



# Scientific Programme

**EuroBlight Workshop  
Brasov, Romania 10-13 May 2015**



Alison Lees, Huub Schepers and Jens G. Hansen, EuroBlight Coordinators

Manuela Hermeziu, National Institute for Research and Development for Potato and Sugar Beet, local host

## **EuroBlight Workshop, Brasov, Romania 10-13 May 2015**

A European network of scientists and other specialists working on potato early and late blight meet every 2<sup>nd</sup> year. The network combines two previous networks originating from European Concerted Actions and has 150 members.

- EU.NET.ICP: “European network for development of an integrated control strategy of potato late blight” (1996-2000). Coordinated by Huub Schepers
- EUCABLIGHT: “A potato late blight network for Europe” (2003-2006). Coordinated by Alison Lees.

The 15<sup>th</sup> Workshop is hosted by the National Institute for Research and Development for Potato and Sugar Beet. The Workshop will be attended by 103 persons from 22 countries, including Russia, Chile, Argentina, China, Israel and USA. Representatives from all countries will present recent research results regarding integrated control, decision support systems, resistance of varieties, late blight in organic potatoes and population biology of the late blight pathogen in potatoes. Since early blight is an increasing problem in Europe reports on this disease are also included.

[www.EuroBlight.net](http://www.EuroBlight.net) .

### **EuroBlight Coordinators:**

Alison Lees, The James Hutton Institute (UK)  
Jens G. Hansen, Aarhus University (DK)  
Huub Schepers, Wageningen University (NL)



For further information please contact the network secretariat where also additional copies of this Proceedings can be ordered.

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## Sunday, 10 May, 2015

- 18.00-21.00 Registration and mounting of posters, Hotel Kronwell
- Registration in the hotel at the poster session area.
  - Mounting of posters.
  - Welcome reception “Get together” (19.00 – 21.00).

## Monday, 11 May, 2015

07.30-08.00 Registration and mounting of posters, Hotel Kronwell

08.10-08.30 Opening and organisational remarks

*Huub Schepers / EuroBlight*

*Sorin Claudiu Chiru / National Institute for Research and Development for Potato and Sugar Beet*

### **Session 1: Late blight and *P. infestans* - importance and characteristics - Status in Europe and beyond**

Chairman: William E. Fry

08.30-09.00 **Epidemics and control of late blight and early blight in 2013 and 2014 in Europe**

*Jens G. Hansen and Hans Hausladen.*

09.00-09.20 **Update on European *P. infestans* populations; new tools, new insights**

*David Cooke*

09.20-09.40 **The potato blight population in Northern Ireland**

*Louise Cooke*

09.40-10.00 **Link between genotype and phenotype and IMP2.0**

*Geert Kessel*

10.00-10.20 **Discussion**

10.20-11.00 **COFFEE BREAK AND POSTER SESSION**

*Chairman: Jens G. Hansen*

11.00-11.20 **Recent developments concerning the population biology and control strategies of *Phytophthora infestans* in USA**

*William E. Fry*

11.20-11.40 **Recent developments concerning the population biology and control strategies of *Phytophthora infestans* in Latin America**

*Ivette Acuña*

11.40-12.00 **Recent developments concerning the population biology and control strategies of *Phytophthora infestans* in Asia and Africa**

*Greg Forbes*

12.00-12.30 **Discussion**

12.30-13.30 **LUNCH**



## Session 2: Host/pathogen interactions and characteristics

Chairman: Geert Kessel

- 13.30-13.50 **The Solanum late blight R-moury**  
*Jack Vossen*
- 13.50-14.10 **Added value of stacked R genes for the Potato Late Blight control strategy**  
*Trudy van den Bosch*
- 14.10-14.30 **Assessment of genetic hotspots for Phytophthora resistance and their use as molecular markers in potato breeding**  
*Karen Sieber*
- 14.30-14.50 **Field performance of defence inducers against late blight depends on cultivars, not on resistance**  
*Didier Andrivon*
- 14.50-15.00 **Discussion**
- 15.00-15.30 **COFFEE BREAK**

## Session 3: Epidemiology and modelling

Chairman: Jonathan Yuen

- 15.30-15.50 **Adaptation patterns to temperature in the potato late blight pathogen *Phytophthora infestans***  
*Nicolas Mariette, A. Androdias, R. Mabon, R. Corbière, B. Marquer, J. Montarry and D. Andrivon*
- 15.50-16.10 **Evaluating the Smith Period criteria used for late blight management in the UK**  
*Siobhan Roisin Dancey*
- 16.10-16.25 **Discussion**
- 17.00-23.00 Guided city bus tour including a visit to Bran Castle and dinner in a traditional restaurant in the Poiana mountain area.



