency and method of payment
  - (2) Location, type and working hours
  - (3) Safety and health procedures
  - (4) Employment conditions including discipline and termination procedures.
  - (5) Employee benefits

**Part 7.1 – 7.5 Compliance**

**7.1 General**

- (a) The Earth Tag Management Representative, on behalf of the Secretary, may inspect and review certified production and handling operations and accredited certifying agents for compliance with the regulations in this part.
- (b) The Earth Tag Management Representative may initiate suspension or revocation proceedings against a certified operation:
  - (1) When the Earth Tag Management Representative has reason to believe that a certified operation has violated or is not in compliance with the regulations in this part; or
  - (2) When a certifying agent fails to take appropriate action to enforce the regulations in this part.
- (c) The Earth Tag Management Representative may initiate suspension or revocation of a certifying agent's accreditation if the certifying agent fails to meet, conduct, or maintain accreditation requirements pursuant to the regulation in this part.



- (d) Each notification of noncompliance, rejection of mediation, noncompliance resolution, proposed suspension or revocation, and suspension or revocation issued pursuant to 7.3, 7.4 and 7.5 and each response to such notification must be sent to the recipient's place of business via a delivery service which provides dated return receipts.

## **7.2 Investigation of Certified Operations**

- (a) A certifying agent may investigate complaints of noncompliance with the regulations of this part concerning production and handling operations certified as organic by the certifying agent. A certifying agent must notify the Administrator of all compliance proceedings and actions taken pursuant to this part.
- (b) The Administrator may investigate complaints of noncompliance with the regulations in this part concerning organic production or handling operations operating in the country.

## **7.3 Noncompliance Procedure for Certified Operations**

- (a) *Notification.* When an inspection, review, or investigation of a certified operation by a certifying agent reveals any noncompliance with the regulations in this part, a written notification of noncompliance shall be sent to the certified operation. Such notification shall provide:
  - (1) A description of each noncompliance;
  - (2) The facts upon which the notification of noncompliance is based; and
  - (3) The date by which the certified operation must rebut or correct each noncompliance and submit supporting

documentation of each such correction when correction is possible.

- (b) *Resolution.* When a certified operation demonstrates that each noncompliance has been resolved, the certifying agent, as applicable, shall send the certified operation a written notification of noncompliance resolution.
- (c) *Proposed suspension or revocation.* When rebuttal is unsuccessful or correction of the noncompliance is not completed within the prescribed time period, the certifying agent shall send the certified operation a written notification of proposed suspension or revocation of certification of the entire operation or a portion of the operation, as applicable to the noncompliance. When correction of a noncompliance is not possible, the notification of noncompliance and the proposed suspension or revocation of certification may be combined in one notification. The notification of proposed suspension or revocation of certification shall state:
  - (1) The reasons for the proposed suspension or revocation;
  - (2) The proposed effective date of such suspension or revocation;
  - (3) The impact of a suspension or revocation on future eligibility for certification; and
  - (4) The right to request mediation or to file an appeal.
- (d) *Willful violations.* Notwithstanding paragraph (a) of this section, if a certifying agent has reason to believe that a certified operation has willfully violated the regulations in this part, the certifying agent shall send the certified operation a notification of proposed suspension or revocation of certification of the entire



operation or a portion of the operation, as applicable to the noncompliance.

*(e) Suspension or revocation.*

- (1) If the certified operation fails to correct the noncompliance, to resolve the issue through rebuttal or mediation, or to file an appeal of the proposed suspension or revocation of certification, the certifying agent shall send the certified operation a written notification of suspension or revocation.
- (2) A certifying agent or Administration must not send a notification of suspension or revocation to a certified operation that has requested mediation or filed an appeal, while final resolution of either is pending.

*(f) Eligibility.*

- (1) A certified operation whose certification has been suspended under this section may at any time, unless otherwise stated in the notification of suspension, submit a request to the Secretary for reinstatement of its certification. The request must be accompanied by evidence demonstrating correction of each noncompliance and corrective actions taken to comply with and remain in compliance with the regulations in this part.
- (2) A certified operation or a person responsibly connected with an operation whose certification has been revoked will be ineligible to receive certification for a period of 5 years following the date of such revocation, *Except*, That, the Secretary may, when in the best interest of the certification program, reduce or eliminate the period of ineligibility.

## **7.4 Mediation**

Any dispute with respect to denial of certification or proposed suspension or revocation of certification under this part may be mediated at the request of the applicant for certification or certified operation and with acceptance by the certifying agent. Mediation shall be requested in writing to the applicable certifying agent. If the certifying agent rejects the request for mediation, the certifying agent shall provide written notification to the applicant for certification or certified operation. The written notification shall advise the applicant for certification or certified operation of the right to request an appeal, pursuant to 7.10, within 30 days of the date of the written notification of rejection of the request for mediation. If mediation is accepted by the certifying agent, such mediation shall be conducted by a qualified mediator mutually agreed upon by the parties to the mediation. The parties to the mediation shall have no more than 30 days to reach an agreement following a mediation session. If mediation is unsuccessful, the applicant for certification or certified operation shall have 30 days from termination of mediation to appeal the certifying agent's decision pursuant to 7.10. Any agreement reached during or as a result of the mediation process shall be in compliance with the regulations in this part. The Secretary and or the Administrator may review any mediated agreement for conformity to the regulations in this part and may reject any agreement or provision not in conformance with the regulations in this part.

