



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 9th MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**TELE-conference 21 April 2020**

**(Agreed on 11<sup>th</sup> May 2020)**

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Expert<sup>1</sup>:  
Lidija Svecnjak
- European Commission and/or Member States representatives:  
Javier Ruiz Santaella Moreno (DG SANTE)
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

#### 1. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Marina Marini (DG SANTE).

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Agreement of the minutes of the 8th Working Group meeting held on 14 April 2020, Parma.

The minutes of the 8<sup>th</sup> Working Group meeting held on 14<sup>th</sup> April 2020 were agreed by written procedure on 22<sup>nd</sup> April 2020.

## 5. Hearing Expert (s)

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA invited Dr Lidija Svecnjak to submit an Annual Declaration of Interest. Her participation in the present meeting was limited to providing testimony, without the possibility to take on any role undertaken by members of the Working Group (i.e. not possible to draft or be involved in the discussion or the adoption of a scientific output), in accordance with the applicable legal framework .

## 6. Scientific topics for discussion ([EFSA-Q-2019-00159](#))

### 6.1. Progress from the previous meeting

Several remarks from the review of the technical report performed by Konrad Grob were discussed by the working group members. Agreement was reached for topics such as the average beeswax intake to be considered in a worst-case exposure scenario for humans or on the definition for palmitin in the context of this assessment.

### 6.2.Update from the WG members on analytical methods

Further suggestions to simplify the section on the methodology used to select adequate analytical methods for beeswax authenticity in apiculture were agreed by the working group pending the publication of relevant information in a scientific paper currently "in press" status as referred in the technical report.

### 6.3.Update from the WG members on exposure assessment and risk assessment

The description on the four exposure scenarios for the exposure assessment for honey bees have been simplified and tailored in line with their usefulness to reach conclusion on the risk assessment for honey bees given the lack of toxicological endpoints. In humans, the working group agreed to consider only publicly available data from previous EFSA assessments to calculate exposure to the contaminants present in the adulterants of concern.

### 6.4.Update from the WG members on conclusions and recommendations

When conducting the assessment presented in this report, the working group identified several areas where information and data are missing (e.g. analytical methods, hazard identification and

characterisation and exposure). For each of those areas, the working group agreed on a list of recommendations such as the need for standardised protocols to implement analytical tools, for determine contamination pathways of adulterants during the beeswax recycling processes, for more research to assess exposure on honey bees and the need of more consumption data on beeswax as food. General recommendations such as the need to develop Good Manufacturing Practices for beeswax producers were also agreed by the working group.

## **7. Any Other Business**

Not Applicable



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 8th MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**TELE-conference, 14 April 2020**

**(Agreed on 22 April 2020)**

#### Participants

- Working Group Members:  
Konrad Grob
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou, Marco Bignalia  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

#### 1. Welcome and apologies for absence

The Chair welcomed the participants.

#### 2. Adoption of agenda

The agenda was adopted without changes.

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

### **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting

### **4. Agreement of the minutes of the 7th Working Group meeting held on 18 -19 March 2020 Parma.**

The minutes of the 7<sup>th</sup> Working Group meeting held on 18<sup>th</sup> and 19<sup>th</sup> March 2020 were agreed by written procedure on 27<sup>th</sup> March 2020.

### **5. Scientific topics for discussion ([EFSA-Q-2019-00159](#))**

#### **5.1.Outcomes from the review**

Konrad Grob was invited to provide his feedback on the review that he made of the technical report entitled "Risk assessment of beeswax adulterated with paraffin and/or stearin/stearic acid when used in apiculture and as food (honeycomb)". K Grob provided a detailed critical review of the information displayed in the report, both on the form and content. All edits, amendments and comments were thoroughly discussed with EFSA. In particular, the different terminologies used in the document regarding paraffin (i.e. paraffin wax/hydrocarbon waxes) and stearin (stearin/stearic acid) as beeswax adulterants which need to be better aligned to the topic of the sections concerned. K Grob acknowledged the lack of data to make a proper risk assessment in honey bees and suggested to simplify some exposure scenarios for bee health (e.g. given the lack of data and methodology to estimate adulterants' migration from beeswax to larvae and food stored in cells). With regard to assessing risks in humans for mineral hydrocarbons, this is mainly based on previous EFSA assessments.