Bran Castle



Bran Castle Interior



Traditional dinner in a restaurant  
the Poiana mountain area



**Tuesday, 12 May, 2015**

### **Session 4: Control strategies**

Chairman: Ruairidh Bain

08.30-08.50 **Late Blight Prediction in Maine**

*Steve Johnson*

08.50-09.10 **DuPont TM Zorvec TM (oxathiapiprolin): the first member of a novel class of Oomycete fungicides**

*Jan-Dries Luijks*

09.10-09.30 **Impact of oils tank mixed with late blight fungicides on leaf blight control in three growing seasons**

*Ruairidh Bain*

09.30-09.50 **Update on the regulatory frame work in the EU for Crop Protection - Review of current status and implications for late blight control an ECPA view**

*Albert Schirring*

09.50-10.10 **Discussion**

10.10-10.40 **COFFEE BREAK AND POSTER SESSION**

### **Session 5: Alternaria**

Chairman: Bert Evenhuis

10.40-11.00 **Strategies for the control of early blight (*Alternaria solani*) in Denmark**

*Bent J. Nielsen*

11.00-11.20 **Study of the epidemiology of *A. alternata* on potato**

*Birgit Adolf*

11.20-11.40 **Evidence of strobilurine resistant isolates of *A. solani* and *A. alternata* in Germany**

*Hans Hausladen, Birgit Adolf and Jürgen Leiminger*

11.40-12.00 **Fungicide strategies against early blight and presence of F129L in Sweden**

*Erland Liljeroth*

12.00-12.20 **Efficacy of some fungicides in control of *Alternaria* species under laboratory and field conditions**

*J. Kapsa, J. Osowski and H. Gawinska-Urbanowicz*

12.20-12.30 **Discussion**

12.30-13.30 **LUNCH**

13.30-13.45 **Introduction to parallel subgroup meetings**

*Alison Lees, Huub Schepers and Jens G. Hansen*



## Session 6: Parallel subgroup meetings

### Subgroup: Control strategies

Chairman: Huub Schepers

- 13.45-13.55 **Development and experiences with Banjo Forte**  
*Olaf van Campen*
- 13.55-14.05 **Stabilized silver nanoparticles - new fungicides to control potato foliar diseases**  
*Sergey Elansky*
- 14.05-14.15 **Mancozeb, an essential tool for sustainable protection of potato against late blight and Alternaria**  
*Serge Duvauchelle*
- 14.15-14.25 **Late blight control strategies in Romania: grower practices and new experiences with Infinito and Consento**  
*Marius Dines*
- 14.25-15.00 **Discussion**
- 15.00-15.30 **COFFEE BREAK**
- 15.30-15.45 **Integrated deployment of host resistance and fungicides to sustain effective late blight management**  
*Alison Lees et al.*
- 15.45-16.00 **Can infected tubers contribute to potato late blight epidemics in Sweden?**  
*Lina Sjöholm*
- 16.0-16.15 **Inoculum sources and potato late blight forecasting in Norway**  
*Ragnhild Nærstad*
- 16.15-16.30 **Discussion**

### Subgroup: Pathogen characteristics and host resistance

Chairman: David Cooke

- 13.45-14.00 **Population genetics of *Phytophthora infestans* in the USA**  
*William E. Fry*
- 14.00-14.15 **Characterization of *Phytophthora infestans* isolates from Turkey**  
*Tahsin Ay, Hale Gunacti, & Canan Can*
- 14.15-14.30 **Diversity of *Phytophthora infestans* in Poland in selected regions**  
*Marta Brylinska*
- 14.30-14.45 **High genotypic diversity in Estonian populations of *Phytophthora infestans***  
*Eve Runno-Paurson and Riinu Kiiker*
- 14.45-15.00 **Discussion**
- 15.00-15.30 **COFFEE BREAK**
- 15.30-15.45 **The EU-monitoring project, a view behind the scenes**  
*Marieke Förch and Geert Kessel.*
- 15.45-16.00 **Online visualisation of SSR data using Poppr and Shiny**  
*Sanmohan Baby, Jens G. Hansen and David Cooke*
- 16.00-16.45 **Hands-on and discussion**





