Appendix 5

ORGANIC FOOD PROCESSING AND HANDLING

1. Specific Requirements

Any handling and processing of organic products should be optimized to maintain the quality and integrity of the product.

The operator must develop an organic production and handling plan. An organic production and handling plan must include :

(i) Description of practices and procedures to be performed

(ii) List of each substances/inputs used during production, storage and handling indicating its composition, source, locations where it will be used and documentation of commercial availability as applicable. The approved ingredients and additives used in food processing of organic products is at Annex – 1 (A) & (B).

(iii) Description of the monitoring practices and procedures followed and maintained to verify the plan is effectively implemented

(iv) Description of the record keeping system implemented to comply with the requirements of NPOP

(v) Description of the management practices and separation measures established to prevent commingling of organic and non organic products during parallel processing and handling

(vi) Pollution sources shall be identified and contamination avoided.

(vi) Processing and handling of organic products should be done separately in time or place from handling and processing of non-organic products.

(vii) All products shall be adequately identified through the whole process.

(viii) Certification programme shall regulate the means and measures to be allowed.

(ix) Recommended for decontamination, cleaning or disinfections of all facilities where organic products are kept, handled, processed or stored

2. Pest and disease control

(i) Pests should be avoided by good manufacturing practices. This includes general cleanliness and hygiene.

(ii) Treatments with pest regulating agents must thus be regarded as the last resort.

(iii) Recommended treatments are physical barriers, sound, ultra-sound, light and UV-light, traps (incl. pheromone traps and static bait traps), temperature control, controlled atmosphere and diatomaceous earth.

(iv) A plan for pest prevention and pest control should be developed.

(v) For pest management and control the following measures shall be used in order of priority:

- Preventive methods such as disruption, elimination of habitat and access to facilities
- Mechanical, physical and biological methods
- Pesticidal substances contained in the Appendices of the national standards
- Other substances used in traps

(vi) Irradiation is prohibited.

(vii) There shall never be direct or indirect contact between organic products and prohibited substances. (e.g. pesticides). In case of doubt, it shall be ensured that no residues are present in the organic product.

(viii) Persistent or carcinogenic pesticides and disinfectants are not permitted.

3. Ingredients

(i) 100% of the ingredients used in processing shall be organic except where an organic ingredient is not available in sufficient quality or quantity, non organic ingredients may be used to a minimum extent only in case of essential technological need or for particular nutritional purpose. Such non organic raw material shall not be genetically engineered. The accredited Certification Body may authorize the use of non-organic raw materials subject to periodic re-evaluation.

(ii) The same ingredient within one product shall not be derived both from an organic and non-organic origin.

(iii) Preparations of micro-organisms and enzymes commonly used in food processing may be used, with the exception of genetically engineered micro-organisms and their products. For the production of enzymes and other micro-biological products, the medium shall be composed of organic ingredients.

(iv) Water and salt may be used in organic products

(v) Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used. The certification programme may, grant exceptions where use is legally required or where severe dietary, or nutritional deficiency can be demonstrated.

(vi) Ethylene gas is permitted for ripening

4. Processing Methods

(i) Processing methods should be based on mechanical, physical and biological processes.

(ii) The vital quality of an organic ingredient shall be maintained throughout each step of its processing methods and shall be chosen to limit the number and quantity of additives and processing aids. The following kinds of processes are approved :

- Mechanical and physical
- Biological
- Smoking
- Extraction
- Precipitation
- Filtration

(iii) Extraction shall be either with water, ethanol, plant and animal oils, vinegar, carbon dioxide, nitrogen or carboxylic acids. These shall be of food grade quality, appropriate for the purpose

(iv) Filtration substances shall not be made of asbestos nor may they be permeated with substances which may negatively affect the product.

(v) Irradiation is not allowed.

5. Packaging

(i) Biodegradable, recyclable, reusable systems and eco-friendly packaging materials shall be used wherever possible

(ii) Material used for packaging shall not contaminate food. Certain additives for use in manufacturing of packaging films for packaging of organic food stuffs are allowed for restricted use (**Annex 2**)

(iii) The packages shall be closed in such a manner that substitution of the content cannot be achieved without manipulation or damage of the seal.

(iv) The accredited Certification Body shall approve the packaging material for use.

6. Labelling

6.1 Labeling Requirements:

(i) Labelling shall convey clear and accurate information on the organic status of the product.

(ii) When the full standards requirements are fulfilled, products shall be sold as "produce of organic agriculture" or a similar description.

(iii) The label for conversion products shall be clearly distinguishable from the label for organic products by mentioning the tear of conversion.

(iv) The name and address of the person or company legally responsible for the production or processing of the product shall be mentioned on the label.

