



factsheet 02

Validating Best Beekeeping Practices



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Introduction

This factsheet reveals the final results of validating the first set of Best Beekeeping Practices, collaboratively developed by beekeepers, advisors, researchers, and experts in the B-THENET project in the year 2023



Terms and definitions:

Good Beekeeping Practices (GBPs)

Integrative activities that beekeepers apply for on-apiary production to attain optimal health for humans, honey bees and the environment.

Biosecurity Measures in Beekeeping (BMBs)

Operational activities implemented to reduce the risk of introduction and spread of specific honey bee disease agents.

Best beekeeping practices (BBPs)

Good Beekeeping Practices (GBPs) and Biosecurity Measures in Beekeeping (BMBs) that have been adapted to a specific geographical context (e.g., different climatic and environmental conditions) and a specific beekeeping context (e.g., different bee genetics, beekeeping equipment, and diseases), and therefore represent the state of the art of beekeeping for that given area.



What Happened in 2023

In 2023, twenty-two Good Beekeeping Practices and Biosecurity Measures were developed under the themes of "Apiary set-up and management/maintenance" (13 practices) and "Varroosis" (9 practices). The 13 National B-THENET Centres, spanning 13 EU countries, developed these practices in their national languages, resulting in 280 tailored best beekeeping practices reflecting local beekeeping realities. These practices were shared online, allowing active participation and refinement by European beekeepers and advisors from September 2023 to December 2023.

Who Was Involved

Beekeepers and advisors invited by National B-THENET Centres across **Austria, Belgium, Croatia, Denmark, Germany, Greece, Hungary, Italy, Latvia, Poland, Slovakia, Spain, and Sweden** participated.

When

The exchange and validation process occurred from September 2023 to December 2023.

How

Each practice underwent assessment, refinement, and integration to align with national beekeeping realities. Exchange events involved beekeepers and advisors voting (thumbs up/down) on the Exchange Platform to express agreement or disagreement with the description of each practice.

Methodology

The validation of the 22 practices on the Exchange Platform occurred both online and in person.

The validation involved platform users (beekeepers and advisors) assessing the practices for comprehensiveness and alignment with the national approach to beekeeping.

Users interacted by adding comments, asking questions, and providing tips, along with expressing agreement or disagreement through a thumb up/thumb down feature.

Rate this practice!  **14**  **0**

The Exchange meetings organised by the 13 National B-THENET Centres from September to December 2023 facilitated final validation through collaborative improvement and voting by beekeepers and advisors using the platform feature.

Validation Criteria

At the end of December 2023, practices were considered validated only if they met three criteria:

- Each national-level practice received at least 10 votes.
- The EU beekeeping and advisor community on the platform provided $\geq 75\%$ positive votes.
- National B-THENET Centres confirmed the readiness of Best Beekeeping Practices for migration to the Repository Platform, having been duly validated by beekeepers, advisors, and other stakeholders.



Results

Out of the 286 practices, 274 met the validation criteria, earning them the title of "Best Beekeeping Practices" (BBPs). The list of validated practices, incorporating inputs from all 13 National B-THENET Centres, will be available in 13 languages on the B-THENET Repository Platform in April 2024. These practices will serve as certified training material for EU beekeepers and advisors.

Access the BBPs here: [B-THENET Repository Platform](#)

List of Best Beekeeping Practices validated in 2023 by the multiple actors of the project B-THENET is below:

GOOD BEEKEEPING PRACTICES		AT	BE	DE	DK	EL	ES	HR	HU	IT	PL	SE	SI	SK
APIARY SET-UP AND MANAGEMENT/MAINTENANCE														
PROPERLY PLACE HIVES IN THE APIARY														
01	Avoiding exposure to pollutants (e.g., pesticides, heavy metals, etc.)	x	x	x	x	x	x	x	x	x	x	x	x	x
02	Setting-up apiaries in an area accessible to vehicles (e.g., relevance of solid/dry ground)	x	x	x	x	x	x	x	x	x	x	x	x	x
03	Avoiding areas where allergenic (e.g., Ambrosia trifida and Artemisia vulgaris) or toxic (e.g., containing pyrrolizidine alkaloids, like Echium spp., Eupatorium and Senecio spp. etc.) plants could be found in a significant quantity	x	/	x	x	x	x	x	x	x	x	x	x	x
04	Avoiding areas exposed to excessive humidity and wind	x	x	x	x	x	x	x	x	x	x	x	x	x
05	Ensuring presence of trees (or other barriers) to create protection against weather stressors (e.g., heat, wind etc.)	x	x	x	x	x	x	x	x	x	x	x	x	x
06	Maintaining appropriate distance from other apiaries (for hive production and bee health)	x	x	x	x	x	x	x	x	x	x	x	x	x
07	Having enough space for storage rooms/working tools	x	x	x	x	x	x	x	x	x	x	x	x	x
08	Keeping safe distance from houses/ villages (for human safety)	x	x	x	/	x	x	x	x	x	x	x	x	x
09	Preventing theft of hives (e.g., assess presence/build a fence around the apiary)	x	x	x	x	x	x	x	x	x	x	x	x	x
10	Keeping an appropriate number of hives (e.g., consider the amount of melliferous plants and sources of water available in the area where the apiary is located)	x	x	x	/	x	x	x	x	x	x	x	x	x
11	Seasonally relocating the apiary (e.g., taking into account the season, wintering close to warmer areas)	x	x	x	x	x	x	x	x	x	x	x	x	x
12	Proper positioning of the hive (e.g., providing hives with a proper stand, guaranteeing proper space between hives providing a proper orientation of the hive entrances so that sun can reach them from the early morning hours to sunset)	x	x	x	x	x	x	x	x	x	x	x	x	x
13	Avoiding obstacles for the bees (e.g., high grass/snow in front of the hive entrance)	x	x	x	x	x	x	x	x	x	x	x	x	x

