

# Co-creating Best Beekeeping Practices

Colony set-up and  
management/maintenance  
and American Foulbrood



# Introduction

This factsheet presents the final results of validating the **second set** of Best Beekeeping Practices, which were collaboratively developed by beekeepers, advisors, researchers, and experts as part of the B-THENET project in 2024.

The practices developed targeted **Colony set-up and management/maintenance** (Good Beekeeping Practices, GBPs) and **American Foulbrood** (Biosecurity Measures in Beekeeping, BMBs).

The initial set of Best Beekeeping Practices developed by the B-THENET project was published in 2023 and is available in an earlier factsheet.

The focus was on **Apiary set-up and management/maintenance** (Good Beekeeping Practices, GBPs) and **Varroosis** (Biosecurity Measures in Beekeeping, BMBs).

Read: [\*\*factsheet 02 | Validating Best Beekeeping Practices\*\*](#)

## BEE STRONGER TOGETHER!

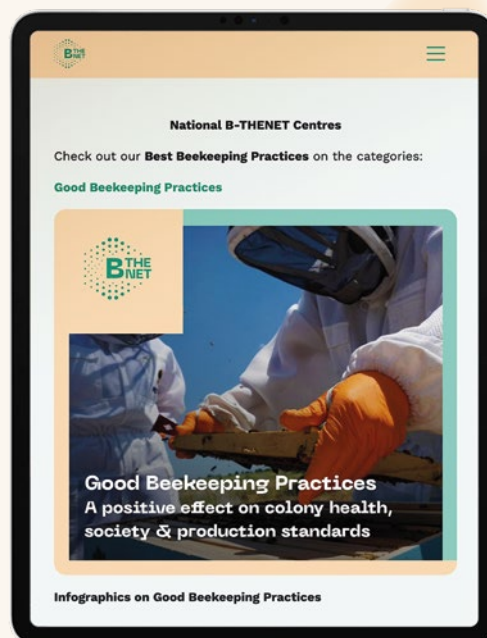
We've transformed these practices **Apiary Set-up and Maintenance & Maximising anti-varroa treatment effectiveness with organic compounds** into visual materials for easy access!

Need a quick video tutorial?  
[\*\*Check out our videos.\*\*](#)

Want a visual step-by-step guide?  
[\*\*Explore our collection of infographics!\*\*](#)

## Discover the full infographics:

- Setting up apiaries in an area accessible to vehicles
- Avoiding areas exposed too excessive humidity and wind
- Ensuring presence of trees (or other barriers) to create protection against weather stressors
- Maintaining appropriate distance from other apiaries
- Having enough space for storage rooms/working tools
- Keeping safe distances from houses/villages



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# 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 2024

28 Good Beekeeping Practices and Biosecurity Measures were developed under the themes of "**Colony set-up and management/maintenance**" (20 practices) and "**American foulbrood**" (8 practices) in 2024. The 13 National B-THENET Centres across 13 EU countries created these practices in their respective national languages, producing 364 customised best beekeeping practices that reflect local beekeeping realities.

These practices were shared online, enabling European beekeepers and advisors to participate and refine them from February to September 2024 actively.

## Who Was Involved

The National B-THENET Centres invited beekeepers and advisors from **Austria, Belgium, Croatia, Denmark, Germany, Greece, Hungary, Italy, Poland, Slovakia, Slovenia, Spain, and Sweden** to participate.

## When

The process of **exchange and validation** took place between February 2024 and September 2024.

## 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

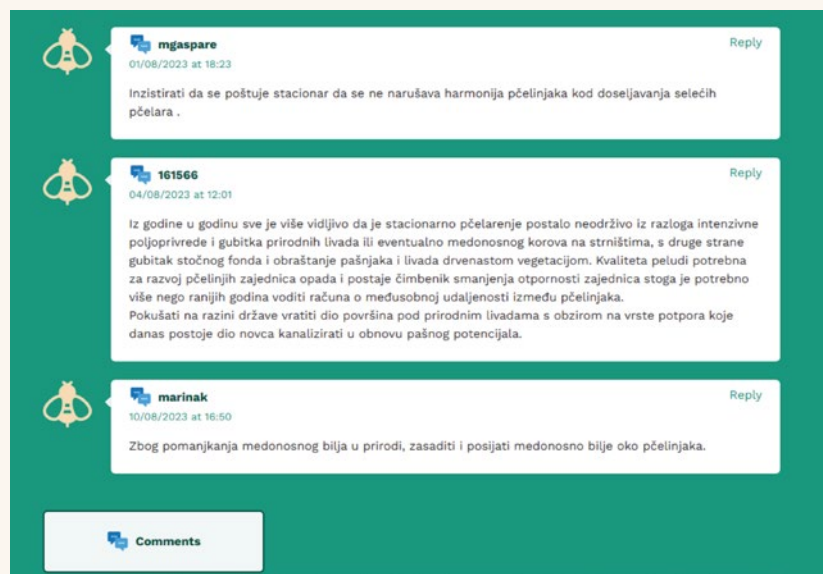
The validation of the 28 practices on the Exchange Platform took place both online and in person.

