PGS Organic Standards
These standards are guided by the NATIONAL STANDARD FOR ORGANIC PRODUCTION AND PRODUCT PROCESSING (10TCN 602-2006) as issued by MARD on 30 Dec 2006.

INTRODUCTION
The Vietnam PGS Organic Standards for Producers are standards drafted by the PGS Coordination Committee in line with IFOAM Basic Standards and MARD’s Standards for Organic Production and Processing. These PGS Standards for Producers cover crop production as well as animal production. Separate Standards are developed for handling, processing, and retailing. Together, these standards enable the Vietnam PGS to give certification service for organic crops and animals produced from farm up to the final sale to consumers.

To allow for a better understanding how specific standards relate to the more general principles of organic agriculture, the Vietnam PGS Organic Standards for Producers are presented as follows:

1. **General Principles** are the intended goals of organic production. These principles are written as positive statements, using words such as “is” and “are”.

2. **Recommended practices** are practical suggestions for farmers to implement in organic farms. The Vietnam PGS encourages farmers to use these practices as much as possible but their application is not enforced.

3. **Standards** are the basic requirements which farmers must follow in order to be certified by the Vietnam PGS. It should be noted that all the standards applicable to the particular farm must be met before the farm can be certified as organic.

Some technical terms are explained in the section on definitions below.

PRINCIPLES OF ORGANIC AGRICULTURE
The principal aims of organic agriculture include:
- the production of food of high nutritional value;
- the enhancement of biological cycles in farming systems;
- maintaining and increasing fertility of soils;
- working as far as practicable within a closed system;
- the avoidance of pollution resulting from agriculture;
- minimising the use of non-renewable resources;
- the co-existence with, and the protection of, the environment.

These standards were approved by the PGS Annual Meeting of June 08, 2011 and need to be applied as of January 01, 2012.
### DEFINITIONS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Genetic engineering</strong></td>
<td>The bio-molecular techniques by which the genetic material of plants, animals, micro-organisms, cells and other biological units are altered in the way that could not be obtained naturally through breeding, selection or mutation. Genetic engineering techniques include recombinant DNA, cell fusion, micro and macro injection, encapsulation, gene deletion and gene doubling. Genetic engineering techniques do not include conjugation, transduction and natural hybridization.</td>
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<tr>
<td><strong>Genetically modified organism (GMOs)</strong></td>
<td>Living organisms, either plants, animals or micro-organisms, which are derived from genetic engineering.</td>
</tr>
<tr>
<td><strong>Handling</strong></td>
<td>Includes: drying, cleaning, cutting, sorting, packing, storage, and transportation of product.</td>
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<tr>
<td><strong>Labelling</strong></td>
<td>Any words, particulars, trademarks, brand names, names of certifying organisations, pictorial matter or symbols appearing on any packaging, document, notice, label, board or collar accompanying or referring to a product.</td>
</tr>
<tr>
<td><strong>Operator</strong></td>
<td>Any person who is involved at any stage of the chain of production, processing, storage, packaging, transporting, retailing, displaying, importing or exporting of products or who markets such products.</td>
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<tr>
<td><strong>Preparation</strong></td>
<td>The operations of processing, preserving and packaging of agricultural products using energy saving technologies and management techniques appropriate to the specifics of the ingredients with careful processing methods limiting refining and minimal use of permitted additives and processing aids.</td>
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<tr>
<td><strong>Parallel production</strong></td>
<td>Crop production, handling, and processing of the same crop both certified organic and otherwise. The others include non-organic, in conversion, self-claimed natural and organic but not certified crops.</td>
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<tr>
<td><strong>Annual crop</strong></td>
<td>Crops with short life cycle and be harvested within one cropping season.</td>
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<tr>
<td><strong>Perennial crop</strong></td>
<td>Crops with long life more than 1 year and can be harvested continuously more than 1 crop year.</td>
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<tr>
<td><strong>Input</strong></td>
<td>Products used in organic production and processing, e.g. fertilizers, soil conditioners, plant protectants, including additives and processing aids used in organic processed products.</td>
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<tr>
<td><strong>Commercial input</strong></td>
<td>Input which has been manufactured and processed for commercial interest.</td>
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<tr>
<td><strong>Field</strong></td>
<td>A piece of cultivated land with adjoining space. Sometimes also called “plot”.</td>
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<tr>
<td><strong>Farm</strong></td>
<td>All agriculture land holding (for crop or animal raising) under the management of the same person. It also includes land rented from others for farming purpose which the farmer is not the owner.</td>
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<tr>
<td><strong>Conversion period</strong></td>
<td>The beginning of doing organic agriculture according to ACT standards until the product is certified as organic.</td>
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1. **GENERAL FARM MANAGEMENT**

1.1 **Whole-farm Conversion**

*General Principles*

The whole farm, including livestock, is converted to organic management practices according to the standards over a period of time.