### **6. Any Other Business**

Not Applicable

### **7. Next meeting**

21 April 2020 (14.00-18.00, CET) by teleconference



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 7th MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**TELE-conference 18 -19 March 2020**

**(Agreed on 27<sup>th</sup> March 2020)**

*"This meeting, originally scheduled as a physical meeting, was converted into a **teleconference** to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection"*

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Expert<sup>1</sup>:  
Lidija Svecnjak
- European Commission and/or Member States representatives:  
Javier Ruiz Santaella Moreno (DG SANTE)
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou, Carina Wenger  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

#### 1. Welcome and apologies for absence

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

The Chair welcomed the participants.

Apologies were received from Marina Marini (DG SANTE).

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. For further details on the outcome of the screening of the Annual Declarations of Interest, as well as the Oral Declaration of Interest at the beginning of the meeting, and for conflicts of interest identified therein, please refer to the Annex.

## 4. Agreement of the minutes of the 6th Working Group meeting held on 21-22 January 2020, Parma.

The minutes of the 6<sup>th</sup> Working Group meeting held on 21<sup>st</sup> -22<sup>nd</sup> January 2020 were agreed by written procedure on 27<sup>th</sup> January 2020.

## 5. Hearing Expert (s)

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA invited Dr Lidija Svecnjak to submit an Annual Declaration of Interest. Her participation in the present meeting was limited to providing testimony, without the possibility to take on any role undertaken by members of the Working Group (i.e. not possible to draft or be involved in the discussion or the adoption of a scientific output), in accordance with the applicable legal framework .

## 6. Scientific topics for discussion ([EFSA-Q-2019-00159](#))

### 6.1. Progress from the previous meeting

The WG members made editorial and structural changes to the report (e.g. shorter title; have assessments on bees before humans; shorten section related to ToR; implementation of the problem formulation; merge gaps and conclusion-recommendation section; etc.).

### 6.2. Update from the WG members on methodologies

Available information on chemical contaminant occurrence data related to certain food categories identified as source of stearin is analysed in the technical report with the support of the DATA unit of EFSA.

### 6.3. Update from the WG members on analytical methods

The methodology used to select adequate analytical methods for beeswax authenticity in apiculture includes the creation of an inventory of most commonly used analytical methods supported by legislation and scientific literature. This is followed by the selection of the most reliable ones with the

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)

support of other methodologies like weighting analysis and validation techniques supported by statistical analysis. The WG agreed that for a reliable detection of the most common adulterants (paraffin, stearin and stearic acid) in beeswax, selected physico-chemical methods should be complemented with advanced analytical tools such as, GC-MS, GC-FID (MS) and/or FTIR-ATR spectroscopy, depending on the adulterant type expected.

#### **6.4.Update from the WG members on exposure assessment and risk assessment**

The WG proposes the elaboration of four exposure scenarios for the exposure assessment for honey bees considering previous evaluation made by FASFC (2018) but further elaborating by taking into consideration different larval stages and different adult tasks (e.g. beeswax producing bees and nurses) and types of exposure to adulterated beeswax (i.e. contact and oral). For humans, the WG proposes a worst-case maximum intake of beeswax reported in the literature. With these scenarios, risk assessments were established for bees and humans, but only a complete risk assessment could be made for humans given the lack of toxicological endpoint for honey bees.

#### **6.5.Update from the WG members on conclusions and recommendations**

The WG members discussed the conclusions regarding each of the three terms of reference as interpreted by EFSA. A proposed list of recommendations was also discussed with specific developments that could fill the gaps and support more evidence-based risk assessment of beeswax adulterants on honey bee and human health.

### **7. Any Other Business**

Not Applicable

### **8. Next meeting(s)**

14 April (9.00-18.00, CET) by teleconference

## **Annex**



## **Interests and actions resulting from the Oral Declaration of Interest done at the beginning of the meeting**

NO CONFLICT: With regard to this meeting, Prof. Claude Saegerman declared the following interest: activities on consultancy for the government on biosecurity measures in relation to the current coronavirus crisis. In accordance with EFSA's Policy on Independence<sup>4</sup> and the Decision of the Executive Director on Competing Interest Management<sup>5</sup>, and taking into account the specific matters discussed at the meeting in question, the interest above was not deemed to represent a Conflict of Interest for the expert concerned.

