



# ORGANIC BEEKEEPING

## **Rules for organic beekeeping.**

According to National Programme for Organic Production  
(NPOP) - APEDA

## I. Scope

Products obtained from bee hive/s such as honey, propolis royal jelly and bee wax can be certified under "Bee Keeping certification" were as plant products collected from beehives (pollen) may be certified as products from "organic farming". **But in current scenario only honey can be certified under NPOP as a product obtained from bee hives.**

## II. Conversion

The compulsory conversion period has to be followed for colonies and apiaries which are reared were as bees grown in wild and in natural conditions conversion period shall not be applied.

At the time of conversion, the colonies which are in conversion shall be kept in isolation and wax used for building foundation combs shall be made from organic wax. In case any doubtful and suspicious incident has been observed during inspection the organic status shall be downgraded. *Mandatory one year conversion period should be followed for bees reared in colonies and apiaries.*

## III. Choice of breed

While selecting a breed for bee keeping the operator shall give preference to native (Indigenous) species as it is more resistant to local disease and environmental parameters. In case indigenous species is not susceptible prior information has to be provided to the certification body related to same. Further decision will be taken by the certification body.

## IV. Source/ origin

- At the time of apiary/bee colony there should be a detailed proposed plan.

- Natural material should be used to construct bee hives so as to avoid contamination and apiary products.
- Bee wax used for new foundation comb should be from organic production units only.
- In the hives there shall be only natural products such as propolis, wax and plant oils.
- If the colony is infested with any of the disease as per listed in chapter 3, appendix 3 and annexure 1, the colony will not be certified.

## **V. Starting up and renewing bee colonies**

### **A. General rules**

Beehives, swarms on frame shall all be supplied by organic production units, when starting up or renewing a bee colony.

### **B. Origin of non-organic bees**

For the **renovation of apiaries**, 10 % per year of the queen bees and swarms may be replaced by non-organic queen bees and swarms in the organic production unit, provided that queen bees and swarms are placed in hives with combs or comb foundations coming from organic beekeeping production units. In this case, conversion period for apiaries does not apply. But prior intimation has to be given to certification body.

### **C. Exceptional production rules**

In the case of high bee mortality caused by health or catastrophic circumstances, Ecocert may authorize, only on a temporary basis, the renewal or reconstitution of the apiary with non-organic bees, when organic bee colonies are not available. In this case, conversion period for apiaries applies (12 months). Operator has to inform to Ecocert about the consequences and after that additional inspection will be conducted and the conclusion will be decided by the certification officer.

## **VI. Siting of the apiary**

**A location where one or more honey bee colonies are assembled and collectively managed is considered as an Apiary. During production period (flowering time and when beehives are not dormant):** within 3 kilometre radius from the apiary site, nectar and pollen sources shall come **mainly** from organic crops. In case during inspection it is checked and verified that the surrounding area is not having sufficient organic area the project shall be downgraded and certification body shall conduct an additional inspection.

Honey types produced in areas where apiary siting is mainly located near conventional crops do not qualify for organic certification. In this case the certification to such unit will be denied.

The siting of the apiaries shall maintain enough distance 5M away from any sources which could possibly lead to contamination of beehive products (public path or highway, urban centres, motorways, industrial areas, waste dumps, waste incinerators,). This will be checked and verified during inspection and if proper distance is not maintained samples will be collected from such units. In case samples are found to be positive the status will be downgraded.

At the time of apiary set up preference should be given, that apiary site should be close to natural source of clean and hygienic water and bee flora.

Apiary site should be protected from wind, direct sunlight, severe heat, severe cold, rain, wild animals, ants, termites and exposure to insecticides or toxic fumes or poisonous chemicals.

## **VII. Wild collection**

- If wild collection activity is carried out in case of bee keeping the area shall be organic or wild and fulfil the basic nutritional needs of the colony.

- Number of honey bee colonies kept in such an apiary should be minimum in related to forage resources within the same flight, range so as to avoid over stocking.
- All brood or full-depth frames shall be wired to withstand breakage of combs during inspection, migration and extraction, etc.

## **VIII. Housing conditions**

### **A. Beehive materials**

The hives must be made of natural materials posing no risk of contamination to the environment or the bee products.

Construction material should be used in accordance that the material should not have potentially toxic effect on bee hives. During inspection samples shall be taken so verify whether there is some toxic effect on bee hives.