Organic production systems require an on-going commitment to organic production practices.

*Standards*

1.1.1 Parallel production is not allowed: crops in organic fields must be different from crops in conventional fields. If organic animals are kept on the farm, the same type of animal cannot be kept on the farm under conventional management.

1.1.2 In case the producer does not convert all fields to organic farming, the organic plots and conventional plots must be separated clearly and all fields shall be inspected by the PGS.

1.1.3 The certified lands shall not be converted back and forth between organic and conventional production.

1.2 **Soil and Water Conservation**

*General Principle*

Organic farming methods conserve and improve soils, maintain water quality and use water efficiently and responsibly.

*Standards*

1.2.1 If a farm has a risk of soil erosion, the producer must take measures to prevent soil erosion such as planting crops in contour lines, etc.

1.2.2 When appropriate, the producer must take measures to prevent soil salination.

1.2.3 Burning of crop residues is prohibited.

1.2.4 The producer must take measures to prevent excessive exploitation of water and must try to preserve water quality.

1.2.5 Farmers must return nutrients, organic matter and other resources removed from the soil through harvesting by the recycling, regeneration and addition of organic materials and nutrients.

1.2.6 In case the certified producer has livestock (include poultry) on the certified area, the grazing management must include measures to prevent soil degradation and the pollution of soil and water resources.

1.3 **Ecosystem Management**

*General Principle*

Organic farming benefits the quality of ecosystems and the natural landscape.

*Standards*

1.3.1 A producer must maintain and enhance biodiversity in the farm by conserving at least 5% of the field to be habitats of diversified plants and animals. Such areas may
be forest land, flooded forest, bushes or big trees in the field, hedges in the borders, integrated orchards, ditches, natural ponds, and idle areas with natural plants.

1.3.2 Clearing of primary ecosystems is prohibited.

1.4 Genetic Engineering

*General Principle*

Genetic engineering is excluded from organic production and processing.

*Standards*

1.4.1 All farm inputs containing GMOs are prohibited.

1.4.2 Farm inputs shall be traced back one step of the production process in order to verify that they are not produced from plants, animals, or microorganisms derived from genetic engineering, both direct and indirect ways.

1.5 Documentation

*Standards*

1.5.1 A farmer must maintain records of all farm inputs indicating the source of farm input, quantity used, and transaction record of sale. These documents shall be made available for PGS inspection.

1.5.2 If there is any change of the production in the farm, such as increase or decrease of the farm land, change of crop or animal type, etc., the producer is required to inform the PGS immediately.

2. ORGANIC CROP PRODUCTION

2.1 Conversion Requirements

*General Principle*

A conversion period enables the establishment of an organic management system and build soil fertility.

*Standards*

2.1.1 All fields applied for organic certification shall be put into a *conversion period*. In such period, a producer must follow the PGS Standards, and be inspected and certified by the PGS but the produce grown in the conversion period cannot be sold as organic.

2.1.2 For annual crops, the conversion period is one season. The conversion period must cover the full crop cycle (from soil preparation to harvest). The produce of the crop sown after the conversion period can be sold as “organic product” with the PGS seal.

2.1.3 For perennial crops, the conversion period is one full cycle (from flowering to harvest). The produce harvested after the conversion period can be sold as “organic product” with the PGS seal.
2.2  Choice of Crops and Varieties

**General Principles**

Species and varieties cultivated in organic agriculture systems are selected for adaptability to the local soil and climatic conditions and tolerance to pests and diseases. All seeds and plant material are from organic origin.

**Standards**

2.2.1  If available, organic seed and plant material should be used. If not available, conventional seeds can be used but these seeds shall not be treated with prohibited pesticides before sowing. Cleaning the pesticides off with water is allowed.