This process involved platform users, including beekeepers and advisors, evaluating the practices for their comprehensiveness and alignment with national beekeeping approaches.

Users engaged by adding comments, asking questions, and offering tips, as well as expressing their agreement or disagreement using a thumbs up/thumbs down feature.

**Rate this practice!** 👍 14 👎 0

From February to September 2024, the Exchange meetings organised by the 13 National B-THENET Centres enabled final validation through collaborative enhancements and voting by beekeepers and advisors using the platform feature.



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## Validation Criteria

At the end of September 2024, 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.

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Would you like a more detailed look at the methodology used by the National Centres to evaluate the best beekeeping practices?

Take a look at our [\*\*factsheet 01| Methodology for the Analysis of Practices.\*\*](#)



## Results

All 364 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, is available in 13 languages on the B-THENET Repository Platform. These practices will serve as certified training material for EU beekeepers and advisors.

Access the BBPs here:

- [Good Beekeeping Practices: Colony set-up and management/maintenance](#)
- [Biosecurity Measures: American Foulbrood](#)

Below is the list of best beekeeping practices validated in 2024 by the various participants of the B-THENET project:

### Category: GOOD BEEKEEPING PRACTICES

**Theme:** "Colony set-up and daily management/maintenance"

**Practice container:** "Wintering colonies" / "Swarming prevention" / "Prevention of disease transmission when transferring colonies, bees or frames" / "Colony inspection" / "Queen rearing" / "Comb management" / "Improvement of colony resilience and resistance to diseases" / "Routine queen management"

	AT	BE	DE	DK	EL	ES	HR	HU	IT	PL	SE	SI	SK
<b>01</b> Feeding and verify food storage	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>02</b> Expanding the colony to give the colony space	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>03</b> Only transfer disease-free bees and/or frames to other colonies	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>04</b> Evaluate the space needed by the growing colony	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>05</b> Choose the best colonies as larvae donors	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>06</b> Follow national rules for migratory beekeeping	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>07</b> Evaluate the food stores	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>08</b> Optimise inspection time/number of visits (e.g., to minimise stress; planning)	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>09</b> Internal colony evaluation	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>10</b> Replace beehive frames (how many and when)	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>11</b> Wax moth control and wax moth safe comb storage	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>12</b> Eliminate diseased colonies, so that they cannot reproduce	x	x	x	x	x	x	x	x	x	x	x	x	x



<b>13</b>	Inspect colonies during suitable weather conditions	x	x	x	x	x	x	x	x	x	x	x	x
<b>14</b>	Adding honey supers	x	x	x	x	x	x	x	x	x	x	x	x
<b>15</b>	Processing beeswax – from removing old combs to production of new wax foundations	x	x	x	x	x	x	x	x	x	x	x	x
<b>16</b>	Overwinter in the brood chamber	x	x	x	x	x	x	x	x	x	x	x	x
<b>17</b>	Carry out inspections for honey bee diseases before transferring colonies to a new location	x	x	x	x	x	x	x	x	x	x	x	x
<b>18</b>	Perform selection to have queens that are more resistant to disease and adapted to local climatic	x	x	x	x	x	x	x	x	x	x	x	x
<b>19</b>	Evaluation of mating success and start of oviposition of the new queen	x	x	x	x	x	x	x	x	x	x	x	x
<b>20</b>	Replace queens with high mite levels and or poor hygienic behavior	x	x	x	x	x	x	x	x	x	x	x	x

### Category: BIOSECURITY MEASURES

**Theme:** “American Foulbrood”

**Practice container:** “Prevention of AFB outbreaks” / “Disinfection of materials of AFB contaminated colonies” / “Detection of AFB” / “Management of hives that show clinical symptoms of AFB”