### **B. Bees handling**

Mutilation such as wing clipping of queen bees is strictly prohibited. In case if mutilation is found the certification to that unit will be denied.

### **C. Wax origin**

Wax coming only from organic production unit shall be used. The foundation comb shall also be made from organic wax. Organic Wax procurement records shall be maintained by the operator and it should be provided during document verification.

- The foundation comb shall be made from organic wax.
- Persistent materials may not be used in bee hives where there is a possibility of permeation of the honey and where residues may be distributed in the area through dead bees.

- Natural products such as propolis, wax & plant oils can be used in the hives. The use of the chemical repellants is prohibited during the honey extraction operations

## **IX. Feed**

### **A. General rules**

At the end of the production season, hives must be left with sufficient reserves of pollen and honey to ensure that bees can survive the winter.

### **B. Specifics**

The **“artificial” feeding** of colonies is only permitted under specific circumstances:

- With organic honey, organic sugar or sugar syrup. In case if organic supplement feed is provided to the bees, supplier scope certificate, invoice, transport documents, if possible transaction certificate shall be provided by the operator during inspection.
- where survival of the hives is endangered due to extreme climatic condition the feeding of the colonies shall only be permitted where the survival of the hives is endangered due to climatic conditions & only between the last honey harvest & 15 days before the start of the next nectar or honey dew flow period. But operator shall inform the condition to certification body with appropriate justification and documents.
- At the end of the production season, in bee hive there should be sufficient reserves of honey and pollen so as to survive in the winter.

## **X. Disease prevention and veterinary treatment**

### **A. Hygiene measures**

- Thermal treatments such as steam and direct flame are permitted for beehive disinfection.

- In order to protect frames, beehives and combs against pest and diseases, products can be used listed in chapter 3, Appendix 3, Annexure 2 of NPOP.
- Veterinary medicine shall not be used in bee keeping. In case it is found that veterinary medicines are used by the operator the certification to that unit will not be granted.
- In case of "*Varroa destructor*" infestation, male brood may be destroyed. Formic, lactic, acetic and oxalic acids as well as menthol, thymol, eucalyptol and camphor may also be used.
- When preventive measures have proved to be inefficient, sick or infested colonies must be treated immediately and may be required to be placed in isolation beehives. Beehives kept in isolation has to be recorded and documented and provide during inspection.

## **XI. Cleaning**

- Beehives should be cleaned periodically so as to avoid infection and contamination.
- Every colony should be checked and inspected twice a month in order causing least disturbance and provocation to honey bees. Bee colony cleaning record shall be maintained by the operator and provide the same at the time of inspection.
- Debris accumulated on the bottom board shall be collected in a container and incinerated.
- Pieces of wax combs shall be pooled together and be melted for wax recovery. Old combs shall be melted and comb renewal induced.

## **XII. Records**

### **A. Apiary register**

Organic beekeepers must be able to provide the certification body with a register where the following details are maintained

- A detailed map including beehive locations and foraging areas and when applicable honey and/or pollen analysis results to proof the compliance of foraging areas.
- About feeding: feed type, dates, quantities and identification marks of the designated beehives.
- Pest and diseases treatment records
- Beehive identification, location, migration records
- Super removal dates.

### **B. Extraction records**

Honey extractions (process and dates) and harvested quantities must also be recorded. All the records shall be maintained in the unit itself and should have free access to the inspector during inspection.

### **C. Transaction records**

Operator shall provide free access to inspector for his transaction records such as honey extraction records, sales records, invoice, transport documents etc.

### **D. General records**

All the records mentioned as per standard, checklist, policies and procedure shall be provided at the time of inspection.

## **XIII. Transportation and Migration**

- In case there scarcity of Food or local dearth period or periods are prolonged beyond 6 to 8 weeks continuously the operator can migrate the colonies to the source near by the organic forage from farm(s) or forest(s) either individual or collective migration with prior information to the certification body.
- During transportation clean vehicle shall be used with appropriate records.
- Prior to migration operator has to take prior permission and inform Ecocert about the migratory site(s).