2.2.2  For perennial crops, the use of plant propagation materials from non-organic agriculture in the organic farm is permitted but the produce of this crop cannot be sold as organic with the PGS seal during the first 12 months.

2.3  Diversity in Crop Production

**General Principle**

Soil and soil management is the foundation of organic production. Organic growing systems are soil-based, care for the soil and surrounding ecosystems and provide for a diversity of species, while encouraging nutrient cycling and mitigating soil and nutrient losses.

**Standards**

2.3.1  In annual crop production, the producer must establish diversity of plants in the farm by at least practicing crop rotation in order to reduce diseases, insects and weeds, including rotating leguminous crops in order to improve organic matter and soil fertility.

2.3.2  In perennial crop production, the producer must establish diversity of plants in the farm by at least growing cover crops and/or other diverse plant species.

2.4  Soil Fertility and Plant Growth Management

**General Principles**

Organic farming returns microbial, plant or animal material to the soil to increase or at least maintain its fertility and biological activity. The use of synthetic fertilizers and plant growth regulators is prohibited.

**Standards**

2.4.1  A producer must try to use organic matter from plant and animal produced within the farm for soil improvement and try to reduce the use of brought-in organic materials.

2.4.2  There shall be an organic fertilization plan of the integrated use of organic fertilizers. The organic fertilizer must be used as necessary and in the appropriate amounts with consideration of nutrient balance in the soil and the need of nutrient of that crop.
2.4.3 Only fertilizers, soil conditioners and growth regulators listed on the PGS approved inputs register are allowed.

2.4.4 The use of human excrement (faeces) is prohibited.

2.4.5 Animal manure from outside the farm must be hot composted.

2.4.6 Both on-farm and brought-in composts are allowed but only organic materials listed on the PGS approved inputs register (Part 1) can be used as ingredients in composting. The producer must be able to inform the PGS the organic materials used in the compost and the source of the compost.

2.4.7 Urban waste is not allowed for composting due to risk of heavy metal contamination.

2.4.8 Compost and animal manure heaps must be located away from areas where harvested crops are cleaned or packed.

2.4.9 Mineral fertilizers are allowed to be used as a supplement in a program addressing long-term fertility needs together with other techniques such as the use of nutrient recycling, leguminous crops, crop rotation and organic matter.

2.4.10 Micro nutrients listed on the PGS approved inputs register (Part 1) may be applied to crops if there is a clear lack of such nutrients on the crops. However, the producer shall notify the problem and the effort to solve it by other means and/or the result of soil and tissue testing to the PGS.

2.4.11 Use of micro-organism for soil improvement, composting, water treatment and waste treatment in animal housing is allowed except when these micro-organism are produced through genetic engineering.

2.4.12 The use of Chilean nitrate and all synthetic fertilizers, such as urea and superphosphate, are prohibited.

2.4.13 Synthetic plant growth hormones are prohibited.

2.5 Pest, Disease and Weed Management

General Principles
Organic farming systems apply biological and cultural means to prevent unacceptable losses from pests, diseases, and weeds. They use crops and varieties that are well-adapted to the environment and a balanced fertilisation programme to maintain fertile soils and grow healthy crops.

Recommended Practices

- Promoting the distribution of beneficial animals and natural pest enemies (predator, parasite), such as growing of flowers as companion crops, growing plants for their habitats or building nests for birds.

- Growing of insect repellent plants as mixed crop can help to reduce pest such as garlic with cabbage or citronella with kale.

- Avoid growing the same crop repeatedly on the same plot in order to reduce pest problem. Crop rotation is recommended.

- Use of good cultural practices to control weed such as ploughing, rotation, mixed crop, mulching crop, and mulching from natural materials.
Standards

2.5.1 All organic production systems must demonstrate a set of measures actively applied to reduce pest, disease and weed problems.

2.5.2 Only methods and products listed on the PGS approved inputs register (Part 2) are allowed.

2.5.3 Synthetic plant protection products are prohibited.

2.5.4 The use of detergents or synthetic sticking agents is prohibited.

2.5.5 The use of rice straw as mulch to prevent weeds and maintain soil moisture is allowed. Preference is given to straw from organic farms but, if it is not available, straw from conventional farms is permitted.