## **7.5 Noncompliance Procedure for Certifying Agents**

- (a) *Notification.* When an inspection, review, or investigation of an accredited certifying



agent by the Earth Tag Management Representative reveals any noncompliance with the regulations in this part, a written notification of noncompliance shall be sent to the certifying agent. Such notification shall provide:

- (1) A description of each noncompliance;
- (2) The facts upon which the notification of noncompliance is based; and
- (3) The date by which the certifying agent must rebut or correct each noncompliance and submit supporting documentation of each correction when correction is possible.

(b) *Resolution.* When the certifying agent demonstrates that each noncompliance has been resolved, the Earth Tag Management Representative shall send the certifying agent a written notification of noncompliance resolution.

(c) *Proposed suspension or revocation.* When rebuttal is unsuccessful or correction of the noncompliance is not completed within the prescribed time period, the Earth Tag Management Representative shall send a written notification of proposed suspension or revocation of accreditation to the certifying agent. The notification of proposed suspension or revocation shall state whether the certifying agent's accreditation or specified areas of accreditation are to be suspended or revoked. When correction of a noncompliance is not possible, the notification of noncompliance and the proposed suspension or revocation may be combined in one notification. The notification of proposed suspension or revocation of accreditation shall state:

- (1) The reasons for the proposed suspension or revocation;

- (2) The proposed effective date of the suspension or revocation;
- (3) The impact of a suspension or revocation on future eligibility for accreditation; and
- (4) The right to file an appeal pursuant to 7.10.

(d) *Willful violations.* Notwithstanding paragraph (a) of this section, if the Earth Tag Management Representative has reason to believe that a certifying agent has willfully violated the regulations in this part, the Earth Tag Management Representative shall send a written notification of proposed suspension or revocation of accreditation to the certifying agent.

(e) *Suspension or revocation.* When the accredited certifying agent fails to file an appeal of the proposed suspension or revocation of accreditation, the Earth Tag Management Representative shall send a written notice of suspension or revocation of accreditation to the certifying agent.

(f) *Cessation of certification activities.* A certifying agent whose accreditation is suspended or revoked must:

- (1) Cease all certification activities in each area of accreditation and in the country for which its accreditation is suspended or revoked.
- (2) Transfer to the Secretary and make available to the Secretary and or the Administrator all records concerning its certification activities that were suspended or revoked.

(g) *Eligibility.*

- (1) A certifying agent whose accreditation is suspended by the Secretary under this section may at any time, unless



otherwise stated in the notification of suspension, submit a request to the Secretary for reinstatement of its accreditation. The request must be accompanied by evidence demonstrating correction of each noncompliance and corrective actions taken to comply with and remain in compliance with the regulations in this part.

- (2) A certifying agent whose accreditation is revoked by the Secretary shall be ineligible to be accredited as a certifying agent under the regulations in this part for a period of not less than 3 years following the date of such revocation.

**Part 7.6 – 7.8 Inspection and Testing, Reporting, and Exclusion from Sale**

**7.6 Inspection and Testing of Agricultural Product to be Sold or Labeled “Organic.”**

- (a) All agricultural products that are to be sold, labeled, or represented as “organic” or “organic-in-conversion” must be made accessible by certified organic production or handling operations for examination by the Administrator, or the certifying agent.
- (b) Where the certified products are less than 95% but not less than 70% weight/weight of all of the ingredients (excluding water and salt), and where the other materials are allowed to be used in the certified processed products under the Standard, the statement “Made with Organic Ingredients” may be used on the label while the Earth Tag Organic or Organic-in-conversion shall not be used in this category.
- (c) The Administrator, or the certifying agent may require pre-harvest or postharvest

testing of any agricultural input used or agricultural product to be sold, labeled, or represented as “organic,” “organic-in-conversion,” or “made with organic ingredient” when there is reason to believe that the agricultural input or product has come into contact with a prohibited substance or has been produced using excluded methods. Such tests must be conducted by the certifying agent at the official's or certifying agent’s own expense. If the prohibited substance is tested positive, the expenses shall be borne by the certified operation.

- (d) The pre-harvest or postharvest tissue test sample collection pursuant to paragraph (b) of this section must be performed by an inspector representing the Administrator, or certifying agent. Sample integrity must be maintained throughout the chain of custody, and residue testing must be performed in an accredited laboratory.
- (e) Results of all analyses and tests performed under this section:
  - (1) Must be promptly provided to the Administrator, or the certifying agent by the applicable certifying party that requested testing; and
  - (2) Will be available for public access, unless the testing is part of an ongoing compliance investigation.
- (f) If test results indicate a specific agricultural product contains pesticide residues or environmental contaminants that exceed the regulatory tolerances, the certifying agent must promptly report such data to the Federal health agency whose regulatory tolerance or action level has been exceeded.