### **Subgroup: Alternaria**

Chairman: Hans Hausladen

- 13.45-14.00 **Cancelled**  
*Cancelled*
- 14.00-14.15 **Comparison of different methods for the infection with *A. solani* on potatoes in the field**  
*Hans Hausladen*
- 14.15-14.30 **Alternarias in vegetable crops: brassicas and tomatoes. Opening the bottlenecks for resistance breeding**  
*Marcin Nowicki, M. Nowakowska, M. Wrzesinska, P. Kaminski, E. U. Kozik*
- 14.30-14.45 **Alternaria pathogens of potato: variability and resistance to fungicides**  
*Lyudmila Kokaeva*
- 14.45-15.00 **Discussion**
- 15.00-15.30 **COFFEE BREAK**
- 15.30-15.45 **Monitoring early blight in Flanders**  
*Pieter Vanhaverbeke and Sofie Landschoot*
- 15.45-16.00 **Efforts towards a harmonized EB detection, results of the first Alternaria ring test**  
*Bert Evenhuis, Jan Spoelder and Jürgen Leiminger*
- 16.00-16.15 **Discussion**
- 20.00-23.00 Official workshop dinner at Kronwell Hotel

## **Wednesday, 13 May, 2015**

### **08.30-10.30 Parallel sub-group meetings continued**

#### **Subgroup: Control strategies**

Chairman: Huub Schepers

- 08.30-08.45 **Introduction**  
*Huub Schepers*
- 08.45-09.00 **Early blight, towards a decimal rating**  
*Bert Evenhuis et al.*
- 09.00-09.15 **Update of the EuroBlight table**  
*B. Evenhuis, R. Bain and Huub Schepers*
- 09.15-10.15 Discussion points:
1. Updating fungicide tables
  2. New initiatives - EuroBlight on control strategies

#### **Subgroup: Pathogen and host resistance**



Chairman: Geert Kessel

8.30-8.45

**Introduction**

*Jens G. Hansen*

8.45-10.15

Discussion points:

1. Collaboration between network: harmonisation, integration and sharing of data and results
2. 2015 monitoring in Europe and beyond
3. New initiatives - EuroBlight on Pathogen and Host resistance

**Subgroup: Alternaria**

Chairman: Hans Hausladen

8.30-8.45

**Introduction**

*Hans Hausladen*

8.45-10.15

Discussion points:

1. To be announced
2. New initiatives - EuroBlight on Alternaria

10.15-11.00

**COFFEE BREAK and POSTER SESSION**

11.00-12.00

**Session 7: Plenary session – outlook and new initiatives.  
Recommendations and visions from the subgroups**

Chairman: Didier Andrivon

11.00-11.15

**Report from the subgroup, Control strategies**

*Huib Schepers*

11.15-11.30

**Report from the subgroup, Pathogen and host resistance**

*Geert Kessel*

11.30-11.45

**Report from the subgroup, Alternaria**

*Hans Hausladen*

11.45-12.15

**Discussion**

12.15-12.30

**Closing of the workshop**

*Huib Schepers, Alison Lees and Jens G. Hansen*

12.30-13.15

**LUNCH**

**Visit at the Research Institute for Potato and Sugar Beet, Brasov and a potato grower in the region**

13.30

Shuttle buses leaves towards Bucharest

13:30-19.00

Field trip to a potato growing area

19:00 -

Evening free

Responsible	Poster title	Authors
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Kaire Loit	Cultivation technology influences the occurrence of potato early blight ( <i>Alternaria solani</i> ) in an organic farming system	
Natalia Statsyuk	Combination of a pre-planting treatment with pulse electric field and field treatments with Agat-25K biological preparation to control late blight of potato	
Eve Runno-Paurson	Cultivation technology influences the occurrence of potato early blight ( <i>Alternaria solani</i> ) in an organic farming system	
Jonathan Yuen	Displacement of <i>Phytophthora infestans</i> in East Africa	
Roselyne Corbiere	Does the Algerian <i>Phytophthora infestans</i> population show genotypic structuration on potato and tomato?	L. Beninal, S. Belkhiter, R. Mabon, N. Mariette, D. Andrivon, Z. Bouznad
Jan Spoelder	Early blight, ozone and digital diagnostics: an update of the Dutch situation	
Maria Kuznetsova	Effect of the in-furrow application of the Uniform fungicide on the late blight control of potato	
Louise Aldén	Practical Experiences of Decision Support Systems in the Swedish Potato Field Trials for <i>Phytophthora infestans</i> during 2011-2014.	Anna Gerdtsson
Merili Hansen	EVALUATION OF LATE BLIGHT RESISTANCE ON POTATO VARIETIES IMPORTED TO ESTONIA	
Michael Zellner	Evaluation of seed tuber treatment products to control late blight in organic potato production	
Romain Mabon	Genotypic and phenotypic characterization of <i>P. infestans</i> isolates collected in Brittany in 2013 - 2014	
Hans Hausladen	Influence of soil moisture to the occurrence of primary stem blight ( <i>Phytophthora infestans</i> )	
Radu Hermeziu	Late blight control and development in 2014 to NIRDPSB Brasov including technological elements	
Manuela Hermeziu	Late blight control and development in 2014 to NIRDPSB Brasov including technological elements	
Serge Duvauchelle	Mancozeb - Essential partner for past and future resistance management program	
Fadina Oksana	Marker profiles of late blight resistance genes in complex interspecific potato hybrids	O. A. FADINA, M P. BEKETOVA, T.V. BELYANTSEVA, M. A. KUZNETSOVA, E. V. ROGOZINA, E. E. KHAVKIN
Dani Shtienberg	Observations regarding the origin of <i>Phytophthora infestans</i> inoculum in potato fields and distribution of the disease in Israel	
Pieter	Potato late blight: managing the risk with up-to-date and field	



Vanhaverbeke	specific information.	
David Shaw	SSR analysis of <i>P. infestans</i> on tomato and potato in British gardens: evidence of high diversity but no evidence of host specificity""	
Bert Evenhuis	Systemic acquired resistance to control potato late blight?	
Vincent César	Evaluation of foliar resistance to <i>Phytophthora infestans</i> in potato varieties in Belgium (2013-2014)	
Simon White	Steps toward marker assisted selection for late blight resistance in Sarpo potatoes	KA Steele, DS Shaw and MD Hale
Ekatarina Sokolava	Two orthologues of late blight resistance gene R1 in wild <i>Solanum</i> species and derived potato varieties and hybrids	M. P. BEKETOVA, A. A. PANKIN, E. V. ROGOZINA, E. A. SOKOLOVA, E. E. KHAVKIN
Alexey Filippov	Use of retrospective weather data to calculate the optimal frequency of fungicide applications for the efficient late blight control in some potato-growing regions of Russia	
Zoltán Nagy	Variations in metalaxyl sensitivity of <i>Phytophthora infestans</i> isolates from Hungary	
Ekatarina Sokolava	Virulence and aggressiveness of new <i>Phytophthora infestans</i> isolates collected in North-Western Russia as related to host plant resistance.	
Marcin Nowicki	Development of LAMP-HRM for sensitive and specific detection of <i>Phytophthora infestans</i>	Marzena Nowakowska, Malgorzata Wrzesinska, Elzbieta U. Kozik
Catriona Walker	The socio-economic value of mancozeb to the UK potato industry for the control of potato blight with wider implications in Europe	



List of participants, EuroBlight workshop in Brasov, 10-13 May, 2015, Updated 21 April 2015

ID	Name		Institution / Company	Country
1	Zouaoui	Bouznad	ENSA El Harrach	Algeria
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6	Caroline	Strypstein	Syngenta	Belgium
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10	Adrianus	Testers	Belchim Crop Protection NV	Belgium
11	Pieter	Vanhaverbeke	PCA	Belgium
12	Lara	Ramaekers	Arysta Lifescience	Belgium
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14	Juan	Fajardo	Extension	Chile
15	Gregory	Forbes	International Potato Center	China
16	Bent Jørgen	Nielsen	Aarhus University	Denmark
17	Sanmohan	Baby	Aarhus University	Denmark
18	Jens Grønbech	Hansen	Aarhus University	Denmark
19	Merili	Hansen	Estonian University of Life Sciences	Estonia
20	Kaire	Loit	Estonian University of Life Sciences	Estonia
21	Riinu	Kiiker	Estonian University of Life Sciences	Estonia
22	Eve	Runno-Paurson	Estonian University of Life Sciences	Estonia
23	Roselyne	Corbiere	INRA	France
24	Didier	Andrivon	INRA	France
25	Romain	Mabon	INRA	France
26	Didier Nicolas	Mariette	INRA	France
27	Daniele	Ruccia	UPL	France
28	Serge	Duvauchelle	EURL Serge Duvauchelle	France
29	Sylvain	Tafforeau	BAYER CROPSCIENCE	France
30	Frederique	Aurousseau	Germicopa	France
31	Christoph Andreas	Braun	Bayer CropScience AG	Germany
32	Karen	Sieber	Bayerische Landesanstalt für Landwirtschaft	Germany
33	Hans	Hausladen	TUM	Germany