2.5.6 The use of plastic, based on polyethylene, polypropylene or other polycarbonates, for mulching, fruit wrapping, or insect netting is allowed. After use, the plastic must be removed from the farm and cannot be burned on the farmland.

2.5.7 The use of prohibited plant protection products in storage is prohibited.

2.6 Avoiding Contamination

General Principle
All relevant measures are taken to ensure that organic soil and food is protected from contamination.

Standards

2.6.1 Water used for organic farming should be clean (as per regulation TCVN 5942-1995).

2.6.2 Organic production sites should be sufficiently separated from polluting sources, such as industry, construction sites, main roads, etc.

2.6.3 When organic fields could be contaminated by prohibited substances from adjacent conventional fields or other sources of contamination, the organic field must have a buffer area of at least one (01) metre to prevent chemical contamination and:

2.6.3.1 If contamination is by air drift, then there shall be a crop grown to prevent spray contamination. The crop grown in the buffer area must be different from the organic crop.

2.6.3.2 If contamination is by water, then there shall be an earth bund or drainage ditch to prevent contamination through runoff.

2.6.4 When there is high risk of chemical or heavy metal contamination, both from external factors and historical use of chemicals or inputs in the farm, the producer must permit the PGS to sample water, soil or products for verifying a contamination at the expense of the producer.

2.6.5 Farm spray equipment used in conventional farming cannot be used for organic farming.

2.6.6 Other farm tools and equipment used in conventional farming must be cleaned before use in organic farming.

2.6.7 Bags and containers used for prohibited substances cannot be used for transporting and storing organic products.
3. **ORGANIC ANIMAL HUSBANDRY**

**Scope**
These animal husbandry standards cover the following groups of animals and their products: cows, buffaloes, pigs, goats, chicken and ducks and Muscovy ducks.

**3.1 Animal Management**

**General Principle**
Organic animal husbandry is based on the harmonious relationship between land, plants and livestock, respect for the physiological needs of livestock and the feeding of good quality organically produced feed-stuffs.

**Standards**

3.1.1 Animals shall have access to fresh air, clean water and nutritious feed and be handled according to the needs of the animal.

3.1.2 Animals shall have access to protection from sunlight, excessive noise, heat, rain, mud and wind to reduce stress and ensure their well-being.

3.1.3 If animals are housed they shall have:
- sufficient space to stand naturally, lie down easily, turn around, groom themselves and assume all natural postures and movements, such as stretching or wing flapping;
- adequate fresh, natural bedding materials for animals that require bedding (cattle, sheep, goats, pigs), and pens that are kept clean;
- enclosures that are constructed so as to ensure adequate insulation, heating, cooling and ventilation, and that enable dust levels, temperature, relative humidity and gas concentrations to be kept within levels that are not harmful to livestock;
- capacity to maintain social structures, e.g. by ensuring that herd animals are not kept in isolation from other animals of the same species;
- enclosures, and any associated production equipment, that are constructed of materials that do not harm human or animal health.

3.1.4 Poultry, rabbits and pigs shall not be kept in cages.

3.1.5 Landless animal husbandry systems are prohibited and all animals shall have access to pasture or an open-air exercise area or run, whenever the physiological condition of the animal, the weather and the state of the ground permit.

3.1.6 For housing areas, minimum densities of animals are set as follows:

<table>
<thead>
<tr>
<th>Animals</th>
<th>Densities</th>
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<tbody>
<tr>
<td>PIGS</td>
<td><strong>CHICKEN + (MUSCOVY) DUCKS</strong></td>
</tr>
<tr>
<td>Pigs &gt; 40 kg</td>
<td>1.1 m²/animal</td>
</tr>
<tr>
<td>Breeding pigs</td>
<td>3.0 m²/animal</td>
</tr>
<tr>
<td>Piglets</td>
<td>0.6 m²/animal</td>
</tr>
<tr>
<td>Day old chicks</td>
<td>2.0 m²/100 chicks</td>
</tr>
<tr>
<td>3 – 4 weeks old</td>
<td>0.05 m²/bird</td>
</tr>
<tr>
<td>&gt; 28 days old</td>
<td>0.1 m²/bird</td>
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3.1.7 The number of animals stocked in an area and the flock/herd size must be limited to enable them to freely exhibit their natural behaviour and to ensure that there is no damage to soil and water resources.