### 7.7 Residue Testing and Compliance Determination

When residue testing detects prohibited substances at levels greater than 5% of the applicable Maximum Residue Limit (MRL) pesticide tolerance, the agricultural product shall not be sold, labeled, or represented as organically produced.

The certifying body shall conduct an investigation to determine the source of the prohibited substance and evaluate the operator's compliance with the Earth Tag Organic Standard.

- (a) *No Residues Detected.* When laboratory analysis indicates that no residues of prohibited substances are detected:
  - (1) The product may be sold, labeled, or represented as organic.
  - (2) The certifying body shall notify the operator of the laboratory test results.
  - (3) The certifying body shall maintain records of the laboratory analysis.
  - (4) The certifying body shall provide the test results to the public upon request, in accordance with applicable transparency and confidentiality requirements.
  
- (b) *Residues Below Quantifiable Levels.* When residues of prohibited substances are detected below the Limit of Detection (LOD) or Limit of Quantification (LOQ), typically  $\leq 0.01$  ppm (10 ppb):
  - (1) The product may be sold or represented as organic.
  - (2) The certifying body shall notify the operator of the laboratory test results.
  - (3) The certifying body shall assess possible sources of the detected residues and follow up with the operator as appropriate.

- (4) Records of laboratory analysis shall be maintained by the certifying body and may be made available upon request in accordance with transparency requirements.

- (c) *Residues Detected at or Below 5% of Applicable MRL.* When residues of prohibited substances are detected at or below 5% of the applicable Maximum Residue Limit (MRL) pesticide tolerance:
  - (1) The certifying body shall notify the operator of the test results.
  - (2) The product may be sold or represented as organic, provided that the residues are not the result of the application of prohibited substances or intentional commingling with non-organic products.
  - (3) The certifying body shall investigate the source of the detected residues.
  - (4) Where residues are determined to result from:
    - Inadequate buffer zones; or
    - Insufficient management practices to prevent contamination or commingling with prohibited substances,

The certifying body shall issue a Notice of Noncompliance and require the operator to implement corrective actions to prevent future contamination.

If evidence indicates intentional application of prohibited substances, the certifying body may propose suspension or revocation of certification in accordance with the certification procedures.

- (d) *Residues Detected Greater than 5% of Applicable MRL.* When residues of prohibited substances are detected greater than 5% of the applicable Maximum



Residue Limit (MRL) pesticide tolerance, but not exceeding the legal tolerance level:

- (1) The product shall not be sold, labeled, or represented as organic.
- (2) The certifying body shall conduct an investigation to determine the source of contamination.
- (3) The certifying body shall issue a Notice of Noncompliance for the presence of prohibited substances exceeding the 5% threshold.
- (4) Where investigation determines that prohibited substances were intentionally applied, the certifying body may propose suspension or revocation of certification in accordance with the Earth Tag certification procedures.

### **7.8 Emergency Pest or Disease Treatment**

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

*Provided, that:*

- (c) Any harvested crop or plant part to be harvested that has contact with a prohibited substance applied as the result of a Federal or State emergency pest or disease treatment program cannot be sold, labeled, or represented as organically produced.

### **Part 7.9 – 7.10 Adverse Action Appeal Process**

#### **7.9 General**

- (a) Persons subject to the Standard who believe that they are adversely affected by a

noncompliance decision of a certifying agent may appeal such decision to the Administrator.

- (b) All written communications between parties involved in appeal proceedings must be sent to the recipient's place of business by a delivery service which provides dated return receipts.
- (c) All appeals shall be reviewed, heard, and decided by persons not involved with the decision being appealed.

#### **7.10 Appeals**

- (a) *Certification appeals.* An applicant for certification may appeal a certifying agent's notice of denial of certification, and a certified operation may appeal a certifying agent's notification of proposed suspension or revocation of certification to the Administrator,

- (1) If the Administrator sustains a certification applicant's or certified operation's appeal of a certifying agent's decision, the applicant will be issued organic certification, or a certified operation will continue its certification, as applicable to the operation. The act of sustaining the appeal shall not be an adverse action subject to appeal by the affected certifying agent.

- (2) If the Administrator denies an appeal, a formal administrative proceeding will be initiated to deny, suspend, or revoke the certification.

- (b) *Filing period.* An appeal of a noncompliance decision must be filed within the time period provided in the letter of notification or within 30 days from receipt of the notification, whichever



occurs later. The appeal will be considered “filed” on the date received by the Administrator. A decision to deny, suspend, or revoke certification or accreditation will become final and non-appealable unless the decision is appealed in a timely manner.

