



CONTINENTAL TRAINING OF TRAINERS (TOTs) ON BEE DISEASES AND PESTS, PREVENTION AND CONTROL

31st March – 4th April 2014, *icipe, Nairobi, Kenya*

CERTIFICATION OF HONEY AND HIVE PRODUCTS AS PER EU SPECIFICATIONS

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OUTLINE

- Introduction: Bee Products – OIE Terrestrial Code
- What is Organic Beekeeping?
- Why Organic Honey?
- Causes of Residues
- Organic Standards
- Organic Marks
- Objectives of Organic Standards
- EU regulations on Certification
- The Organic Certification Process
- Benefits of Organic Beekeeping





BEE PRODUCTS – OIE Terrestrial Code

Bee products included in the OIE *Terrestrial Code*:

1] Honey:

The natural sweet substance produced by honey bees from the plant nectar of plants, which they collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honey comb to ripen and mature.





Bee Products cont'd

Three forms of honey found in the *Terrestrial Code* include: Extracted, Comb and Strained honey.

a) *Extracted honey*: Any honey removed from the comb.



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Bee Products cont'd

b) Comb honey: Honey kept inside the comb.





c) Strained honey:

Extracted honey that has at a minimum passed through a filter of pore size not greater than 0.42mm.





2] Bee-collected pollen:

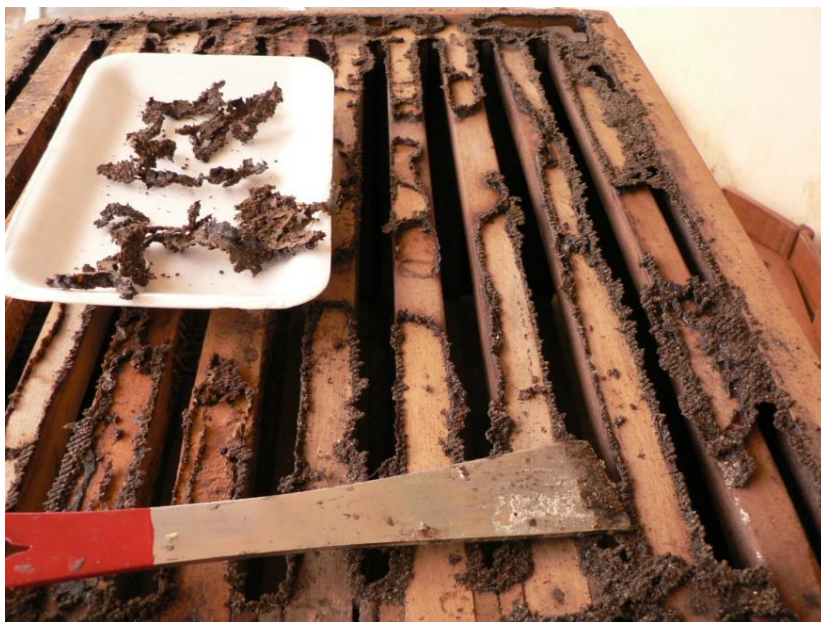
Pollen dislodged from the pollen basket of foraging honey bees and collected in a pollen trap or removed from the cells of honey bee or stingless bee colonies (bee bread)





3] Propolis:

A sticky material used by bees to seal gaps, encapsulate foreign objects and disinfect hive materials.





Bee Products cont'd

There are two forms are found in the *Terrestrial Code* chapters: processed propolis and unprocessed propolis.

- (i) **Processed propolis** is either alcohol extracted (tincture) or powdered.





Bee Products cont'd

(ii) Unprocessed propolis.





4] Beeswax:

A complex mixture of lipids and hydrocarbons that is produced by the wax glands of honey bees.





Bee Products cont'd

Two forms are found in the *Terrestrial Code* chapters: processed and unprocessed beeswax.

- (i) **Processed beeswax** is produced by heating the raw wax to at least 60° C and then allowing it to solidify.





Bee Products cont'd

(ii) **Unprocessed beeswax** is any wax coming from bees that has not followed the process described.





5] Royal Jelly:

A glandular secretion of honey bee worker that is placed in queen cells to feed queen-destined larvae. It is harvested and preserved by freezing or lyophilisation.



Royal Jelly Powder



6] Honey bee venom:

A complex mixture of proteins and low molecular components secreted by the venom glands of honey bees and used to defend the colony.





WHAT IS ORGANIC BEEKEEPING?