For chicken and (Muscovy) ducks the density of animals in the outside area is initially set at 1 animal/m².
3.1.8  The use of artificial lighting should be limited.

3.2  Conversion Requirements

General Principle
Animal husbandry systems that are changed from conventional to organic production require a conversion period to develop natural behaviour, immunity and metabolic functions.

Standards
3.2.1  Where existing animals are converted to organic on an organic property they shall undergo a one-time minimum conversion period according to the following schedule:
- For animals for milk production – 90 days
- For animals for meat production – 12 months
- For poultry for egg production – 42 days

For any other situation, please refer to 3.3.1.

3.3  Animal Sources/Origin

General Principle
Organic animals are born and raised on organic holdings.

Standards
3.3.1  Animals shall be raised organically from birth. However, if such animals are not available, conventional animals may be brought in before they reach the following maximum ages:
- 2-day-old chickens for meat production;
- 18-week-old hens for egg production;
- 2 weeks for any other poultry;
- Piglets up to 6 weeks and after weaning;
- Dairy calves and goats – animals up to 4 weeks old (but before being sold as organic one year of organic management is needed)

Livestock that do not comply with the above conditions can never be converted to organic.

3.3.2  Any livestock introduced from outside a farm, other than certified organic livestock, must be quarantined in a designated area separate from organic stock and the organic production system for a minimum period of 48 hours. Pasture areas used for quarantine shall not be used for organic production for a period of at least 12 months after use; pens and cages can be used once cleaned of manure and bedding material used during the quarantine.
3.4 Breeds and Breeding

General Principle
Breeds are adapted to local conditions. Animals should be bred by natural reproduction methods.

Standards
3.4.1 Breeding systems shall be based on breeds that can breed naturally without human involvement.
3.4.2 Artificial insemination is permitted but not recommended.
3.4.3 Embryo transfer techniques and cloning are prohibited.
3.4.4 The use of hormones to induce ovulation and birth is prohibited.

3.5 Mutilations

General Principle
Organic farming respects the animal’s distinctive characteristics.

Standards
3.5.1 The use of routine surgical treatment for animals is prohibited and may only be used for reasons of safety, to ease suffering, and to sustain the health and welfare of the animal. In such situations, but only when animal suffering is minimized and anaesthetics are used where appropriate, the following treatments are permitted:
- Ringing
- Castration
- Dehorning and detusking (only of young animals less than 6-months old)

3.6 Animal Nutrition

General Principle
Organic animals receive their nutritional needs from organic forage and feed of good quality.

Standards
3.6.1 Animals shall be fed a balanced diet that provides all of their nutritional needs, with all ruminants having daily access to roughage. Feed is to be made up of 100% organic feedstuffs (“organic” as defined by these PGS Standards). Where organic feed of sufficient quantity or quality is not available, the daily maximum percentage of non-organic (including in-conversion) feed shall be 10% for ruminants and 15% for non-ruminants based on annual dry matter consumed.
3.6.2 Over 50% of feed shall come from the farm itself or be produced in co-operation with other organic farms.
3.6.3 Animals may be fed vitamins, trace elements and supplements from natural sources for a maximum of 5% of all feed. However, the operator should be able to demonstrate the source of these additives.
3.6.4 The feeding of mammalian material excluding milk and milk products to ruminants is prohibited.
3.6.5 Animals may be fed with carried fresh fodder where this is a more sustainable way to use land resources than grazing. Animal welfare shall not be compromised. Animals shall on regular basis be allowed to move.

3.6.6 The grazing of animals in natural/range land areas is considered part of an organic production method provided that the following are met:
- grazing occurs within clearly defined areas that are subjected to inspection;
- those areas have received no treatments with products other than those listed on the PGS approved inputs register for a period of three years before grazing;
- the grazing does not disturb the stability of the natural habitat.

3.6.7 Weaning. Young mammals (pigs, cows, ...) shall be provided milk from their mother or organic milk from the same species. For pigs the minimum weaning age is 6 weeks except in case of an emergency.

3.6.8 The following substances are prohibited from use as feed:
- For ruminants, farm animal by-products (e.g. abattoir waste);
- Slaughter products of the same species;
- All types of excrement, including droppings or other manure;
- Feed subjected to solvent extraction (e.g. hexane) or the addition of other chemical agents;
- Synthetic amino acids and amino-acid isolates;
- Urea and other synthetic nitrogen compounds;
- Synthetic growth promoters or stimulants;
- Synthetic appetisers;
- Preservatives, except when used as a processing aid;
- Artificial colouring agents.