34	Michael	Zellner	Bavarian State Research Centre for Agriculture	Germany
35	Birgit	Adolf	Technical University Munic	Germany
36	Albert	Schirring	Bayer CropScience	Germany
37	Zoltán	Nagy	Plant Protection Institute	Hungary
38	Lior	Blank	ARO, the Volcani Center	Israel
39	Dani	Shtienberg	ARO, the Volcani Center	Israel
40	Antanas	Ronis	LZI	Lithuania
41	Ragnhild	Nærstad	Bioforsk	Norway
42	Arne	Hermansen	Bioforsk	Norway
43	Marcin	Chojecki	BASF Polska	Poland
44	Jozefa	Kapsa	IHAR	Poland
45	Marta	Brylinska	IHAR	Poland
46	Marcin	Nowicki	Research Institute of Horticulture	Poland
47	Sorin Claudian	Chiru	NIRDPSB Brasov	Romania
48	Radu	Hermeziu	NIRDPSB Brasov	Romania
49	Manuela	Hermeziu	NIRDPSB Brasov	Romania
50	Aurelian	Grusea	On behalf of Belchim Romania	Romania
51	Daniel	Tabacu	Belchim Crop Protection	Romania
52	Richard	Matei	Belchim Crop Protection	Romania
53	Mihai	Mucsi	On behalf of Belchim Romania	Romania
54	Sorin	Manoiu	On behalf of Belchim Romania	Romania
55	George	Botoman	On behalf of Belchim Romania	Romania
56	Romulus	Oprea	On behalf of Belchim Romania	Romania
57	Marius	Dines	Bayer SRL Romania	Romania
58	Natalia	Statsyuk	All-Russian Research Institute of Phytopathology	Russia
59	Alexey	Filippov	All-Russian Research Institute of Phytopathology	Russia
60	Maria	Kuznetsova	All-Russian Research Institute of Phytopathology	Russia
61	Sergey	Elansky	Moscow Lomonosov State University	Russia
62	Lyudmila	Kokaeva	Moscow Lomonosov State University	Russia
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65	Erland	Liljeroth	Swedish University of Agricultural Sciences	Sweden
66	Lina	Sjöholm	Swedish University of Agricultural Sciences	Sweden
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69	Anna	Gerdtsen	Swedish Board of Agriculture	Sweden
70	Louise	Aldén	Swedish Board of Agriculture	Sweden
71	Kees	Vogelaar	Agrovision BV	The Netherlands
72	Trudy	van den Bosch	Wageningen Univeristy	The Netherlands
73	Bert	Evenhuis	Wageningen UR	The Netherlands
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<b>91</b>	Howard	Hinds	Root Crop Consultancy Limited	United Kingdom
<b>92</b>	Ruairidh	Bain	SRUC	United Kingdom
<b>93</b>	Louise	Cooke	Queen's University, Belfast	United Kingdom
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<b>96</b>	David	Cooke	James Hutton Institute	United Kingdom
<b>97</b>	Alison	Lees	James Hutton Institute	United Kingdom
<b>98</b>	Siobhan Roisin	Dancey	James Hutton Institute	United Kingdom
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<b>100</b>	Simon	White	Sarvari Research Trust	United Kingdom
<b>101</b>	John	Edmonds	Gowan	United Kingdom
<b>102</b>	William	Fry	Cornell University	USA
<b>103</b>	Steve	Johnson	University of Maine	USA

**Notes:**





**We would like to thank our sponsors:**



Mancozeb Taskforce

