A pan-European surveillance program on colony losses

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ANSES
EU Reference Laboratory for honeybee health

Honeybees

Scientific & poetic interest

Hive products

Pollination →

Human food

Animal food

Biodiversity

Other pollinators

***Apis mellifera* is easy to breed and is ubiquitous**

European council

European parliament

European Commission

EU RL honeybee health

27 Member States

= 27 National ref labs

The EU reference laboratory for honeybee health

Regulation (EU) No. 87/2011 415/2013 as from 6 May 2013
(OJ L 29, 3.2.2011, p. 1–4)

General functions and duties : Article 32(2) of Regulation (EC) No 882/2004.

The EU Reference Laboratory coordinates,
in consultation with the Commission,
the methods employed in the Member States for **diagnosing** the relevant bee diseases.

Legal framework

Council Directive 92/65/EEC of 13 July 1992

Annexe A list notifiable diseases American foulbrood, in the context of the Directive

Commission Regulation (EC) No 1398/2003 amending Annex A to include *Aethina tumida* and *Tropilaelaps* mites

***A. tumida* and Tropilaelaps mite are subject to compulsory notification (Directive 92/65/EEC)**

Legal framework

Council Directive 92/65/EEC of 13 July 1992 (Annexe B)

European foulbrood, varroosis and acariosis as diseases for which national programs may be recognized under the Directive.

Main functions and duties

- Standardize, harmonize and coordinate methods employed by the Member States for diagnosing diseases

- Receive pathogen isolates for confirmatory diagnosis

- Train the Member States in laboratory diagnosis

- Collaborate with the competent laboratories of third countries

Surveillance of honeybee colony mortality

Since 2011 : A pan-European voluntary surveillance program on honeybee colony losses

cofinanced by the EU Commission
with the technical assistance of the EU reference laboratory for honeybee health

Objectives of the epidemiological study

- Objectives: to obtain comparable data from EU member states countries

Use a common indicator

Definition: Global colony loss rate
Period: Winter (autumn / spring) and summer season
Scale: Country

17 participating countries

The decision was voted in May 2012

3 385 apiaries expected to be visited
(145 – 396 per member state)

Agenda of the surveillance programme

- **Spring 2011 :** guide lines edited
- **Winter 2011-2012 :** application by the Member States
- **Spring 2012** : Harmonization of case definitions, development of the database

  Trainings on homogenization of colony observations
- **Autumn 2012 :** Colony visit 1
- **Spring 2013 :** Colony visit 2

  Estimation of 1st winter mortality rate

Objectives of the survey

Estimate the overwintering colony mortality rate

- Assess the *Varroa destructor* infestation (apiaries and colonies)
- Assess the ABPV and DWV infection (apiaries and colonies)
- Estimate the clinical prevalence of the principal honeybee diseases :
  - American foulbrood,
  - European foulbrood,
  - Varroosis,
  - Nosemosis,
  - CBPV, ABPV and DWV
- Ensure an early alert in case of the detection of *Aethina tumida* and *Tropilaelaps spp*.

Random selection

- To avoid bias
- To be as representative as possible
- In a complete list (of apiaries)

- harmonised active surveillance procedures

➔ accurate estimation of colony losses within the selected European countries

- RANDOM
- CONSISTENCY
- SIMILARITY

The first results

The first visit was performed between mid July 2012 (Sweden) and

mid December 2012 (Spain)

Participation to the first visit (2012)

Beekeepers

3 384 beekeepers expected to participate

3 122 beekeepers actually took part

Participation rate : 92.3 %

Colonies

47 129 colonies expected to be observed

43 988 colonies visited

Colony visit rate : 93.3 %

39 524 samples were collected

Web based database

Developped by the Anses - the Epidemiological Surveillance Unit

About 30 tables, 12 forms, 250 fields and 12 links

Early May 2013: 61 174 lines implemented

Benefits from participating to the first visit (2012)

The visit 1 generated benefits in contacts established	**Proportion(%)**
Between the beekeepers and the veterinary services	69.1
Between the beekeepers	50.0
Between the beekeepers and the agriculture ministry	41.2
Between the beekeepers and the neighbourhood (farmers for example)	10.3

Communication benefits

Thank you for your attention

EU Ref Lab team

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