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BPRACTICES PROJECT

BPRACTICES: first attempt of definition of Good Beekeeping Practices (GBPs)

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Nowadays, beekeeping faces numerous challenges, and numerous disorders that affect honeybee colonies, including the potential introduction and spread of bee diseases, the effects of pesticides and climatic change. In this context, the "BPRACTICES" project, funded from the European Union's Horizon 2020 research and innovation programme aims to develop a system of sustainable apiculture by implementing innovative management practices (Good Beekeeping Practices - GBPs).

Good beekeeping practices(GBPs) are those integrated and sustainable activities which beekeepers apply for the hive management to obtain an optimal health for honeybees, positive socioeconomic impacts (e.g. beekeepers and consumers health protection) and to ensure environmental protection.
The application of GBPs results in a positive effect on the wellbeing of honeybee colonies, on food safety and environmental protection, thus guaranteeing high production standards.

An essential part of the Good Beekeeping Practices (GBP) are the preclinical indicators, which allow to diagnose infection or infestation before symptoms appear, representing an essential tool for prevention. These preclinical indicators will be identified and interpreted using innovative laboratory diagnostic methods and matrices from the hive. Examples are the preclinical diagnosis from powder sugar for American Foulbrood (Paenibacillus larvae, AFB) or European Foulbrood (Melissococcus plutonius, EFB), the preclinical detection of the SHB from bottom hive debris by Real-time PCR, or the yeast Kodomaea ohmeri as an indicator for the presence of SHB.

The risk of residues in honeybee products due to chemical treatments is reduced through the application of GBPs, thus guaranteeing quality and safety. GBPs also avoid productivity losses. Preventive GBPs represent an opportunity to ensure the improvement of honeybee health and consequently increase the performance of honeybee colonies, the profitability of the beekeeping operation and the pollination service provided by honeybees. Resilience of the beekeeping sector, its sustainability and the income of beekeepers increase when sanitary problems are prevented and costs (e.g. for treatments, colony losses, production decrease) are reduced. The implementation of GBPs provides a direct benefit to beekeepers, supporting the sector. In conclusion, by improving beekeeping management through GBPs, honeybee health, bee products safety, and the competitiveness and resilience of the apicultural sector are improved at all levels.