(v) Product labels should list processing procedures, which influence the product properties in a way not immediately obvious. All components of additives and processing aids shall be declared.

(vi) Additional product information shall be made available on request.

(vii) Ingredients or products derived from wild production shall be declared as such.

6.2 Processed products

(i) Single ingredient products may be labelled as "Organic" when all standard requirements have been met.

(ii) Multi ingredient products where not all ingredients, including additives, are of organic origin may be labelled in the following way (raw material weight):

- Where a minimum of 95% of the ingredients are of certified organic origin, products may be labelled "certified organic" or similar and should carry the logo of the certification programme.
- Where less than 95% but not less than 70% of the ingredients are of certified organic origin, products may not be called "organic". The word "organic" may be used on the principal display in statements like "made with organic ingredients" provided there is a clear statement of the proportion of the organic ingredients. An indication that the product is covered by the certification programme should be used, close to the indication of proportion of organic ingredients.
- Where less than 70% of the ingredients are of certified organic origin, the indication that an ingredient is organic may appear in the ingredients list. Such product may not be called "organic".

(iii) Added water and salt shall not be included in the percentage calculations of organic ingredients. For aquaculture products the use of iodized salt shall be referred on the labels.

(iv) All raw materials of a multi-ingredient product shall be listed on the product label in order of their weight percentage. It shall be apparent which raw materials are of organic certified origin and which are not. All additives shall be listed with their full name.

(v) If herbs and/or spices constitute less than 2% of the total weight of the product, they may be listed as "spices" or "herbs" without stating the percentage.

(vi) Organic products shall not be labelled as GE (genetic engineering) or GM (genetic modification) free in order to avoid potentially misleading claims about the end product. Any reference to genetic engineering on product labels shall be limited to the production method.

(vii) The label of a certified organic product must depict the name and logo of the accredited Certification Body, accreditation number and India Organic Logo

(viii) The accredited Certification Body shall verify the labelling requirement and approve the labels of their certified operators before the labels are used

7. Storage & Transport

(i) Organic products shall be stored at ambient temperature. The following special conditions of storage are permitted

- Controlled atmosphere
- Cooling
- Freezing
- Drying
- Humidity regulation

(ii) Product integrity should be maintained during storage and transportation of organic products. Organic Products must be protected at all times from co-mingling with non-organic products and from contact with materials and substances not permitted for use in organic farming and handling.

(iii) Where only part of the unit is certified and other products are non-organic, the organic products should be stored and handled separately to maintain their identity.

(iv) Bulk stores for organic product should be separate from conventional product stores and clearly labeled to that effect.

(v) Storage areas and transport containers for organic product should be cleaned using methods and materials permitted in organic production. Measures should be taken to prevent possible contamination from any pesticide or other treatment not listed in Annex – 2 of Appendix 1.

Annex 1 (A)

Food Additives Including Carriers for Use in Production of Processed Organic Food

International Numbering System	Product	Preparation of food products		Conditions for use
		Plant origin	Animal origin	
INS 170	Calcium carbonate	√	√	Not for use for colouring/calcium enrichment of products
INS 220	Sulphur dioxide	√	√	For fruit wines without added sugar
INS 270	Lactic acid		√	For concentrated fruit / veg. juice & fermented veg. products
INS 296	Malic acid	√		
INS 290	Carbon dioxide	√	√	
INS 300	Ascorbic acid	√	√	For meat products
INS 306	Tocopheroles, mixed, natural concentrates	√	√	Antioxidant for fats and oils
INS 322	Lecithin	√	√	For milk products (to be obtained without use of bleaches and organic solvents)
325	Sodium lactate		√	For milk based and meat products
INS 330	Citric acid	√	√	For concentrated fruit/veg. Jam, fermented veg. product
INS 331	Sodium citrate	√		
INS 333	Calcium citrate	√		
INS 334	Tartaric acid	√		
INS 335	Sodium tartarate	√		
INS 336	Potassium tartarate	√		
INS 341	Mono calcium phosphate	√		For raising flour only
INS 400	Alginic acid	√	√	For milk based products
INS 401	Sodium alginate	√	√	For milk based products
INS 402	Potassium alginate	√	√	For milk based products
INS 406	Agar	√	√	For milk based and meat products
INS 407	Carrageenan	√	√	For milk products
INS 410	Locust bean gum	√	√	
INS 412	Guar gum	√	√	
INS 414	Arabic gum	√	√	