BIOSECURITY MEASURES
VARROOSIS
GUARANTEE BEST EFFICACY OF ANTI-VARROA TREATMENTS,
ESPECIALLY WITH ORGANIC COMPOUNDS

	AT	BE	DE	DK	EL	ES	HR	HU	IT	PL	SE	SI	SK
01 Assessment of varroa infestation level during the beekeeping season	x	x	x	x	x	x	x	x	x	x	x	x	x
02 Identification of the best moment for varroa treatments according to the national climatic areas.	x	x	x	x	x	x	x	x	x	x	x	x	x
03 Use of oxalic acid (including sublimated)	x	x	x	x	x	x	*	x	x	x	x	x	x
04 Use of formic acid	x	x	x	x	x	x	x	x	x	x	x	x	x
05 Use of thymol (e.g., applying only when environmental temperature is high enough).	/	x	/	x	x	x	x	x	x	x	x	x	x
06 Use other low environmental impact compounds (if medicines are available in your country)	x	x	x	x	x	x	/	x	x	x	x	/	x
07 Brood removal (e.g., partial drone/worker brood removal or total brood removal/shook swarm)	x	x	x	x	x	x	x	x	x	x	x	x	x
08 Queen caging (e.g., use of cages that do not permit the queen to lay eggs or trapping comb)	x	x	x	x	x	x	x	x	x	x	/	x	x
09 Heat treatments	x	/	x	x	x	x	/	x	x	x	/	x	x

Glossary: Country Codes

AT	BE	DE	DK	EL	ES	HR	HU	IT	PL	SE	SI	SK
Austria	Belgium	Germany	Denmark	Greece	Spain	Croatia	Hungary	Italy	Poland	Sweden	Slovenia	Slovakia

Description:

* - It is not registered and for use in apiary-allowed veterinary medicine (EU level)

X = Validated

/ = not validated

They reflect the national approaches to beekeeping of the countries that participated in their development, highlighting the differences driven by climatic and environmental conditions, different bee genetics, beekeeping equipment, and diseases. This will provide national beekeepers and advisors with verified knowledge tailored to their local conditions and co-created with their active contribution.

Disclaimer

Practices lacking validation will undergo refinement in Exchange meetings to seek approval from national beekeeper and advisor communities. It's important to note that not all practices developed in 2023 have been easily accepted and universally validated as best beekeeping practices, as seen in Sweden and Croatia, where certain practices were downvoted due to feasibility, economic sustainability, or non-adoption of the described technique. This underscores the diversity in European beekeeping and emphasises the need to evaluate each practice with national stakeholders to align with specific country needs.

Conclusion

These validated Best Beekeeping Practices will serve as training material, offering national and international certification through B-THENET Centres.

Accessible in 13 languages, the Best Beekeeping Practices feature step-by-step protocols, images, tags, links to innovations, and scientific references. Future efforts include harmonising the Best Beekeeping Practices in English, detailing variations across project countries. Practices not validated by December 2023 have undergone refinement and active exchange, with validated BBPs published in the Repository Platform following reassessment April 2024. The second set of Best Beekeeping Practices will be validated by the end of 2024 in the themes “Colony set-up and management/maintenance” and “American foulbrood”.

Explore the Methodology for Practice Analysis in this factsheet.

This document provides an overview of the methodology employed by National B-THENET Centres to assess priority beekeeping practices identified by beekeepers in the EU.

Factsheet 1

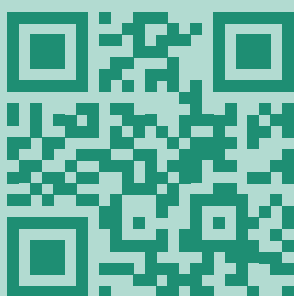


What is B-THENET?

B-THENET is the first EU thematic network for sustainable beekeeping.

B-THENET brings together different actors and their expertise to co-create and share knowledge to find applicable solutions for EU beekeepers.

Join our Network



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Our consortium



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