- Before migration all the colonies shall be checked and inspected for any deficiencies like absence of queen bee, food shortage, etc, and such deficiency shall be rectified.
- At the time of migration colonies should be packed so as to –
  - secure in position various hive components, frames in particular;
  - avoid shaking during transit;
  - provide adequate ventilation to the bees;
  - prevent congestion inside;
  - provide feeding or water in transit, if necessary; and
  - prevent honey bees escaping through gaps in entrance gates, and other components.
- Migration of colonies should be preferably done during night or during cool weather and avoid harsh climatic conditions and temperature.
- Mode of transport for migration should be selected and planned in advance so as to avoid damage due to avoidable delay in transit.
- Prior to migration appropriate preparations should be made at the apiary site such as cleaning the apiary site, arranging hive stands and providing clean water.
- First post-migration inspection shall be done within 7 days after the colonies settle down to work. During this inspection, it may be observed whether there are any combs broken, queens lost, bees dead, etc.
- A colony infested with any of the notified as epidemic region, inter-state or inter-regional migration from such area to other regions shall be prohibited.
- Operator shall maintain all the migratory records at his unit mentioning information such as migration purpose, date, means of transport, apiary records, number of migratory sites etc..

#### **XIV. Product Extraction**

- Honey shall be extracted only when the combs are sealed by the honey bees. Extract or unripe honey will lead to fermentation and spoilage.
- Dummy or division boards shall be used for colonies which still fall short of full strength by a couple of combs so as to induce them to the supers.

- The moment nectar starts coming in, supers shall be added to the colonies.
- when the combs are sealed by the honey bees at that time only the honey shall be extracted.
- A producer shall equip himself with at least two supers of such drawn out combs for each colony in his apiary to derive maximum harvest from each Honey flow.
- Product extraction record will be maintained by the operator and provide the same during inspection.

## **XV. Honey Extraction**

- At the time of harvesting the honey, repellent consisting of prohibited substances especially chemical synthetic repellents shall not be used. In case it is noticed that prohibited substances are used the extracted shall be sold as conventional. And additional inspection will be conducted for the same unit.
- Smoke is allowed at the time of honey harvest but precaution shall be taken into consideration so that excessive smoke shall not be used as it may hamper the flavour of honey.
- The place where honey extraction is supposed to be carried out shall be clean and shall have fly proof enclosure so as to avoid contamination. Processing area cleaning records has to be maintained by the operator in the unit itself and shall provide the same during inspection.
- Equipments used at the time of honey extraction shall be cleaned in boiling water before its use. Equipments cleaning records will be maintained by the operator in the unit itself and shall provide the same during inspection.
- Honey extraction from brood combs is prohibited.
- Strainer of 1.40mm shall be used at the time of honey extraction.
- Thickly tinned or galvanized container of stainless steel, aluminium or if of other metal shall be used to collect extracted honey.
- Every extracted honey temporary storage container shall carry a lid (Cover) and a label with appropriate information such as producer, date and place of extraction.

- The staff engaged in the process of honey extraction shall be free from contagious disease and shall wear clean clothes. Unit should have the facility that every employee should be medically checked quarterly and records shall be maintained for the same.
- The staff shall maintain proper personal hygiene and shall clean their hands with a disinfectant soap.
- Honey extracted from the colonies with infectious bee diseases shall be kept separate and not mixed with general lot. This honey shall be pasteurized before marketing. It shall never be fed either in processed or unprocessed form to the bees. Records of honey extracted from infectious colonies shall be maintained by the operator.
- The extracted honey shall be packed in air tight containers and transfer immediately to the pooling and processing centres.
- The honey shall be stored in cool, dry and hygienic place and shall be protected from smoke, heat and insects.
- Honey extraction records shall be maintained by the operator shall provide the same information to the inspector during inspection.

## **XVI. Beeswax Extraction**

- Every operator shall collect every bit of beeswax exclusively from old combs during renewal, bits of bur and brace-honey cells.
- Wax from different honey bee species shall be kept separately.
- Beeswax obtained from cappings is the purest form of wax and, shall be stored separately without mixing it with general recovery of beeswax in apiary.
- The old and discarded combs shall be stored in containers with tight-lids and shall be melted at the earliest to avoid further deterioration and infestation with wax moth.
- Beeswax recovery records shall be maintained by the operator and shall provide the same during inspection.

## **XVII. Conservation of bee flora**

- Operator should also focus on conservation of bee flora because viability of the beekeeping industry depends on the density and composition of local flora.

Trees, shrubs and herbs providing bee forage shall be particularly conserved. Forest vegetation shall not, therefore, be destroyed.

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## **XVIII. Crop Pollination.**

- A producer shall realize that besides harvesting honey and wax, the operator shall also mobilize his honeybees for pollination of agricultural/horticultural crops to increase the agricultural productivity.