Certification of Organic Apiculture - Quality Building and Control -
CERTIFICATION / ACCREDITATION

based on ISO Guide 65 / EN 45011

• **CERTIFICATION** is a well-defined procedure to verify the compliance with regulations for products and the production methods including related trade sectors.

• Consists of the issuance of an **official document** by authorities or an **accredited** private institute or agency.

• **ACCREDITATION** - According to ISO/IEC 17011:2004 – is a confirmation by a third party to state formally the certification agencies’ competence of executing the task of evaluating the conformity with legal or private regulations.

• Is granted by **official bodies** – e.g. EU-COMMISSION (resp. their subsidiaries) and/or international associations – e.g. IFOAM.
WHY CERTIFICATION?

• CONSUMER’S DEMAND IN A SPECIAL DISTINGUISHABLE FOOD QUALITY
• ACCESS TO GROWING ORGANIC MARKETS
• RELIABLE STANDARDIZED LABELLING
• VERIFICATION OF PREMIUM QUALITY
• JUSTIFICATION OF PREMIUM PRICE
• PROTECTION FROM FRAUD
• SUPPORT OF IDEAL-BASED SYSTEMS
The fundament of organic quality

- natural resources
- knowledge and skills
- quality management system
- definition of standards
- confidence in partners
- conviction
- honesty
- credibility

= largely a matter of trust
ORGANIC NORMS AND GUIDELINES


USA  National Organic Programme

JAPAN  Japanese Agricultural Standard

„Third countries“ with organic regulations accepted as being equivalent to the EU-norms: **Switzerland, Israel, Argentina, Australia, Costa Rica, India, Tunesia, NewZeeland**

Private association  DEMETER  NATURLAND  KRAV

standards  SOIL ASSOCIATION  BIOSUISSE  BIOAUSTRIA

International and national guidelines on quality parameters, hygiene, residues etc., as **Codex Alimentarius, IFOAM** (Int. Federation of Organic Agricultural Movements)
<table>
<thead>
<tr>
<th>HONEY EXPORTING COUNTRIES (into EU)</th>
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<tbody>
<tr>
<td>Canada</td>
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<tr>
<td>Guatemala</td>
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<tr>
<td>Brazil</td>
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<td>Ukraine</td>
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<td>Australia</td>
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Organic regulations in these countries are not accepted as being equivalent to EU-guidelines. To import a bee product as organic into the EU, certification must be executed by an EU-accredited control body.
CERTIFICATION BASICS

- formal requirements
  registration by authorities
  contract with agency
  detailed unit description
  conversion plan

- verification of compliance
  audit: inspection and control of compliance with guidelines / regulations

- issue of certificate
  license to use organic labelling
THE CERTIFICATION AGENCY

- is supervised by authorities (e.g. ministry for agriculture and/or consumer protection), conducts witness audits
- needs annual renewal of it’s approval
- must present a comprehensive and actualized quality management handbook
- employs experts to conduct audits
- carries out regular trainings for inspection staff to ensure their appropriate qualification and competence
- provides means and material to unify formal procedures
- issues (or refuses) certificates after executing an annual audit (e.g. organic foodstuff, textiles, cosmetics, social standards)
- executes unannounced inspections, risk based or in case of suspect
GENERAL INSPECTION REQUIREMENTS

• inspector’s motivation and competence
• producer’s competence and willingness
• thorough preparation for inspection
• appropriate schedule
• availability of understandable documentation and accounts department
• access to all enterprise units on demand
• possible identification of all productive elements and products
• reporting / assessment of compliance
• documentation of deviations, conditions, sanctions, suggestions
• routine or spontaneous sampling for analysis
Quality management

- systematic planning and implementation
- unit description / updates
- definition of critical points
- documentation of assets / updates
- documentation of action
- traceability / lot number system
- competence assignments
- internal audit system in group certification
- regular training for employees / workers
Traceable documentation

- updated unit description
- nectar flow calendar
- migration report
- colony / apiary record sheet
- pest treatments
- feeding
- propagation
- harvest lots (type of honey, origin, quantity, date)
- processing / bottling records
- product flow / accounts / stock inventory
Inspection / audit

- inspector‘s introduction and legitimation
- explaining the course of the inspection before starting
- certification status of the enterprise
documentation complete and up to date?
delivery notes, invoices, organic designation,
storage accounts, conversion plan, apiary record
books, subcontracts, analysis reports

1. Check of administration
2. Inspection tour of the enterprise:

Visiting
- office(s)
- apiaries
- processing rooms
- storage rooms
- subcontractor‘s unit (if applicable)

Obligatory detailed checks
- implementation of amendments
- criticized conditions of last year
- changes in the unit description
- subcontracts
3. **Spot-checking:**

- locations & surroundings
- foraging resources / migration records
- colonies
- hive material & tools
- harvesting equipment
- transport and storage conditions
- stock of supplies, fodder, medicaments and wax,
- general hygiene conditions
- maintenance products / tools
- balance check with documentation
- demarcation to conventional units
- application of lot-number system
- traceability of product / production chain
- sampling (routine or in case of suspect)
4. Conclusive action / reporting