(c) *Where and what to file.*

- (1) Appeals to the Administrator must be filed in writing and addressed to:  
Administrator, Earth Tag Organic Standard, 1384, Atas Lot 841, MK-1, Jalan Tasek, 14120 Simpang Ampat, Seberang Perai Selatan, Penang, Malaysia.
- (2) Appeals must be filed in writing to the address and person identified in the letter of notification.
- (3) All appeals must include a copy of the adverse decision and a statement of the appellant's reasons for believing that the decision was not proper or made in accordance with applicable program regulations, policies, or procedures.

- (d) R307 – General Requirement: Accreditation of ISO/IEC Guide 65 Product Certification Bodies;
- (e) The International Federation of Organic Agriculture Movements (IFOAM) Standards for Organic Production and Processing, version 2018;
- (f) Tse-Xin Organic Certification Corporation “慈心有機驗證作業手冊”;
- (g) USDA National Organic Program Standards (7 CFR Part 205).Version 2018
- (h) Tse-Xin Organic Certification Corporation Certification Operation Manual. Part III Organic (In-Conversion) Products Standard (2 Organic Processing, Packaging and Distribution Standard) 慈心有機驗證作業手冊第三部份有機農產品有機轉型期農產品驗證標準(2 有機加工分裝流通標準)

## 8.0 Disclaimer

If there is any conflict or inconsistency between the Chinese version and the English version, the English version shall be the governing and prevailing version.

## 9.0 References

- (a) Malaysian Standard MS 1529: The Producing, Processing, Labeling, and Marketing of Plant-based organically produced foods;
- (b) National Program on Organic Production (NPOP, India);
- (c) Quality Assurance International (QAI) Program Policies for Organic System Plan Certification;



**APPENDICES**

**Appendix 1: Land Requirement**

- (a) The producers need to prove it has legal rights to the cultivation of the land and all necessary regulatory approvals.

<b>Types</b>	<b>Requirement</b>
Land ownership	Land Grant
Temporary Occupation of Land	Still in validity periods
Rent or Lease Land	Valid Grant or Agreement
Land owned by others	Letter of authorization

**If documents above were unable to be provided,** a statement shall be signed and explained that:

- (1) The farm land is not illegally developed.



**Appendix 2: Maximum heavy metal content limit allowed for irrigation water, and soil.**

**(a) Heavy Metal content limit, pH and conductivity for irrigation water (Water analysis shall be done every 2 years).**

Parameters (Irrigation water)	Unit	Content Limit
Arsenic (As)	mg/L	0.05
Cadmium (Cd)		0.01
Chromium (Cr)		0.1
Copper (Cu)		0.2
Mercury (Hg)		0.002
Nickel (Ni)		0.2
Lead (Pb)		0.1
Zinc (Zn)		2.0
pH	-	5-9
Conductivity	µs/cm	750

**(b) Heavy metal content limit for soil (Soil analysis shall be done every 2 years)**

Parameters (Soil)	Unit	Content Limit
Arsenic (As)	mg/kg	15
Cadmium (Cd)		0.39
Chromium (Cr)		10
Copper (Cu)		20
Mercury (Hg)		0.39
Nickel (Ni)		10
Lead (Pb)		15
Zinc (Zn)		50

**(c) Heavy metal content limit for fresh mushroom samples (Harvest test shall be done every year)**

Parameters (Mushroom)	Unit	Content Limit (Dry weight basis)
Cadmium (Cd)	mg/kg	2
Lead (Pb)		3



### Appendix 3: Evaluation Criteria for Inputs, Additives and Processing Aids for Organic Production and Processing.

The following Appendices contain lists of the synthetic and nonsynthetic inputs, additives, processing aids, and other substances that are allowed and prohibited for use in organic production, handling, and processing under this standard. They are based on the IFOAM Standard for Organic Production and Processing, Version 2014 (part of IFOAM Norms, Version 2014).

Organic agriculture is based on the following general principles: Organic production and processing systems are based on the use of natural, biological, renewable, and regenerative resources. Organic agriculture maintains soil fertility primarily through the recycling of organic matter. Nutrient availability is primarily dependent on the activity of soil organisms. Pests, diseases, and weeds are managed primarily through cultural practices. Organic livestock are nourished primarily through organically produced feed and forage, and are kept in living conditions that allow for natural behavior and avoidance of stress. Organic foods and other products are made from organically produced ingredients that are processed primarily by biological, mechanical, and physical means.

The criteria used to evaluate organic production inputs are based on the following principles:

- **Necessity and alternatives:** Any input used is necessary for sustainable production, is essential to maintain the quantity and quality of the product, and is the best available technology.
- **Source and manufacturing process:** Organic production is based on the use of natural, biological, and renewable resources.
- **Environment:** Organic production and processing is sustainable for the environment.
- **Human health:** Organic techniques promote human health and food safety.
- **Quality:** Organic methods improve or maintain product quality.
- **Social, Economic, and Ethical:** Inputs used in organic production meet consumer perceptions and expectations without resistance or opposition. Organic production is socially just and economically sustainable, and organic methods respect cultural diversity and protect animal welfare.

