



Agricultural Institute of Slovenia

**WP1:  
VARROOSIS AND VIROSIS**

**BPRACTICES  
ERA-NET SusAn**

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# WP1: VARROOSIS AND VIROSIS

- Varroosis is one of the major honey bee disease responsible for colony losses worldwide.
- The **WP 1** of the project will identify all the GBPs to be applied at the apiary level to properly assess the infestation rate of the parasite *Varroa destructor* adopting the same method for all the European project participating countries (standardization of the powder sugar techniques);
- Reduce *Varroa* mite population avoiding the application of high environmental impact chemical treatments and increasing the efficacy of organic treatments using innovative non-residual bio-mechanical methods like the brood-removal, the temporary queen caging techniques;
- Prevent bee virus infections.
- Duration: **30 months** (1. 2. 2017 - 1. 8. 2019)



# WP1: VARROOSIS AND VIROSIS

- BUDGET

Organisation name	Person costs	Travel	Consumables	Subc.	Requested Funding	Total	Own contributions	Total costs
Agricultural Institute of Slovenia	<b>34</b>	<b>5</b>	<b>18</b>		<b>69</b>	<b>69</b>	<b>34</b>	<b>103</b>
Overhead	<b>6</b>	<b>2</b>	<b>4</b>					

# WP1: VARROOSIS AND VIROSIS

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## Objectives

- Identification of GBPs to submit for beekeepers' approval
- Identification of innovative GBPs for prevention of clinical cases and colony mortalities
- Sampling (apiary level) and laboratory analysis
- Identification of sustainable protocols for the disease control

# WP1: VARROOSIS AND VIROSIS

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## 1.1 List of general and specific GBPs

- A list of GBPs identified by partners as general prerequisite and specific to Varroa and virus prevention (bottom board provided with net, to apply at least two acaricide treatments/year, active principle rotation, etc.) will be undertaken.
- This list will be provided to WP5 for validation by the beekeepers at the international level.
- P1, P2, P3, P4, P5

## 1.2 Preclinic innovative GBPs Identification

- A list of innovative and standardized GBPs able to prevent Varroa and virus clinical cases at the apiary level, by assessing the infestation rate of the parasite (e.g. icing sugar or soapy solution wash methods to verify Varroa infestation level) will be carried out and harmonized among partners.
- The procedures, both at the apiary level (e.g. sampling method) and in the laboratory, will be identified by the partners.

1. Evaluation of the methods to verify Varroa infestation level. Review of available methods in the literature.
2. Identification of specific methods to be adopted at the apiary level and in the laboratory.
3. Harmonization among partners of the previously identified methods.
4. Definition of a list of innovative GBPs to apply at the apiary level to prevent Varroa and virus clinical cases.

•**P1, P3, P4, P5**

# WP1: VARROOSIS AND VIROSIS

## 1.3 Sustainable control protocols

1 – 30

- Sustainable protocols for Varroa and virus control, avoiding the application of high environmental impact chemical treatments will be considered against available scientific literature,
- The output from other on-going projects and studies (COLOSS) will be considered,
- Organic treatments, associated or not with biotechnical methods like the brood-removal and the temporary queen caging techniques, will be preferred. An updated final review will be published.

1. All partners will participate in the preparation of a review of affordable Varroa control methods with low impact active principles on bee products quality associated with biotechnical methods.

2. Publication of a final review.

- **P1, P3, P4**



# WP3: VARROOSIS AND VIROSIS

## MILESTONES

### M1.1 - List of GBPs sent to WP5

The definitive list of GBPs, general and specific for *Varroa destructor*

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### M1.2 - GBPs to prevent Varroa and viruses

The definitive list of innovative GBPs to prevent *Varroa* and viruses

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### M1.3 - Lab methods for Varroa and viruses

The definitive list of harmonized laboratory methods for *Varroa* and viruses

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### M1.4 - Varroa control methods

A review of the best low environmental impact methods for *Varroa* control

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# WP3: VARROOSIS AND VIROSIS

## DELIVERABLES

### D1.1 Online list of GBPs for Varroa

- The online document with the list of GBPs as general prerequisite and specific for *Varroa* and virus prevention identified by partners of WG1

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### D1.2 Intermediate report

The intermediate report to verify the progress of WG1 in the project

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### D1.3 Final report

The final report summarizing the WG1 activities

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