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<sup>4</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>5</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 6th MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**21-22 January 2020**

**(Agreed on 27 January 2020)**

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Expert<sup>1</sup>:  
Lidija Svecnjak
- European Commission and/or Member States representatives:  
Javier Ruiz Santaella Moreno (DG SANTE) has participated via teleconference
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

#### 1. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Marina Marini (DG SANTE).

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting

## 4. Agreement of the minutes of the 5th Working Group meeting held on 18 2019, TELE-conference.

The minutes of the 5<sup>th</sup> Working Group meeting held on 18<sup>th</sup> December 2019 were agreed by written procedure on 13<sup>th</sup> January 2019

## 5. Hearing Expert (s)

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA invited Dr Lidiya Svecnjak to submit an Annual Declaration of Interest. Her participation in the present meeting was limited to providing testimony, without the possibility to take on any role undertaken by members of the Working Group (i.e. not possible to draft or be involved in the discussion or the adoption of a scientific output), in accordance with the applicable legal framework .

## 6. Scientific topics for discussion ([EFSA-Q-2019-00159](#))

### 6.1. Progress from the previous meeting

The WG members indicated different interpretations and definitions for concepts covered under the remit of this mandate and to be included in the glossary such as beeswax vs. honeycomb or beeswax vs. wax or paraffin wax. The interpretation of the term of reference to include clarifications on the use of harmonised terminology for this risk assessment.

### 6.2.Update from the WG members on methodologies

The results from a machine learning technique applied by EFSA to screen the results from searches performed in the media for beeswax adulteration were presented. The searches were performed on MedISys in collaboration with the JRC. These outcomes will be incorporated in the report (methodologies and recommendation sections).

### 6.3. Update from the WG members on analytical methods

The WG members were updated on the advanced analysis performed to define purity criteria for beeswax in apiculture and the corresponding analytical methods. This includes (i) analysis of data from literature on analytical deviations for physico-chemical range values (ii) weight analysis on advantages vs. disadvantages of different analytical methods for detecting adulterants in beeswax and (iii) receiver operating characteristic (ROC) analysis based on a raw data on adulterated beeswax vs. non adulterated beeswax from available datasets.

### 6.4.Update from the WG members on exposure assessment and risk assessment

The members divided in three groups to advance in the work and provided updates on the way forward including a proposal to update the table of contents to better reflect streamlined approaches to perform human and bees' risk assessments.

## **7. Any Other Business**

Not Applicable

## **8. Next meeting(s)**

18 March (9.00-18.00, CET) and 19 March (9.00-13.00, CET) 2019, Parma



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 5th MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**TELE-conference, 18 December 2019**

**(Agreed on 13 January 2020)**

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Experts<sup>1</sup>:  
Lidija Svecnjak
- European Commission and/or Member States representatives:  
Javier Ruiz Santaella Moreno (DG SANTE) has participated via teleconference
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

#### 1. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Marina Marini (DG SANTE).

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting

## 4. Agreement of the minutes of the 4th Working Group meeting held on 18-19-20 November 2019 Parma.

The minutes of the 4th Working Group meeting held on 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> November 2019 were agreed by written procedure on 11 December 2019.

## 5. Hearing Expert (s)

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA invited Dr Lidija Svecnjak to submit an Annual Declaration of Interest. Her participation in the present meeting was limited to providing testimony, without the possibility to take on any role undertaken by members of the Working Group (i.e. not possible to draft or be involved in the discussion or the adoption of a scientific output), in accordance with the applicable legal framework .