The Appendices may be amended by the Earth Tag Standard Owner in order to reflect changes in the lists of accepted substances of the IFOAM Standard on Organic Production and Processing or to set additional restrictions based on the conditions of application of substances under the USDA NOP, the EU Organic Regulation or the Malaysian Organic Regulation.

**Appendix 4: List of non-synthetic and synthetic substances allowed for use in organic crop production**

<b>Substances description, compositional requirements</b>	<b>Conditions for use</b>
Algal preparations	As far as obtained by: (i) physical processes including dehydration, freezing and grinding; (ii) extraction with water or potassium hydroxide solutions, provided that the minimum amount of solvent necessary is used for extraction; (iii) fermentation.
Animal preparations and oils	
Aquatic plant extracts (other than hydrolyzed)	Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.
Ammonium carbonate	For use as bait in insect traps only, no direct contact with crop or soil
Aqueous potassium silicate (CAS#-1312-76-1)	The silica, used in the manufacture of potassium silicate, must be sourced from naturally occurring sand
Bacterial preparations (e.g. Bacillus thuringiensis)	
Beeswax	
Biodynamic preparations	
Biodegradable processing by-products of microbial origin, e.g. by-products of brewery or distillery processing	
Biodegradable processing by-products, plant or animal origin, e.g. by-products of food, feed, oilseed, brewery, distillery or textile processing	Free of significant contaminants; or composted before bringing onto organic land and confirmed free of significant contaminants
Blood meal, meat meal, bone, bone meal	
Boric acid	Structural pest control, no direct contact with organic food or crops
Calcium hydroxide (hydrated lime)	For application on aerial plant parts only
Calcium lignosulfonate	
Carbon dioxide	Shall not be the result of burning fuel solely to produce carbon dioxide; allowed only as a by-product of other processes.
Chitin nematicides (natural origin)	Not processed by acid hydrolysis
Chloride of lime (calcium chloride)	
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	
Crop residues and plant materials, mulch, green manure, straw	
Coffee grounds	



<b>Substances description, compositional requirements</b>	<b>Conditions for use</b>
Compost made from ingredients listed in this appendix,	
Coppers, fixed	Copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, <i>provided</i> , that, copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides.
Copper sulfate	Substance must be used in a manner that minimizes accumulation of copper in the soil.
Corn gluten meal	
Dairy products (e.g. milk, casein)	
Diatomaceous earth	
Elemental sulfur	
Ethyl alcohol	
Ethylene gas	For regulation of pineapple flowering.
Ferric phosphate (CAS # 10045–86–0).	
Gelatin	
Guano	
Homeopathic and Ayurvedic preparations	
Hoof and horn meal, feather meal, fish and shell products, wool, hide, fur, hair, dairy products	
Humic acids	Naturally occurring deposits, water and alkali extracts only.
Hydrogen peroxide	
Hydrogen chloride (CAS # 7647–01–0)	For delinting cotton seed for planting.
Iron phosphates (for use as molluscicide)	
Lecithin	
Light mineral oils (paraffin)	
Lime sulfur (Calcium polysulfide)	
Limestone, gypsum, marl, maerl, chalk, sugar beet lime, calcium chloride,	
Lignin sulfonate	Chelating agent, dust suppressant.
Liquid fish products	Can be pH adjusted with sulfuric, citric or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.
Magnesium rock, kieserite and Epsom salt (magnesium sulfate)	For use only to control the viscosity of a clay suspension agent for humates.
Magnesium oxide (CAS # 1309–48–4)	For use only to control the viscosity of a clay suspension agent for humates.
Magnesium sulfate	Allowed with a documented soil deficiency.



<b>Substances description, compositional requirements</b>	<b>Conditions for use</b>
Microbiological preparations based on naturally occurring organisms	
Microcrystalline cheesewax (CAS #'s 64742–42–3, 8009–03–08, and 8002–74–2)	For use in log grown mushroom production. Must be made without either ethylene-propylene co-polymer or synthetic colors.
Micronutrient/Trace elements, e.g.: Soluble boron products: boric acid, sodium borate, calcium borate, borethanolamin, Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt: cobalt-acetate, cobalt-sulphate, copper oxide, copper sulfate, copper hydroxide, copper silicate, copper carbonate, copper citrate, ferric oxide, ferric sulfate, ferrous sulfate, iron citrate, iron sulfate, or iron tartrate, manganous oxide, manganese sulfate and manganese carbonate, selenic acid, selenous acid, sodium molybdate, molybdic oxide, zinc carbonate, zinc oxide, zinc silicate, and zinc sulfate	Not to be used as a defoliant, herbicide, or desiccant. Use restricted to cases where soil/plant nutrient deficiency is documented by soil or tissue testing or diagnosed by an independent expert. Micronutrients in either chloride or nitrate forms are prohibited. Micronutrients may not be used as a defoliant, herbicide, or desiccant.
Mineral potassium (e.g. sulfate of potash, muriate of potash, kainite, sylvanite, patentkali)	Shall be obtained by physical procedures but not enriched by chemical processes.
Mulches, nets	
Natural acids (e.g. vinegar)	
Neem ( <i>Azadirachta indica</i> )	
Oils, horticultural	Narrow range oils as dormant, suffocating, and summer oils.
Other non-synthetic calcareous and magnesium amendments	
Paper-based crop planting aids	Virgin/recycled paper without glossy paper or colored inks.
Peat (prohibited for soil conditioning)	Excluding synthetic additives; permitted only in horticulture (floriculture, nursery plants, potting mixes).
Pheromones – in traps and dispensers only	
Physical methods (e.g. chromatic traps, mechanical traps)	



