

GBP (Good Beekeeping Practice)



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Good beekeeping practice is the foundation for sustainable development of beekeeping, which ensure quality and safety of honey.



- The presence of contaminants in honey today is the most important factor that reduces the quality and safety of honey.
- The contamination sources can be divided into environmental and apicultural ones.

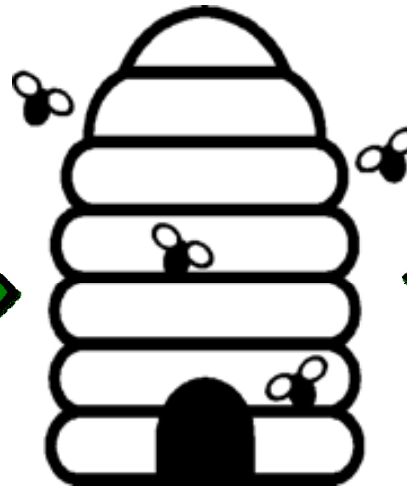
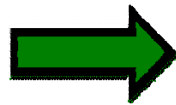
Contamination sources

Environment

Heavy metals
Radioactivity
Pesticides
Bacteria
GMO

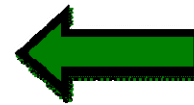


Plants, Air
Water

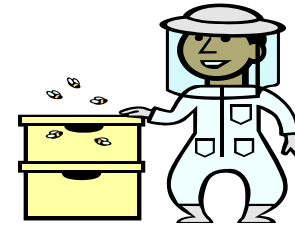


Beekeeping

incorrect beekeeping
practice



The analysis of contamination dangers have shown, that the greatest danger for the contamination of honey and other bee products comes less from the environment, but from incorrect apicultural practice.



The simplest way to solve the problem of contamination of bee products is the introduction of self-control and good beekeeping practice.

Good beekeeping practice is a set of rules and guidelines to be followed during the manufacturing process.

The Good beekeeping practice look for a higher degree of conscience and responsibility from the beekeepers.

Good beekeeping practice principles:

1. Site Selection and Location

1.1 Locate apiaries where there are adequate bee pastures in relation to the number of hives.

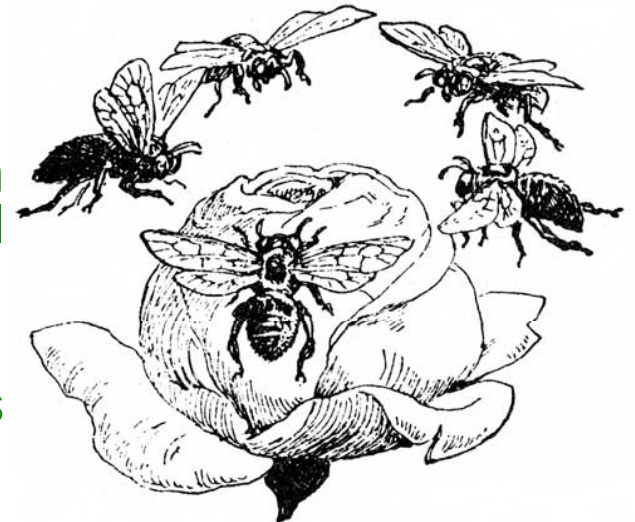
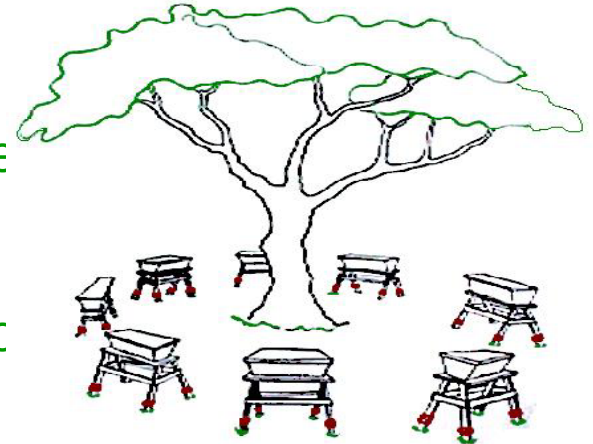
1.2 Locate apiaries where there is access to water, pollen and nectar.