3.6.9 Only the following feed preservatives can be used:
- Bacteria, fungi and enzymes (including EM);
- Food industry by-products (e.g. molasses);
- Plant-based products.

3.7 Animal Health

General Principle
Organic management practices promote and maintain the health and well-being of animals through balanced organic nutrition, stress-free living conditions and breed selection for resistance to diseases, parasites and infections.

Recommended Practices
Animal health should be maintained and diseases and parasites in livestock controlled using the following management practices:
- selection of appropriate breeds or strains of animals;
- adoption of practices appropriate to the requirements of each species
- provision of adequate organic feed supplies at all times;
- rotational grazing management;
- clean housing conditions; and
- appropriate stocking densities.
Standards

3.7.1 The operator shall take all practical measures to ensure the health and well-being of the animals through preventive animal husbandry practices.

3.7.2 The reliance on substances rather than management practices for the control of pests and diseases is not in accordance with organic farming principles. Products listed on the PGS approved inputs register are to be used as aids, where the above practices are, or would be, insufficient.

3.7.3 If an animal becomes sick or injured the animal shall be treated promptly and adequately. Producers shall not withhold medication, even if the use of such medication will cause the animal to lose its organic status. Chemical veterinary drugs and vaccines can be used if:
  - preventive and alternative practices are unlikely to be effective to cure sickness or injury
  - they are used under the supervision of a veterinarian, and
  - withholding periods shall be double those required by legislation, or a minimum of 48 hours, whichever is longer the treatment is legally required

3.7.4 The use of veterinary drugs (including antibiotics) on livestock in the absence of illness is prohibited.

3.7.5 The use of synthetic growth promoters or suppressants is prohibited.

3.7.6 Vaccinations are permitted in cases when:
  - an endemic disease is known, or expected, to be a problem in the region of the farm and where this disease cannot be controlled by other management techniques; or
  - a vaccination is legally required; and
  - the vaccine is not genetically engineered.

3.8 Transport and Slaughter

General Principle
Organic animals are subjected to minimum stress during transport and slaughter.

Standards

3.8.1 Animals shall be handled calmly and gently during transport and slaughter. The transport and slaughter of animals shall comply with all relevant national and regional regulations.

3.8.2 During the process of transportation and slaughter, organic animals shall be provided with conditions that reduce, and minimise the potentially adverse effects, of:
  - stress;
  - loading and unloading;
  - mixing different groups of animals or animals of different sex;
  - temperature and relative humidity; and
  - hunger and thirst.

3.8.3 Animals shall not be treated with synthetic tranquillisers or stimulants prior to, or during transport. The use of electric prods and other such instruments is prohibited.
3.8.4 Slaughter shall be carried out quickly and without causing undue stress to the animal. Each animal shall be stunned before being bled to death. Slaughter by bleeding, without stunning, is not permitted.

3.8.5 Each animal or group of animals shall be identifiable at each step in the transport and slaughter process.

3.8.6 Organic and non-organic animals cannot be transported together or slaughtered at the same time.

3.8.7 Slaughterhouse journey times shall not exceed eight hours.

4. PROCESSING AND HANDLING

Standards in this section cover all processing and handling carried out by the primary producer of the produce processed and/or handled and already covered under sections 1, 2 or 3. Hence, this handling and processing shall be simultaneously inspected and certified with the PGS Farm inspection and certification. Any other processing and/or handling is covered under the PGS Retail Standards.

4.1 General Requirements

General Principle
Organic processing and handling provide consumers with nutritious, high-quality supplies of organic products, and provide organic farmers with a market that does not compromise the organic integrity of their products.

Standards

4.1.1 All steps of the handling and processing must be inspected and certified by the PGS.

4.1.2 An operator shall train and inform all employees (both permanent and occasional) or responsible persons about the requirements of these PGS Standards.

4.1.3 An operator shall maintain documents indicating the source of organic materials, handling/processing records, stock of organic materials and finished products, and an accounting system including the purchase of organic raw materials and sale of finished organic products. Documents and accounts should be clear and available for PGS inspection.