<b>Substances description, compositional requirements</b>	<b>Conditions for use</b>
Plant based repellents	
Plant oils	
Plant preparations and extracts	
Phosphates in non-synthetic form (e.g. rock phosphate, colloidal phosphate, apatite)	Cadmium content less than or equal to 90 mg/kg of P <sub>2</sub> O <sub>5</sub>
Potassium bicarbonate	
Polyoxin D zinc salt	
Propolis	
Pulverized rock, stone meal, crushed stone.	
Pyrethrum ( <i>Chrysanthemum cinerariaefolium</i> )	The synergist Piperonyl butoxide is prohibited.
Quassia ( <i>Quassia amara</i> )	
Release of parasites, predators and sterilized insects	
Ryania ( <i>Ryania speciosa</i> )	
Sabadilla	
Seasalt and salty water	
Seaweed and seaweed products	As far as obtained by: (i) physical processes including dehydration, freezing and grinding; (ii) extraction with water or potassium hydroxide solutions, provided that the minimum amount of solvent necessary is used for extraction; (iii) fermentation.
Silicates (e.g. sodium silicates, quartz)	As floating agents in post-harvest handling, for tree fruit and fiber processing.
Slug or snail bait	
Soaps, ammonium	As animal repellents, for use as a large animal repellent only, no contact with soil or edible portion of crop
Soaps, insecticidal	
Sticky traps/barriers	
Sodium bicarbonate	
Sodium chloride	
Soft soap	
Spent mushroom waste, humus from worms and insects,	
Squid byproducts	From food waste processing only. Can be pH adjusted with sulfuric, citric, or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.
Source separated human excrement	Only in compliance with requirement 4.4.5.



<b>Substances description, compositional requirements</b>	<b>Conditions for use</b>
Sucrose octanoate esters (CAS #s—42922–74–7; 58064–47–4)	In accordance with approved labeling.
Sulfur	
Sulfurous acid (CAS # 7782–99–2)	For on-farm generation of substance utilizing 99% purity elemental sulfur
Urban composts and household wastes from separated sources which are monitored for contamination	
Vermicastings	
Viral preparations (e.g. granulosis virus)	
Vitamins, C and E	
Vitamin D3	As rodenticides.
Wood, bark, sawdust, wood shavings, wood ash, wood charcoal	Only if not chemically treated



**Appendix 5: Nonsynthetic substances prohibited for use in organic crops production**

<b>Prohibited nonsynthetic substances</b>	<b>Description</b>
Ash from manure burning	
Arsenic	
Calcium chloride	Brine process is natural and prohibited for use except as a foliar spray to treat a physiological disorder associated with calcium uptake.
Lead salts	
Potassium chloride	Unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.
Rotenone (CAS # 83-79-4)	
Sodium fluoaluminate (mined)	
Sodium nitrate	Unless use is restricted to no more than 20% of the crop's total nitrogen requirement; use in spirulina production is unrestricted until October 21, 2005.
Strychnine	
Tobacco dust (nicotine sulfate)	

**Appendix 6 – Table 1: List of approved additives and processing/post-harvest handling aids**

Substances of certified organic origin must be used if commercially available. If organic sources are not available, natural sources must be used if commercially available. Only if organic and natural sources are not available, synthetic forms of the substances below may be used.

<b>Int'l Numbering system</b>	<b>Product</b>	<b>Additive</b>	<b>Proc &amp; Post Har. Han. Aid</b>	<b>Limitation/Note</b>
INS 170	Calcium carbonate	X	X	Not for coloring
INS 184	Tannic acid		X	Filtration aid for wine
INS 220	Sulfur dioxide	X		Only for wine
INS 224	Potassium metabisulphite	X		Only for wine
INS 270	Lactic acid	X	X	
INS 290	Carbon dioxide	X	X	
INS 296	L-malic acid	X	X	
INS 300	Ascorbic acid	X		
INS 306	Tocopherols, mixed natural concentrates	X		
INS 322	Lecithin	X	X	Obtained without bleaches
INS 330	Citric acid	X	X	
INS 331	Sodium citrates	X		
INS 332	Potassium citrates	X		
INS 333	Calcium citrates	X		
INS 334	Tartaric acid	X	X	Only for wine
INS 335	Sodium tartrate	X	X	
INS 336	Potassium tartrate	X	X	
INS 341	Monocalcium phosphate	X		Only for “raising flour”
INS 342	Ammonium phosphate	X		Restricted to 0.3 mg/l in wine
INS 400	Alginic acid	X		
INS 401	Sodium alginate	X		
INS 402	Potassium alginate	X		
INS 406	Agar-agar	X		
INS 407	Carrageenan	X		
INS 410	Locust bean gum	X	INS 410	Locust bean gum
INS 412	Guar gum	X	INS 412	Guar gum
INS 413	Tragacanth gum	X	INS 413	Tragacanth gum
INS 414	Arabic gum	X	INS 414	Arabic gum
INS 415	Xanthan gum	X		
INS 428	Gelatin		X	
INS 440	Pectin	X		Unmodified