INS 415	Xanthum gum	√	√	
INS 422	Glycerol	√		For use in plant extracts
INS 440	Pectin	√	√	For milk based products
INS 464	Hydroxy propyl methyl Cellulase	√		For encapsulation material for capsules
INS 500	Sodium carbonate	√	√	For milk product substances
INS 501	Potassium carbonate	√		For drying of grape resins
INS 503	Ammonium carbonate	√		
INS 504	Magnesium carbonate	√		
INS 509	Calcium chloride	√	√	For milk coagulation
INS 516	Calcium sulphate	√		Restricted; For use only as carrier
INS 524	Sodium hydroxide	√		
INS 551	Silicon dioxide	√		Anticaking agent for herbs & spices
INS 553	Talc	√		Coating agent for meat products
INS 938	Argon	√	√	
INS 939	Helium	√	√	
INS 941	Nitrogen	√	√	
INS 948	Oxygen	√	√	

Annex 1 (B)

Processing Aids and Other Products for Use for Processing of Ingredients of Agricultural Origin from Organic Production

Product	Preparation of food products of		Conditions for use
	Plant origin	Animal origin	
Water	√	√	Potable water standards
Calcium chloride	√		Coagulation agent
Calcium carbonate	√		Coagulation agent
Calcium hydroxide	√		
Calcium sulphate	√		Coagulation agent
Magnesium chloride	√		Coagulation agent
Potassium carbonate	√		Drying of grapes
Sodium carbonate	√		Sugar production
Lactic acid		√	For regulation of pH of brine bath in cheese production
Citric acid	√	√	For regulation of pH of brine bath in cheese production; oil production and hydrolysis of starch
Sodium hydroxide	√		Sugar production, oil production from rape seed
Sulphuric acid	√	√	Gelatin production Sugar production
Hydrochloric acid		√	Gelatin production
Ammonium hydroxide		√	Gelatin production
Hydrogen peroxide		√	Gelatin production
Carbon dioxide	√	√	
Nitrogen	√	√	
Ethanol	√	√	Solvent
Tannic acid	√		Filtration aid
Egg white albumin	√		
Casein	√		
Gelatin	√		
Isinglass	√		
Vegetable oils	√	√	Greasing, releasing or antifoaming agent
Silicon dioxide gel	√		
Activated carbon	√		
Talc	√		In compliance with the specific purity criteria for

			food additive
Kaoline	√	√	
Cellulose	√	√	Gelatin production
Diatomaceous earth	√	√	Gelatin production
Perlite	√	√	Gelatin production
Hazel nut shells	√		
Rice meal	√		
Bee wax	√		Releasing agent

Flavouring Agents

(i) Volatile (essential) oils produced by means of solvents such as oil, water, ethanol, carbon dioxide and mechanical and physical processes

(ii) Natural smoke flavour

(iii) Use of natural flavouring preparations should also be approved by the Certification Body

Preparations of Micro-organisms

(i) Preparations of micro-organisms accepted for use in food processing

(ii) Genetically modified microorganisms are excluded

(iii) Bakers yeast produced without bleaches and organic solvents

Ingredients

(i) Drinking water

(ii) Salt

(iii) Minerals (including trace elements) and vitamins where their use is legally required or where severe dietary or nutritional deficiency can be demonstrated.

Annex 2

Approved Products for Packaging of Organic Foodstuffs

Certain products are allowed for use in organic agricultural for packaging of foodstuffs, however, many of these are restricted for use in organic production. In this annex "restricted" means that the conditions and procedures for use shall be set by the accredited certification programme.

Use of plastics for packaging of organic foodstuffs

S. No.	Products	Limitation
1.	4,4'-Bis(2-benzoxazolyl)stilbene	Restricted
2.	9,9-Bis(methoxymethyl)fluorine	Restricted
3.	Carbonic acid, copper salt	
4.	Diethyleneglycol	Restricted
5.	2-(4,6-Diphenyl-1,3,5-triazin-2-yl)-5-(hexyloxy)phenol	
6.	Ethylenediaminetetraacetic acid, copper salt	Restricted
7.	2-(2-Hydroxy-3,5-di-tert-butyl-phenyl-5-chlorobenzotriazole	
8.	2-Methyl-4-isothiazolin-3-one	Restricted
9.	Phosphoric acid, trichlorocthylester	
10.	Polyesters of 1,2 propanediol and/or 1,3-and 1, 4 butanediol and/or polypropyleneglycol with adipic acid, also end-capped with acetic acid or fatty acids C10-C18 or n-octanol and/or n-decanol	Restricted
11.	1,1,1-Trimethylolpropane	
12.	3-hydroxybutanoic acid 3-hydro xypentanoic acid, copolymer	Restricted

Permissible Packaging Material for aquaculture

- Paper, wax paper, paper coated with PE
- Polyethylene (PE), polypropylene (PP), polyacrylic, polyamide (PA) (single compound or as coating)
- Polystyrene cold boxes with PE coating film or inside bag
- Textile packaging (tested for harmful substances)
- Glass other methods (clip seals)