Beekeeping practiced in clean environment, without intensive agriculture, use of synthetic feed and harmful chemicals for the bees



Apiaries located next to forest and Government protected land away from contamination



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Organic Beekeeping cont'd

For honey to be certified organic, producers have to meet a set of organic standards and conditions:

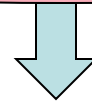
- Honey bees foraging area,
- Source of the nectar,
- Bees management,
- Honey extracting process,
- Transportation,
- Processing temperature and packaging





WHY ORGANIC HONEY?

Concern about pesticide and fertilizer residues in foods!!!



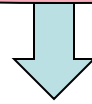
- 1] There's no guarantee that bees will be foraging in flowers free of pesticides, synthetic fertilizers or pollen "drift" from genetically-modified crops.





Why Organic Honey? Cont'd

Concern about pesticide and fertilizer residues in foods!!!



2) Issue of antibiotics for bee diseases.



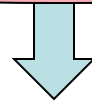
Use of granular sugar with terramycin (oxytetracycline HCL) as a preventative for American foul brood disease. <http://dowgardens.wix.com/v>





Why Organic Honey? Cont'd

Concern about pesticide and fertilizer residues in foods!!!



3) Residues in honey:

- Use of medicines to treat honeybee diseases;
- Introduced during some form of honeybee management;
- Environmental pollution





CAUSES OF RESIDUES

Residues may be present from the following:

- Arising from the environment
- Heavy metals
- Radioactivity
- GM pollen
- Pesticides
- Bacteria

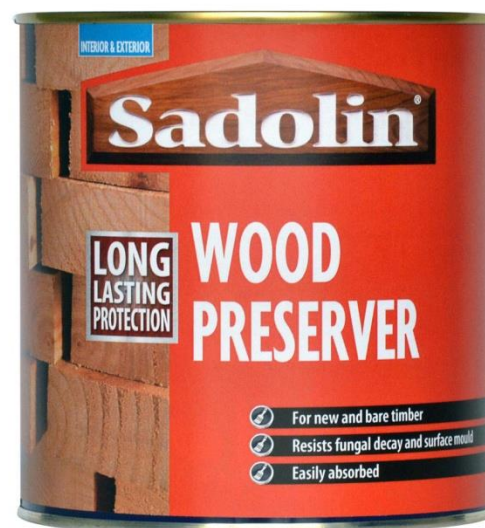




Causes of Residues cont'd

Introduced by the beekeeper:

- Medicines to control the Varroa mite (predator of honeybees)
- Antibiotics (used to control bacterial diseases of bees - American foulbrood & European foulbrood)
- Residues of wood preservatives
- Chemicals used in honey harvest (rarely used)





Causes of Residues cont'd

- Chemicals to control other bee pests and predators



DoMyOwnPestControl.com





ORGANIC STANDARDS

Rules and regulations that define how an organic product must be made.

- 1) Organic standards ensure that one can be certain that they are buying a genuine organic product, produced in line with organic principles.



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Organic Standards cont'd

- 2) Imported organic foods must have been produced and inspected to equivalent standards.





Organic Standards cont'd

- 3) There must also be full traceability of organic ingredients back to the farmer





Organic Standards cont'd

Examples of Organic Standards:

- East African Organic Standard – East Africa
- (EC) No 834/2007
- National Organic Programme (NOP) - USA
- Japanese Agricultural Standards (JAS) - Japan
- Naturland - German
- KRAV -Sweden
- Soil Association - UK





ORGANIC MARKS

Service marks, which act as branding to consumers:



United States



European Union



Germany (now EU
Label used)



Canada



Japan



Naturally Natured

East Africa



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Organic Marks cont'd

- They are granted on the basis of compliance with the Standards for Organic Production used.
- They communicate the genuineness, as well as the origin of the product.
- Only certified products may be labeled with the certification mark.





OBJECTIVES OF ORGANIC STANDARDS

- Employ long term, ecological system based organic management;
- Assure long term, biologically-based soil fertility
- Avoid/minimise synthetic inputs at all stages of product chain;





Objectives Of Organic Standards cont'd

- Minimise pollution and degradation production/ processing unit;
- Exclude certain unproven, unnatural and harmful technologies from the system;
- Avoid pollution from surrounding environment;





Objectives Of Organic Standards cont'd

- Treat animals responsibly;
- Promote the natural health of animals;
- Maintain organic integrity throughout the supply chain;





EU REGULATIONS ON CERTIFICATION REQUIREMENTS

1) Foraging:

For a radius of 3km (EU regulation) or 4miles (UK Soil Association standards) around an apiary, nectar and pollen sources must be essentially either organic or wild/uncultivated.