4.1.4 An operator shall retain documents which indicate that the organic raw materials used in handling/processing have been certified by the PGS.

4.1.5 All organic products shall be clearly identified as organic throughout the entire process.

4.2 Ingredients

General Principle
Organic processed products are made from organic ingredients only.

Standards

4.2.1 All ingredients used in an organic processed product shall be organically produced except for those additives and processing aids listed on the PGS approved inputs register.
4.2.2 If organic ingredients are not available, then non-organically produced ingredients of agricultural origin may be used, provided that:
- they are permitted by the PGS as listed on the PGS approved inputs register;
- they are not genetically engineered;
- they do not exceed 5% of the content of the agricultural origin component of the product. Water and salt may be used as ingredients in the production of organic products and are not included in the percentage calculations of organic ingredients.

4.2.3 Notwithstanding the acceptance under 4.3.1 and 4.3.2 of the use of non-organic substances, the use of such substances should be restricted to the need that:
- they are indispensable for ensuring the safety of the food, or
- they are essential to prepare or preserve such food, or
- they are required by law.

4.2.4 Food fortification – minerals (including trace elements), vitamins, amino acids and similar additives shall not be used, unless their use is legally required.

4.3 Processing Methods

*General Principle*

Organic processed products are made from organic ingredients only.

*Standards*

4.3.1 Techniques used to process organic food shall be physical (e.g., milling, drying, extracting), biological (e.g., fermenting) and/or mechanical (e.g., pressing) in nature.

4.3.2 Only filtration techniques that have no chemically reacted or modify food on a molecular basis are allowed.

4.3.3 Waste from processing shall be managed appropriately to have minimum effect to the environment. When appropriate, waste should be reused.

4.3.4 All equipments, containers, and processing method shall be clean and hygienic and there shall be measure to prevent contaminants (e.g. microorganism, pest, and chemicals).

4.3.5 Where conventional products are also processed or handled in the premises concerned, there must be separate areas for storage of conventional and organic products and all equipment and machinery used is cleaned before and after being used for the organic products. Besides, conventional and organic products shall not be processed at the same time.

4.3.6 Only water and cleansing agents listed on the PGS approved inputs register (Part 4) are allowed to be used for cleaning containers, equipments, and processing areas.

4.4 Storage, including Pest and Disease Control

*General Principle*

Organic food is protected from pests and diseases by the use of good manufacturing practices that include proper cleaning, sanitation and hygiene, without the use of chemical treatment or irradiation.
Standards

4.4.1 All storage facilities of raw and final products shall be inspected by the PGS.
4.4.2 Organic products shall be stored separately from conventional produce/products, except when they are packed in packaging with different colour or clear labelling. Such separation and identification must also be made during transportation until it reaches consumers.
4.4.3 Cold storage and frozen storage is permitted.
4.4.4 Pest control in the storage shall use the following methods according to these priorities:
   - preventative methods such as cleaning the storage, elimination of habitat, access to facilities, etc.;
   - mechanical, physical, biological methods; and
   - use of products listed in the PGS approved inputs register.
4.4.5 Prohibited pest control practices include, but are not limited to, the following substances and methods:
   - pesticides not contained in the PGS approved inputs register;
   - fumigation with ethylene oxide, methyl bromide, aluminium phosphide or other substances not listed in the PGS approved inputs register (Part 3);
   - ionising radiation (x-ray of products is permitted).

The direct use or application of a prohibited method or material means that the product is no longer organic.

4.5 Packing and Packaging

General Principle
Organic product packaging has minimal adverse impacts on the product or on the environment.

Standards

4.5.1 All material used for packaging must conform to food grade packaging materials as established by the Vietnamese national regulations and should avoid the movement of substances not permitted under the PGS standards into the organic food.
4.5.2 Packing materials for organic produce shall not be treated with synthetic pesticides or other chemicals not allowed under the PGS standards.
4.5.3 Packing materials for finished products shall be clean and never been used for packing any other food or materials, except glass container.
4.5.4 Vacuum packing and carbon dioxide fumigation is permitted.
4.5.5 Styrofoam is not allowed to use as packaging.

4.6 Transportation

Standards

4.6.1 Transportation of organic products shall not be done together with conventional products. If this cannot be done, organic products shall have clear labelling and be packed in containers that can prevent contamination. The operator shall take the responsibility of the organic products during transportation.