1.3 Select apiary location that provides adequate shade to protect against the midday sun.

1.4 Keep apiaries a fair distance away from roadways, walkways, dwelling and commercial activities.

1.5 Place apiaries in areas free from hazards example flooding, fire and heavy chemical use.

1.6 Steep slopes should be avoided.



2. Code of Dress and **Personal Hygiene**

- 2.1 Avoid wearing colourful and woolly clothing when working with bees
- 2.2 Clothing should be free from dirt and exposure to other sources of food contamination, bee colonies or products
- 2.3 Footwear should be washed regularly between colony inspections, to avoid introduction of faecal or organic matter
- 2.4 Avoid high scented fragrance/body odour when working with bees.
- 2.5 Hands should be washed
- 2.6 Avoid sneezing and coughing over the hive



3. Sanitation and Equipment

- 3.1 All beekeeping equipment must be maintained in sanitary conditions.
- 3.2 Use separate containers for (1) routine tools e.g. hive tool and (2) for occasional use equipment e.g. queen cages
- 3.3 Use a container for rubbish or material removed e.g. propolis, dead bees
- 3.4. Use a sterilisation bucket for used tools and equipment should you plan to work with more than one colony (with suitable solution e.g. washing soda Na_2CO_3 ,)
- 3.5 Protect equipment from contact with other bees.





Think ! Prepare in advance before inspecting and carrying out procedures:

- What am I planning to do today?
- Do I have the clean equipment?
- What other eventualities should I plan for?

4. Apiary Bio-Security

- 4.1** Keep hives at a suitable height off the ground, placed above ground that can be inspected and cleaned at each inspection
- 4.2** Distance between hives should be greater than 1.2 m, and entrances oriented to avoid bees drifting between hives
- 4.3.** Beekeepers should work quickly and efficiently when inspecting
- 4.4** Replace old dark honeycomb at regular interval
- 4.5** Manage beehives to reduce brood laying in honey frames
- 4.6** Maintain high bee population through proper hive management
- 4.7.** Know the signs of bee diseases and pests: regularly check bees and hives and report all pests and diseases.
- 4.8** Manage veterinary medicines use so as to maintain international residue level if present.

5. Inter Apiary procedures and rules

5.1 Do not introduce new bees, swarms, or colonies without approval and/or inspection by a regional bee inspector

5.2 Re-queening must be from a legal source



5.3 Use an isolation apiary for new colonies or swarms for a minimum of 48 hours

5.4 Inspect and treat all new introductions for varroa

6. Feeding Bees

- 6.1 Honeybees should only be fed for brood stimulation and to prevent starvation.
- 6.2 Provide honeybee with chemical free sugar and pollen substitute during dearth period.
- 6.3 Never feed honeybees enough for storage.
- 6.4 Honeybee should have access to clean water free from chemical and toxin

7. Honey harvest

7.1 Harvest honey from bee combs that are no less than 2/3 sealed.

7.2 Harvest honey with less than 20 % water

7.3 Extract and process honey under hygienic conditions.

7.4 Filter honey and allow it to settle for at least 10 days.

7.5 Do not expose honey to excessive heat.

7.6 Store and package honey in approved food grade containers and away from hazardous material.

7.7 Avoid storage below 23° C to avoid crystallization.

Contaminants of bee products for beekeeping and control measures corresponding to “good beekeeping practices

1. Antibiotics in honey

Source of contamination: control of bacterial disease with antibiotics

Control measure: alternative control without use of antibiotics

2. Synthetic acaricides in beeswax, propolis and honey

Source of contamination: Varroa control with synthetic acaricides

Control measure: alternative Varroa control without use of synthetic acaricides

3. Pesticides in honey and beeswax

Source of contamination: control of wax moth with pesticides

Control measure: wax moth control by alternative measures

4. Repellents in honey

Source of contamination: use of synthetic repellents at the honey harvest

Control measure: use of smoke

5. Synthetic fungicides in honey

Source of contamination: control of ascospherosis by fungicides

Control measure: alternative measures

6. Heavy metals

Source of contamination: honey recipients

Control measure: use recipients which do not diffuse heavy metals into honey

7. Wood protectors in honey

Source of contamination: pesticides from wood protectors

Control measure: use of wood protectors containing no pesticides

This measures can be taken by the beekeepers to insure a minimal contamination of honey.

Production of honey according to Good Apicultural Practice, without the use of toxic chemicals is a guarantee for a good, nature-pure honey.



**Thank you very much for
your attention**