## 6. Scientific topics for discussion ([EFSA-Q-2019-00159](#))

### 6.1. Progress from the previous meeting

The terms of reference were re-discussed within the working group and agreed with the EC. The terms of reference are (i) the establishment of purity criteria and technical specifications for beeswax when used in apiculture and as food in honey pots (ii) the evaluation of the possible safety concerns for humans due to consumption of honey contaminated with constituents of adulterated beeswax, or direct consumption of honeycombs and (iii) the evaluation of the possible health concerns for honey bees due to exposure to adulterated beeswax and to other bee products contaminated with constituents of adulterated beeswax. In this assessment, only contaminants coming from the adulteration process such as PAHs will be considered, excluding environmental contaminants such as heavy metals and pesticides. For the inclusion of PAHs, the working group asked support from the JRC to run an analysis on a limited number of beeswax samples which could provide such information.

### 6.2. Update from the WG members on analytical methods and hazard identification

The Working Group supported the proposal to elaborate a definition of purity criteria and related technical specifications for beeswax when used in apiculture based on a thorough analysis of the classical physicochemical methods and related quality criteria already available in the scientific literature. In addition, the Working group experts will consider the advantages of disadvantages of modern chromatographic and spectroscopic methods with the aim to provide the appropriate scientific advice for the identification of adulterated beeswax by these methods.

With the aim to harmonise the hazard identification and characterisation, the working group members agreed to identify common contaminants in paraffin and stearin for both honey bee and human health.

The limitations to identify the sources of stearin and paraffin when used as adulterants in beeswax will be also considered in the assessment.

### **6.3. Update from the WG members on exposure assessment**

The exposure assessment on the hazards identified in adulterated beeswax with paraffin and stearin is in progress taking into consideration data sources from previous assessments in EFSA, data from EFSA databases on human health, as well as from other scientific literature sources on honey bee health.

## **7. Any Other Business**

Not Applicable

## **8. Next meeting(s)**

21 January (14.00-18.00, CET) and 22 January (9.00-13.00, CET) 2019, Parma



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 4<sup>th</sup> MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**Held on 18-19-20 November 2019, Parma**

**(Agreed on 11 Dec 2019)**

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Experts<sup>1</sup>:  
Lidija Svecnjak
- European Commission and/or Member States representatives:  
Marina Marini (DG SANTE) has participated via teleconference
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

#### 1. Welcome and apologies for absence

The Chair welcomed the participants.

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.



Apologies were received from Javier Ruiz Santaella Moreno (DG SANTE).

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Agreement of the minutes of the 3<sup>rd</sup> Working Group meeting held on 18<sup>th</sup> -19<sup>th</sup> September 2019, Parma.

The minutes of the 3<sup>rd</sup> Working Group meeting held on 18<sup>th</sup> and 19<sup>th</sup> September 2019 were agreed by written procedure on 10<sup>th</sup> October 2019.

## 5. Hearing Expert

In accordance with EFSA's Policy on Independence<sup>4</sup> and the Decision of the Executive Director on Competing Interest Management<sup>5</sup>, EFSA invited Dr Lidija Svecnjak to submit an Annual Declaration of Interest. Her participation in the present meeting was limited to providing testimony, without the possibility to take on any role undertaken by members of the Working Group (i.e. not possible to draft or be involved in the discussion or the adoption of a scientific output), in accordance with the applicable legal framework<sup>6</sup>.

## 6. Scientific topic for discussion (EFSA-Q-2019-00159)

The working group members agreed on establishing the same purity criteria and technical specifications for beeswax used for apiculture and in honey pots as food since both products have the same origin and therefore are expected to have the same physicochemical properties. The working group also agreed to study the migration of adulterants (paraffin and stearin and their contaminants) to honey to assess both the safety for humans and the evaluation of honey bees health concerns (and not limited to bees as stated in the original terms of reference). Limited availability of data for the assessment remains a concern for the members of the working group. The possible analysis on 15 binary (i.e. presence and absence of paraffin) samples by the JRC may provide data on paraffin's contaminants, although limited, that are required for the assessment. In addition, the working group keeps gathering data from various sources of information, explores the development of worst-case scenarios for bee health assessment and is consulting the EFSA databases on chemicals for the assessment of human exposure to the adulterants and their contaminants. The first attempt from the working group to establish chemical specifications for beeswax in apiculture may comprise physicochemical parameters from the literature including a review on outliers and related reliability of

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)

<sup>4</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>5</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)

<sup>6</sup> Decision of the Executive Director on Competing Interest Management, Article 9:  
[http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)

particular physicochemical parameters for detecting adulteration of beeswax with paraffin and stearin. Two recently developed analytical tools for the chemical characterization of beeswax, FTIR-ATR spectroscopy and Gas chromatographic (GC / FID), were presented at the meeting as potential selected methods to detect adulterated beeswax. During the meeting the member of the WG discussed in small groups the exposure (bees and humans) and the technical specifications for beeswax and reported back to the whole group for further consideration on the report, the table of contents as well as on suggestions for possible recommendations.