<b>Int'l Numbering system</b>	<b>Product</b>	<b>Additive</b>	<b>Proc &amp; Post Har. Han. Aid</b>	<b>Limitation/Note</b>
INS 500	Sodium carbonates	X	X	
INS 501	Potassium carbonates	X	X	
INS 503	Ammonium carbonates	X		Only for cereal products, confectionery, cakes & biscuits
INS 504	Magnesium carbonates	X		
INS 508	Potassium chloride	X		
INS 509	Calcium chloride	X	X	
INS 511	Magnesium chloride	X	X	Only for soybean products
INS 513	Sulfuric acid	X	X	As processing aid for pH adjustment of water during sugar processing. As additive for wine and apple cider production
INS 516	Calcium sulfate	X		For soybean products, confectionery and in bakers' yeast
INS 517	Ammonium sulfate	X		Only for wine, restricted to 0.3 mg/l
INS 524	Sodium hydroxide	X	X	For sugar processing and for the surface treatment of traditional bakery products
INS 526	Calcium hydroxide	X	X	Food additive for maize tortilla flour; Processing aid for sugar
INS 551	Silicon dioxide (amorphous)		X	
INS 553	Talc		X	
INS 558	Bentonite		X	Only for fruit and vegetable products
INS 901	Beeswax		X	
INS 903	Carnauba wax		X	
INS 938	Argon	X		
INS 941	Nitrogen	X	X	Oil-free grades
INS 948	Oxygen	X	X	Oil-free grades
	Acidified sodium chlorite			
	Activated charcoal (CAS #s 7440-44-0; 64365-11-3)		X	Only from vegetative sources; for use only as a filtering aid.
	Ammonium bicarbonate		X	For use as a leavening agent only
	Ammonium carbonate		X	For use as a leavening agent only



Int'l Numbering system	Product	Additive	Proc & Post Har. Han. Aid	Limitation/Note
	Casein		X	Only for wine
	Cellulose		X	
	Celery powder	X	X	
	Collagen gel		X	As casing.
	Cornstarch	X		
	Diatomaceous earth		X	Only for food filtering aid
	Ethanol		X	
	Ethylene		X	De-greening of citrus and ripening
	Ferrous sulfate	X		For iron enrichment or fortification of foods when required by regulation or recommended (independent organization).
	Fish oil (Fatty acid CAS #'s: 10417-94-4, and 25167-62-8)		X	
	Fructooligosaccharides (CAS # 308066-66-2)	X		
	Glycerides (mono and di)		X	For use only in drum drying of food.
	Glycerin (CAS # 56-81-5)	X		produced from agricultural source materials and processed using biological or mechanical/physical methods
	Hydrogen peroxide		X	
	Inulin	X		Oligofructose enriched (CAS # 9005-80-5).
	Isinglass		X	Only for wine
	Lecithin	X		de-oiled
	Low-acyl gellan gum.	X		
	Kaolin		X	
	Magnesium stearate		X	For use only in agricultural products labeled “made with organic (specified ingredients or food group(s)),” prohibited in agricultural products labeled “organic”.
	Orange pulp, dried	X		
	Orange shellac		X	unbleached (CAS # 9000-59-3).
	Pectin	X		non-amidated forms only



<b>Int'l Numbering system</b>	<b>Product</b>	<b>Additive</b>	<b>Proc &amp; Post Har. Han. Aid</b>	<b>Limitation/Note</b>
	Perlite		X	Only as a filter aid in food processing
	Potassium acid tartrate	X		
	Potassium carbonate		X	
	Potassium citrate		X	
	Potassium hydroxide		X	Prohibited for use in lye peeling of fruits and vegetables except when used for peeling peaches.
	Potassium lactate		X	For use as an antimicrobial agent and pH regulator only.
	Potassium phosphate	X		For use only in agricultural products labeled “made with organic (specific ingredients or food group(s)),” prohibited in agricultural products labeled “organic”.
	Potassium iodide		X	
	Pullulan	X		Only use in tablets and capsules for dietary supplements labeled “made with organic”
	Plant and animal oils		X	For extraction only
	Preparations of bark		X	Only for sugar
	Sodium acid pyrophosphate (CAS # 7758-16-9)	X		For use only as a leavening agent
	Sodium bicarbonate	X		
	Sodium lactate	X		For use as an antimicrobial agent and pH regulator only.
	Yeast	X		Used as food or fermentation agent in products labeled as “Organic”, yeast must be organic if its end use is for human consumption; Nonorganic yeast may be used when organic yeast is not commercially available. Growth on petrochemical substrate and sulfite waste liquor is prohibited. For smoke yeast, nonsynthetic smoke flavoring process must be documented



## **Flavoring Agents**

### **Operators may use:**

- Organic flavoring extracts (including volatile oils), and, if not available,
- Natural flavoring preparations approved by the control body. Such approval shall include assessment that natural flavors shall meet the following criteria:
  - The sources are plant, animal or mineral;
  - The process of production is in accordance with a recognized organic standard;
  - They are produced by means of solvents such as vegetable oils, water, ethanol, carbon dioxide and mechanical and physical processes.

