

1. Content of the 'Topic Description' document

1.1. Topic area

Diagnostics, field detection, surveillance.

1.2. Topic title

Understanding Little Cherry Viruses through improved diagnostics and insight in the occurrence and epidemiology.

1.3. Description of the problem the research should solve

Little Cherry Viruses have the potential to cause substantial damage to cherry production. Mainly sweet cherry, but also sour cherry cultivars are identified as sensitive host plants. Other *Prunus* species can be (latently) infected and function as a reservoir. Only non-European isolates are currently regulated in annex IIA1 of the 2000/29/EC directive.

According to the existing knowledge, two Little Cherry viruses, Little cherry virus 1 (LChVI) and Little cherry virus 2 (LChVII) are present in Europe. However, survey data are not always up to date. Moreover, the current lack of a standardised diagnostic tool leads to identification uncertainty and affects the accuracy of available distribution data. Collecting and characterising of isolates on a wider scale, especially their genetic variability might help to overcome these difficulties.

Furthermore, knowledge on epidemiology and factors affecting the spread of Little Cherry Viruses should be enhanced. Identification of potential vectors and reservoir hosts (e.g. other fruit and horticultural *Prunus* species) is essential to define effective control strategies. Moreover, the role of agricultural practices should be considered.

1.4. Description of the expected results

The research should lead to:

- Updated distribution maps
- Enhanced knowledge on the genetic diversity of the LChV isolates
- Standardized diagnostics, including an interlaboratory validation
- New insight in epidemiology and spread of LChV (vectors, host plants, etc.)
- Raised awareness of LChV problems and preventive measures
- A reflection on consequences for future EU legislation (quarantine / certification)

1.5. Beneficiaries of this research product

The research will benefit:

- National and EU policy makers
- NPPOs (diagnosticians and risk assessors/managers)
- EPPO (sampling/diagnostic protocols, status info for databases)
- Growers and industry

1.6. Research funders and research contribution/ distribution

Funding organisation	Research activity and researchers involved
1. Federal Public Service of Health, Food Chain Safety and Environment, Belgium Ria Nouwen	-Project coordination -Research activities to be confirmed. Contact person: Martine Maes



<p>ria.nouwen@health.belgium.be</p> <p>2. Austrian Agency for Health and Food Safety, Austria</p> <p>Sylvia Blümel Sylvia.bluemel@ages.at</p>	<p>martine.maes@ilvo.vlaanderen.be</p> <p>-LChV1 survey in Austria. -Improvement of detection method. -Identification of vectors and reservoir hosts.</p> <p>Contact person: Thomas Leichtfried thomas.leichtfried@ages.at</p>
<p>3. Walloon Agricultural Research Centre, Belgium (<i>to be confirmed</i>)</p> <p>Thibaut Olivier t.olivier@cra.wallonie.be</p>	<p>-Identification of vectors of LChV1 and LChV2 in Belgium. -Genetic diversity of LChV1 and LChV2 across Belgium. -Role of infected ornamental and fruit plant material in spread of LChV / Survey. -Inter-laboratory comparison of LChV detection.</p> <p>Contact person: Thibaut Olivier t.olivier@cra.wallonie.be</p>
<p>4. Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail, France</p> <p>Geraldine Anthoine geraldine.anthoine@anses.fr</p>	<p>-Participation in the inter-laboratory validation test.</p> <p>Contact person: Jean-Philippe Renvoisé jean-philippe.renvoise@anses.fr</p>
<p>5. Federal Ministry of Food and Agriculture, Germany</p> <p>Bettina Beerbaum Bettina.beerbaum@bmel.bund.de</p>	<p>-LChV1 and 2 survey in Germany. -Disease effects of both viruses. -NGS data on strains of both viruses.</p> <p>Contact person: Wilhelm Jelkmann Wilhelm.Jelkmann@julius-kuehn.de</p>
<p>6. Naktuinbouw, The Netherlands</p> <p>Michel Ebskamp m.ebskamp@naktuinbouw.nl</p>	<p>-Detection little cherry virus. -Little cherry virus collection.</p> <p>Contact person: Ellis Meekes E.Meekes@Naktuinbouw.nl</p>
<p>7. Agroscope, Switzerland</p> <p>Jean-Sébastien Reynard jean-sebastien.reynard@agroscope.admin.ch</p>	<p>-Evaluating agronomical impacts and spread of Little Cherry Viruses. -Disease aetiology. -Little cherry viruses collection. -Diagnostics and virus diversity.</p> <p>Contact person: Jean-Sébastien Reynard jean-sebastien.reynard@agroscope.admin.ch</p>
<p>8. Centre Technique au service de la filière fruits et légumes, France</p>	<p>-Improvement of detection methods.</p>



Yoann Brans brans@ctifl.fr	-Participation in the inter-laboratory validation test. Contact person: Julie Castaing castaing@ctifl.fr
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1.7. Research project partnership outside Euphresco

Euphresco funding ensures a certain level of transnational collaboration among Euphresco member countries. It is possible, if the funding consortium is interested, to contact funding organisations or research groups outside the geographical area covered by Euphresco members. The Euphresco coordinator could advertise the research topic in order to have an enlarged collaboration. If funders are interested in this possibility, please check the case below:

☐ The funding consortium of the topic mentioned in section 1.2 requires to advertise the topic outside the Euphresco network

Information to sharpen the profile of sought partners could be useful (but not mandatory): country/region (if there are preferences), skills/expertise required, etc.

1.8. Any other relevant information on content

A detailed survey for LChV was conducted in Belgium (2013-2015) in the research project RT 13/8 STATUSQ.

2. Euphresco management aspects of the project

2.1. Indication of the topic budget

Funding organisation ^a	Mechanism ^b	Total Budget ^c
1. FPS (BE)	VP	€ 75 000
2. AGES (AT)	NC	€ 27 500
3. CRA-W (BE)	NC	€ 2 000
4. ANSES (FR)	NC	€ 1 200
5. JKI (DE)	NC	€ 25 000
6. Naktuinbouw (NL)	NC	€ 9 000
7. Agroscope (CH)	NC	€ 3 000
8. CTFIL (FR)	NC	€ 11 400
total		€ 154 100

2.2. Expected duration of the project (only for non-competitive topics)

24 months.

2.3. Any other relevant information on topic organisation and management

^a First member is project coordinator. A minimum of two partners are necessary for each proposal. Add lines as needed.

^b Please indicate the preferred mechanism (e.g. real pot RP; virtual pot VP; non-competitive NC), or several mechanisms if there is flexibility.

^c Optional, as this amount can still change in the next phase. In-kind contribution should also be indicated in this column.