- identification of critical points: point out in the report
- check of compliances: describe derogations
- dealing with non-conformities: fix sanctions / conditions
- pronouncing recommendations / stipulations: clear description of desirable resp. necessary amendments,
- fix dates / deadlines for implementation
- immediate measures: in case of suspect ban on sales of lots in question untill decision of the certification agency
- sampling for analysis
THE ANNUAL AUDIT – CRITICAL POINTS

• announced inspection dates
• reliability of documentation
• sufficient audit time
• competence of inspectors
• appraisal of border cases
• identification of non-compliances (e.g. GMO crops, sources of contamination)
• lax internal control system (in case of group certification)
• adequate objective criteria
• conflict of interest
GMO cultivation 2009:
134 million hectares

- **Entwicklungsländer**: developing countries
- **Industrieländer**: industrialized countries
- **gesamt**: total
<table>
<thead>
<tr>
<th>Crop</th>
<th>Total</th>
<th>GMO</th>
<th>GMO Ratio</th>
</tr>
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<tbody>
<tr>
<td>Soybean</td>
<td>90</td>
<td>69</td>
<td>77%</td>
</tr>
<tr>
<td>Corn</td>
<td>158</td>
<td>42</td>
<td>26%</td>
</tr>
<tr>
<td>Cotton</td>
<td>33</td>
<td>16</td>
<td>49%</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>31</td>
<td>6.4</td>
<td>21%</td>
</tr>
</tbody>
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Other GMO crops: sugar beet, papaya, tomato, paprica, poplar, roses
Group certification for smallholders

- reduced certification costs
- access to attractive markets
- shared investment in common facilities and equipment – strengthening social structures

applicable in case of smallholder producer groups

formal individual contracts between producer and cooperative

annual control by internal control system (ICS)

annual control of \( \sqrt{n + 1} \) beekeepers by external inspector \( (n = \text{total number of producers}) \)

routine analysis to verify observance of guidelines
Sketch for sampling honey and wax for sampling purpose e.g. Co-operative of 9 producers in 3 villages

The internal inspector takes two samples from each beekeeper; one for analysis, the other for reference/cross-checking, which remains with the producer or control body. A sample lot comprising several barrels should come from at least 10 % of the containers. From each group the samples are homogenized. From the resulting collective lots one sample for analysis and one for reference is taken by the external inspector. Collective lots are again homogenized. One sample is sent to the laboratory, the reference sample remains with the certifying agency.

**Group 1**
- BEEKEEPER/CODE
  - 1 A
  - 1 B
  - 1 C

Homogenize: Collective lot: 1 ABC

**Group 2**
- BEEKEEPER/CODE
  - 2 A
  - 2 B

Homogenize: Collective lot: 2 AB

**Group 3**
- BEEKEEPER/CODE
  - 3 A
  - 3 B
  - 3 C
  - 3 D

Homogenize: Collective lot: 3 ABCD

**Collecting point**
- Sampling plan and documentation
- Deposit of reference samples (9 x from producers, 3 + 1 X from collective lots)

**Analysis lab**
- Reporting to client: Certification body or importer

**Labelling of sampling containers:** Code-/lot-no., substance, designation of analysis, date of harvest, date and place of sampling, inspector's name, signature of inspector and producer

**Entry in sampling plan!!**

**Storage of reference samples:** cool, dark, airtight
CRITICAL POINTS OF CERTIFICATION

- distinguish between 30 different standards
- interpretation of standards
- consensus with authorities
- principal – agent relationship
- financial constraint
- communication deficiencies
- unidentified scope of decisions
- incomplete surveillance
- extra costs for foreign inspectors
- risk assessment of processors, traders,
- priority of financial interest

The Global Organic Market Access (GOMA) Project is the continuation of the International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF), both jointly led by FAO, IFOAM and UNCTAD
OVERALL UNSATISFACTORY ASPECTS

- questionable suitability of regulations
- limited harmonisation of guidelines among countries
- standards not applicable everywhere
- reproach of neo-colonialism
- uncomplete list of „Third Countries“
- slowness of adaptation process
- meeting requirements of group certification
- economic risks in case of re-certification denial
Quality degradation is irreversible

PHASE 1
QUALITY BUILDUP

PHASE 2
QUALITY DECOMPOSITION

HARVEST

DEGRADATION

HONEY REMOVAL
GAP, MOISTURE CHECK

PROCESSING
HYGIENE (CONTAMINATION), PRESERVATION OF QUALITY CHARACTERISTICS

STORAGE
HYGIENE, TEMPERATURE, DURATION, EXPOSURE TO LIGHT

BOTTLING
HYGIENE, FILTRATION, HEATING, BLENDING

PRIMARY PRODUCT = QUALITY MAXIMUM AT MOMENT OF HARVEST

apiary location / nectar sources
animal health
working methods
tools and equipment
beekeeper’s skills
Apiary location
Bee hives
Treatment / feeding
Equipment & tools
Working methods / GAP
Processing / storage
Hygiene
Identification / Separation
WWWs:
apiservices.com
apimondia2003.com
beesfordevelopment.org
fibl.org
kohala.net/bees
ibra.org.uk
apis.admin.ch
apitherapy.de
ifoam.org
icimod.org
bee-hexagon.net