## **Preparations of Micro-organisms and Enzymes for use in food processing (see Appendix 6)**

These may be used as ingredient or processing aids with approval from the control body:

- Organic certified micro-organisms
- Preparations of micro-organisms
- Enzymes and enzyme preparations



**Appendix 6 – Table 2: Indicative list of equipment cleansers, equipment disinfectants, algicide, and sanitizer, including irrigation system cleaning systems.**

<b>Product</b>	<b>Limitation/Note</b>
Acetic acid	
Alcohol, ethyl (ethanol)	
Alcohol, isopropyl (isopropanol)	
Calcium hydroxide (slaked lime)	
Calcium hypochlorite	An intervening event or action must occur to eliminate risks of contamination
Calcium oxide (quicklime)	
Chloride of lime (calcium oxychloride, calcium chloride, and calcium hydroxide)	
Chlorine materials	For pre-harvest use, residual chlorine levels in the water in direct crop contact or as water from cleaning irrigation systems applied to soil must not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act, except that chlorine products may be used in edible sprout production according to EPA label directions.
Chlorine dioxide	An intervening event or action must occur to eliminate risks of contamination
Citric acid	
Formic acid	
Hydrogen peroxide	
Hypochlorous acid	Generated from electrolyzed water.
Lactic acid	
Natural essences of plants	
Oxalic acid	
Ozone gas	For use as an irrigation system cleaner only
Peracetic acid	For use in disinfecting equipment, seed, and asexually propagated planting material. Also permitted in hydrogen peroxide formulations as allowed in Appendix 6 Table 2 at concentration of no more than 6% as indicated on the pesticide product label.
Plant extracts	
Potassium soap	An intervening event or action must occur to eliminate risks of contamination
Potassium hypochlorite	For use in water for irrigation purposes.
Sodium carbonate peroxyhydrate (CAS #–15630–89–4)	The use of this substance is restricted in food crop production to approved food uses identified on the product label.
Sodium hydroxide (caustic soda)	An intervening event or action must occur to eliminate risks of contamination
Sodium hypochlorite	An intervening event or action must occur to eliminate risks of contamination
Sodium soap	An intervening event or action must occur to eliminate risks of contamination



## Appendix 7 – Table 1: Process water (subject to Malaysian drinking water quality standards)

## \*Food processing only

Parameter	Maximum Acceptable Value	Unit
Coliform Group	5000	MPN/100 ml
E-coli	5000	MPN/100 ml
Turbidity	1000	NTU
Color	300	TCU
pH Value	5.5-9.0	-
Temperature	Normal $\pm$ 20	$^{\circ}$ C
Electrical Conductivity	1000 #	$\mu$ S/cm
Threshold value	1500	mg/L
Chloride salt - Cl	250	mg/L
Ammonia-Nitrogen	1.5	mg/L
Nitrate-Nitrogen	10	mg/L
Iron	1.0	mg/L
Fluoride salt - Fl	1.5	mg/L
Total Hardness as CaCO <sub>3</sub>	500	mg/L
Manganese	0.2	mg/L
Chemical Oxygen Demand (COD)	10	mg/L
Anionic Detergent MBAS	1.0	mg/L
Biological Oxygen Demand (BOD)	6	mg/L
Nitrite-Nitrogen	0.4#	mg/L
Mercury	0.001	mg/L
Cadmium	0.003	mg/L
Arsenic	0.01	mg/L
Cyanide salt - CN	0.07	mg/L
Lead	0,05	mg/L
Total Chromium	0.05	mg/L
Copper	1.0	mg/L
Zinc	3.0	mg/L
Sodium	200	mg/L
Sulfate salt - SO <sub>4</sub> -2	250	mg/L
Selenium	0.01	mg/L
Silver	0.05	mg/L
Magnesium	150	mg/L
Mineral Oil	0.3	mg/L
Pesticides	0.00003-0.03*	mg/L
Phenols	0.002	mg/L
Nickel	0.05	mg/L
Gross alpha	0.1	Bq/l
Gross beta	1.0	Bq/l

\*Pesticide - Aldrin/dieldrin, DDT, Heptachlor, Methoxychlor, Lindane, Chlordane, Endosulfan, hexachlorobenzene, 2,4,5 –T, 2,4-D, 2,4-DB, Alachlor, Aldicarb, Carbofuran, MCPA, Permethrin

#Source: Class II, National Water Quality Standards