## **7. Any Other Business**

Not Applicable

## **8. Next meeting(s)**

18 December (9.00-13.30, CET) 2019, TELE-conference

21 January (14.00-18.00, CET), 22 January (9.00-13.00, CET) 2019, Parma



SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 3<sup>rd</sup> MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**Held on 18 -19 SEPTEMBER 2019, Parma**

**(Agreed on 10 October 2019)**

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Javier Ruiz Santaella Moreno (DG SANTE) has participated via teleconference  
Marina Marini (DG SANTE) has participated via teleconference
- EFSA:  
BIOCONTAM Unit: Anna Christodoulidou  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

## 1. Welcome and apologies for absence

The Chair welcomed the participants.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Agreement of the minutes of the 2<sup>nd</sup> Working Group meeting held on 19<sup>th</sup> July 2019, TELE-conference.

The minutes of the 2<sup>nd</sup> Working Group<sup>4</sup> meeting held on 19 July 2019 were agreed by written procedure on 29 July 2019.

## 5. Scientific topic for discussion ([EFSA-Q-2019-00159](#))

The working group discussed the progression of the work assigned to each member from the previous meeting. An updated layout of the table of contents of the report was agreed to better reflect the relevance of the paraffin and stearin contaminants for the risk assessment.

The EC, with the support of EFSA, will explore the possibility to include data from further testing on the beeswax samples collected by the Member States that were found positive for adulteration with paraffin or stearin. The aim is to identify the presence of paraffin and /or stearin's contaminants on these samples while consulting the JRC on the technology available for this testing.

The working group agreed on excluding from the assessment new products like synthetic beeswax as well as paraffin contaminants such as Polycyclic aromatic hydrocarbons (PAHs) coming from the environment that may well be already present in natural beeswax. In addition, through consultations with stakeholders, the working group aims to obtain factual evidence on the most common types of paraffins and/or stearin sources and their contaminants identified in beeswax for apiculture. Concepts and terminologies will be defined in a glossary and by definitions throughout the technical report.

Several efforts will be made by the working group to extract relevant data, e.g. exposure toxicity, from previous EFSA's assessments or by running literature reviews focussed on paraffin and stearin contaminants. If data is deemed not to be available, the working group may consider defining a "worst case scenario" to better support the risk assessment.

## 6. Any Other Business

Not Applicable

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)

<sup>4</sup> <https://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/wg-beeswax.pdf>

## **7. Next meeting(s)**

18 November (14.00-18.00, CET), 19 November (9.00-18.00, CET) and 20 November (9.00-13.00, CET) 2019, Parma

18 December (9.00-13.30, CET) 2019, TELE-conference



Scientific Committee and Emerging Risk UNIT

## SCIENTIFIC COMMITTEE AND EMERGING RISK UNIT

### MINUTES OF THE 2<sup>nd</sup> MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**TELE-conference, 19 July 2019**

**(Agreed on 29 July 2019)**

#### Participants

- Working Group Members:  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission representatives:  
Javier Ruiz Santaella Moreno (DG SANTE)
- EFSA:  
BIOCONTAM Unit: Anna Christodoulou  
SCER Unit: Raquel Garcia Matas and Agnes Rortais
- Others:  
Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.



## 1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Marina Marini and Eric Marin (DG SANTE).

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Agreement of the minutes of the 1<sup>st</sup> Working Group meeting held on 17 May 2019, Parma.