This area must not be subject to significant sources of pollution from roads, industry or urban centres





2) Hive Construction:

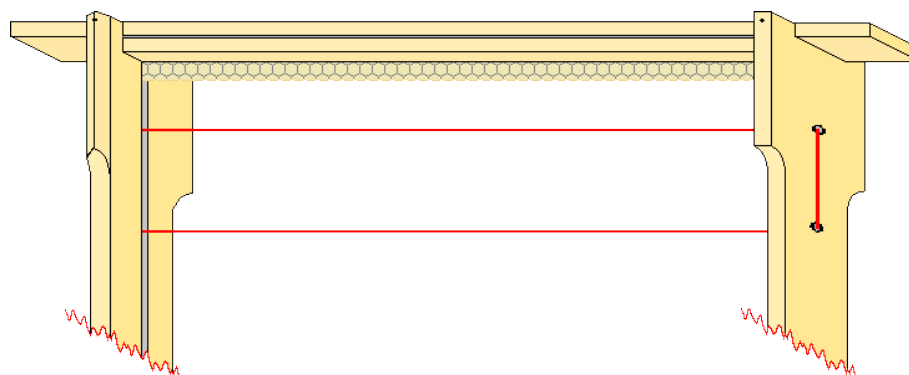
The hives must be made of natural materials, without synthetic paints/varnishes/preservatives.





3) Foundation comb:

The bee wax for new foundations must in principle originate from organic production units and must not be treated with unacceptable pest control agents.





4) Bee Feeding:

At end of a production season, the hives must be left with reserves of honey and pollen sufficiently abundant to survive the period without nectar/honeydew.

Artificial feeding of colonies is only allowed as exception and with certified organic honey or otherwise organically produced sugar products.





5) Disease:

Diseases must be prevented as far as possible. If in spite of preventions the colonies become sick or infested, legally permitted phytotherapeutic products shall be used in preference to allopathic products.

For treatment of *Varroa*, only the following products are permitted: Formic acid, Lactic acid, Acetic acid, Oxalic acid or Menthol, Thymol, Eucalyptus and Camphor.



JPluta/2014
GeorgiaBees.blogspot.com





- 6) Appropriate breed shall be chosen with regard to optimal adaptation to local conditions and disease resistance. NO genetically altered bee species may be used.

For first certification, all colonies (not certified organic yet) will undergo one year conversion period.





7) Honey Harvesting

Use of synthetic repellents during harvest is prohibited. Destruction of bees in the combs as a method associated with the harvesting of beekeeping products is prohibited.

Removal of supers and the honey extraction must be duly documented.





THE ORGANIC CERTIFICATION PROCESS

Risk Assessment

- Survey location apiary sites and surrounding activities

Awareness Creation

- Capacity building of line Government Ministry and Project partner staff
- Capacity building of beekeepers' representatives

Field officers

- Selection of Field Officers from the beekeeping groups

ICS Training

- Training on Internal Control Systems (ICS) for Field Officers (FOs) (Honey value chain; Risk management; Documentation; Development of ICS manual etc)

Internal Inspection

- Registration of beekeepers by FOs (Develop beekeepers lists/data; Assess if there are risks - hives location; Fill farm entrance form & Sign an agreement)
- Internal Inspection by FOs (checking if beekeepers comply with the standards)





Certification Process cont'd

External Inspection

- Evaluate if the ICS is working;
- Interview beekeepers to verify ICS training;
- Inspect the apiary sites;
- The product flow;
- Post Harvest handling;
- Preparation of summary report

Inspection Results

- Communication of inspection results (official conversion begins)

Issuance of Certificate

- Certification Committee decision on issuing certificate;
- Issuance of organic certificate

Capacity Building

- Continuous capacity building of beekeepers at community level





BENEFITS OF ORGANIC CERTIFICATION

- Organic certification verifies that the farm or handling facility complies with organic regulations.
- Certification allows one to sell, label, and represent their products as organic.
- Use of the organic logo on products to demonstrate compliance and communicate to clients (retailers, traders, importers, etc.)





Benefits of Organic Certification cont'd

- Ensure greater access to existing and fast-growing markets
- Help protect the environment from harmful products and processes and preserve animal welfare





Benefits of Organic Certification - Beekeeper

Being certified organic, helps beekeepers:

- Receive premium prices for their products (honey and hive-based products);
- Access local, regional, and international markets;



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Benefits of Organic Certification - Beekeepers

- Protect natural resources;
- Support local economies;
- Access additional funding and technical assistance programs.





THANK YOU