	AT	BE	DE	DK	EL	ES	HR	HU	IT	PL	SE	SI	SK
<b>01</b> Visual inspection of brood combs during work in the colony	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>02</b> Disinfection of apiary after AFB sanitation	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>03</b> Visual detection of AFB-typical signs	x	x	θ*	x	x	x	x	x	x	x	x	x	x
<b>04</b> Information about the AFB case to neighboring beekeepers/apiaries/migratory apiaries	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>05</b> Disinfection of flammable beekeeping equipment (e.g., wooden hives or nucs, boards, frames, combs, wax sterilisation etc.)	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>06</b> Destruction of AFB positive colonies or whole apiary	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>07</b> Form a “Disinfection unit” in the local community	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>08</b> Management of asymptomatic colonies when AFB cases have been detected in the apiary or in other hives of the same beekeeper	x	x	x	x	x	x	x	x	x	x	x	x	x

\* AFB is a notifiable disease in our country and any outbreak in an area is handled through the appropriate veterinary department. Upon locating an AFB outbreak, they create a locked outbreak zone and contact all beekeepers in that area. Migratory beekeepers whose colonies are located within the outbreak zone may not remove anything from their apiary until their colonies have tested negative and they have received approval from appropriate authorities to move them. Thus the practice to inform neighboring beekeepers about an AFB outbreak is not relevant in Germany, as all beekeepers are required to register their apiary stands and will be notified automatically in the event of an outbreak (literal quotation from the German National B-THENET Centre).

**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:**

X = Validated



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These practices reflect the national beekeeping methods of the participating countries, highlighting differences due to climate, environment, bee genetics, equipment, and diseases. This provides beekeepers and advisors with verified knowledge tailored to local conditions, created with their active input.

## Disclaimer

Practices that have not yet been validated will be refined during Exchange meetings to gain approval from national beekeeper and advisor communities. It's important to recognise that not all practices developed in 2024 have been readily accepted or universally validated as best beekeeping practices. For instance, in Germany, AFB is a notifiable disease and any outbreak in an area is handled through the veterinary department of reference. Thus the practice to inform neighboring beekeepers about an AFB outbreak is not relevant in Germany, as all beekeepers are notified automatically in the event of an outbreak.



# Conclusion

These validated Best Beekeeping Practices will be used as training materials, providing both national and international certification through B-THENET Centres.

Available in 13 languages, the Best Beekeeping Practices include step-by-step protocols, images, tags, links to innovations, and scientific references.

Future efforts will focus on harmonising these practices in English, detailing variations across the project countries.

The 364 practices were made available online in the Exchange Platform of the project in February 2024, in the format of user-friendly, step by-step protocols including images, tags (e.g., climatic area, tools and supplies, production line, etc.), links to useful innovations and scientific references.

The 13 B-THENET Centres actively discussed, refined, and co-developed the practices in their 13 national languages with the help of their local beekeepers and advisors, with the aim of reflecting their national beekeeping reality until June 2024. The final step of the cascade of development of BBPs was to validate each practice described on the Exchange platform at national level.

The validation of the 28 practices available in the Exchange Platform in 13 languages was carried out both online, through platform’ tools collecting feedback and votes (Deliverable 3.2), and in person, through exchange meetings organised by the 13 National B-THENET Centres.

Thus from June 2024 to September 2024, all the 364 have been refined and actively optimised, with their final version validated published on the Repository Platform. The third set of Best Beekeeping Practices will be validated by the end of 2025, focusing on the themes of “Record-keeping”, “Bee feeding and watering” and “European foulbrood”.

## Want to know more?

These are the themes being discussed within B-THENET from 2022 to 2026

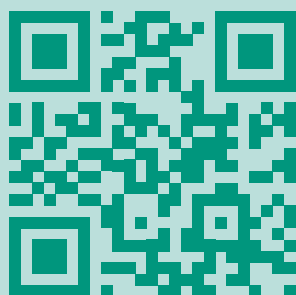
ROUND	YEAR	THEME	CATEGORY
01	2023	Apiary set-up and management/maintenance	Good Beekeeping Practices (GBPs)
		Varroosis	Biosecurity Measures in Beekeeping (BMBs)
02	2024	Colony set-up and management/maintenance	Good Beekeeping Practices (GBPs)
		American foulbrood	Biosecurity Measures in Beekeeping (BMBs)
03	2025	Record-keeping	Good Beekeeping Practices (GBPs)
		Bee feeding and watering	
		European foulbrood	Biosecurity Measures in Beekeeping (BMBs)
04	2026	Routine (preventive) hygiene practices	Good Beekeeping Practices (GBPs)
		Nosemosis + Small Hive Beetle + <i>Vespa velutina</i>	Biosecurity Measures in Beekeeping (BMBs)

# 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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