The minutes of the 1<sup>st</sup> Working Group meeting held on 17 May 2019 were agreed by written procedure on 28 May 2019.<sup>2</sup>

## 4. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>3</sup> and the Decision of the Executive Director on Competing Interest Management<sup>4</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 5. Scientific topics for discussion (EFSA-Q-2019-00159)

The Beeswax working group met for its second time to discuss the information collected so far and to revise main concepts in the technical report as well as to revise the text where needed. The call for studies remains open to collect data and information from targeted institutions and organisations to support the development of scenarios for the exposure assessment, the identification of endpoints, the evaluation of the type of contaminants contained in paraffin and/or stearin, etc. Other sources like Eurostat and MedISys continue to be analysed. The development of a data model to gather data from all the screened sources will include relevant criteria and parameters to perform the risk assessment for both human and bee health. The revision of the technical report focussed on expanding the section 1.6 on methodologies to include analytical methods for paraffin, stearin and their contaminants. Revising the layout of the table of contents will include a clear differentiation on the assessment concerning human health and bee health to facilitate separate evaluation of the hazard identification and characterisation as well as estimates of exposure and risk characterisation for paraffin and stearin (and their contaminants). The working group considered that the term of reference (ToR) related to technical specifications and purity criteria for beeswax when used as a food in honey pots (i.e. honeycomb from apiculture) is already covered by the EFSA scientific opinion on beeswax as food additive (E-901) and should then be removed from the list of ToRs. This adjustment needs to be confirmed by the EC.

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<sup>2</sup> <https://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/wg-beeswax.pdf>

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>4</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



## 6. Any Other Business

Not applicable

## 7. Next meeting

18 September (14.00-18.00, CET) and 19 September (9.00-13.30, CET) 2019, Parma



# SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## MINUTES OF THE 1<sup>ST</sup> MEETING OF THE WORKING GROUP ON BEESWAX ADULTERATED WITH STEARIN AND PARAFFIN

**Held on 17 MAY 2019, Parma**

**(Agreed on 28 May 2019)**

### Participants

- Working Group Members:<sup>1</sup>  
Claude Saegerman  
Jean-Pierre Cravedi
- Hearing Experts<sup>2</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Javier Ruiz Santaella Moreno (DG SANTE) has participated via teleconference  
Marina Marini (DG SANTE) has participated via teleconference
- EFSA:  
SCER Unit: Raquel Garcia Matas, Agnes Rortais
- Others:  
Not Applicable

### 1. Welcome and apologies for absence

The Chair welcomed the participants.

<sup>1</sup> Indicate first full name and then surname (John Smith) all throughout the document.

<sup>2</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.



Apologies were received from Anna Christodoulidou (BIOCONTAM Unit, EFSA) and Eric Marin (DG SANTE)

## 2. Adoption of agenda

The agenda was adopted with changes (a first presentation was made by the EC, Javier Ruiz Santaella Moreno to provide all the background information related to the mandate).

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>3</sup> and the Decision of the Executive Director on Competing Interest Management<sup>4</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Scientific topics for discussion

The Beeswax working group met to kick off the work for the preparation of a technical report under the Art 31 Mandate from the European Commission (EC) on "Request for scientific and technical assistance on beeswax adulteration with stearin and paraffin" (M-2019-0061; EFSA-Q-2019-00159). From the discussion on the interpretation of the terms of reference there is a clear differentiation on the areas to be covered by the mandate with regards to the identified chemical hazards (stearin and paraffin), their characterisation and specifications as well as the impact on human health and bee health. Consequently, the related areas of expertise identified have guided the distribution of tasks, which were agreed among the WG members, to initiate the drafting of the technical report. To complete the information provided by the EC, i.e. to retrieve the latest information available from the relevant organisations in the area of e.g. bee health (i.e. EU Bee Partnership; US Bee Informed Partnership; EFSA networks such as EREN and StaDG-ER) on adulterated beeswax, EFSA defined a survey (call for studies) and checked with the WG members its requirements for further processing (selection criteria and data, timeline, language, etc.). In addition, a comprehensive overview on available information on the topic subject of this mandate is to be provided by a literature search as well as from exploring the potential uses of MedISys to monitor this issue. Timelines and next meetings were agreed by the WG Members and EFSA.

## 5. Any Other Business

Not applicable

## 6. Next meeting

Monday 1st July 2019 (9.00-13.30) by teleconference

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>4</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)