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# EuroBlight Workshop

## Scientific Programme

Limassol, Cyprus 12-15 May 2013



# EuroBlight

A potato late blight network for Europe

Alison K. Lees, Huub HTAM Schepers & Jens G. Hansen, EuroBlight Coordinators

Loukas Kanetis, Cyprus University of Technology, Local host

## EuroBlight Workshop, Limassol, Cyprus 12-15 May 2013

A European network of scientists and other specialists working on potato early and late blight meet every 18 months. 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 14<sup>th</sup> Workshop is hosted by the Cyprus University of Technology, Limassol, Cyprus. The Workshop will be attended by 94 persons from 16 European countries, Russia, Chile, Argentina, China and Israel. 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.

### Secretariat:

PPO-AGV Lelystad  
Att. H. Schepers  
PO Box 430  
NL-8200 AK Lelystad  
The Netherlands  
Telephone: + 31 320 291111  
Telefax: + 31 320 230479  
E-mail: [huub.schepers@wur.nl](mailto:huub.schepers@wur.nl)  
Internet: [www.ppo.wur.nl](http://www.ppo.wur.nl)





## **Sunday, 12 May**

18.00 – 22.00 Welcome reception and registration in **Hotel GrandResort**.

- Registration in the hotel at the poster session area.
- Posters to be mounted.
- Welcome reception “Get together” (19.00 – 21.00)

## **Monday, 13 May**

08.00–8.30 **Opening & organisational remarks**

Jens G. Hansen / EuroBlight

Dr. Nicolas Ioannou Professor of Plant Pathology / Cyprus University of Technology

### **Session 1: Late blight and *P. infestans* – status in Europe**

Chairman: Arne Hermansen

08.30–08.50 **Epidemics and control of late blight in 2012 in European countries**

*Hansen JG et al.*

08.50–09.10 **Population structure of *P. infestans* in Cyprus and a synopsis on its Mediterranean status**

*Kanetis L, Pittas L, Tsaltas D, Ioannou N*

09.10–09.30 **Coping with(out) copper in organic potato crops - the Co Free way**

*Andrivon D et al.*

09.30–09.50 **Collating European *P. infestans* population data, an update**

*Cooke DEL, Lassen P & Hansen JG*

09.50–10.10 **Discussion**

10.10–10.40 COFFEE BREAK -----

### **Session 2: Host/pathogen interactions and characteristics**

Chairman: David Cooke

10.40–11.00 **Phenotypic characterisation of Baltic populations of *P. infestans***

*Runno-Paurson E, Aav A, Nassar H, Ronis A, Skrabule I, Bimšteine G, Tähtjärv T, Hansen M*

11.00–11.20 **Tuber blight in relation to *P. infestans* genotypes 13\_A2 and 6\_A1**

*Bain RA, Convery C & Lees AK*

11.20–11.40 **Assessing and Monitoring the Impacts of Genetically Modified Plants on Agro-ecosystems (AMIGA)**

*Kessel G, Mullins E, Messéan A & Arpaia S*

11.40-12.00 **Renewal of the old differential set and the creation of a new GM differential set for potato late blight**  
*Zhu S, Bergervoet M, Nijenhuis M, Vossen JH, Kessel G, Vleeshouwers V, Visser RGF & Jacobsen E*

12.00-12.15 **Discussion**

12.15-13.00 **LUNCH** -----

13.00-13.30 **Poster session 1**

### Session 3: Epidemiology and decision support systems

Chairman: Alison Lees

13.30-13.50 **An IPM 2.0 approach to potato late blight control**  
*Kessel G et al.*

13.50-14.10 **Where do we go after Smith?**  
*Skelsey P & Cooke, DEL*

14.10-14.30 **Potato late blight forecasting and initial inoculum sources in Norway**  
*Nærstad R, Le VH & Hermansen A*

14.30-14.50 **Strategies to reduce primary *Phytophthora* infections in conventional and organic potato production**  
*Nechwatal J & Zellner M*

14.50-15.00 **Discussion**

15.00-15.30 **COFFEE BREAK** -----

15.30-15.50 **Potato Blight going mobile**  
*Hadders J*

15.50-16.10 **Development of a DSS for control of *Alternaria solani* and *A. alternata* in the UK**  
*Hinds H*

16.10-16.30 **Discussion**

17.30-23.00 Bus guided city tour with dinner in the Limassol region.



Kolossi Castle



Kourion Theatre & Mosaics



Traditional dinner in Omodos village

**Tuesday, 14 May**

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

Chairman: Bent J. Nielsen

- 08.30-08.50 **Effect of the interaction of variety resistance and fungicide doses in potato late blight control**  
*Acuña, I, Sandoval C, Cádiz F & Vargas M*
- 08.50-09.10 **Impact of fungicide input on leaf blight (*P. infestans*) development on different potato cultivars**  
*Bain RA, Ritchie F, Lees AK, Dyer C, Roberts A & Nevison I*
- 09.10-09.30 **Reduced efficacy of fluazinam against some Green 33 isolates of *Phytophthora infestans* in the Netherlands**  
*Schepers HTAM et al.*
- 09.30-09.45 **First results of an EU-wide genotype monitoring of *Phytophthora infestans* isolates using FTA cards**  
*Meier-Runge F, van den Bosch T & Kessel G*
- 09.45-10.00 **Discussion**
- 10.00-10.30 COFFEE BREAK -----
- 10.30-10.50 **Poster session 2**

### **Session 5: Alternaria**

Chairman: Juergen Leiminger

- 10.50-11.05 **The early blight situation in Sweden - species abundance and strobilurin sensitivity**  
*Edin E & Andersson B*
- 11.05-11.20 **Results from Alternaria Survey in the UK 2012**  
*Florendine BJ*
- 11.20-11.35 **Pathogenicity of Alternaria species on tomatoes and potatoes**  
*Stammler G & Tegge V*
- 11.35-11.50 **Comparing pathogenicity of *Alternaria solani* to *Alternaria alternata***  
*Spoelder J, Ellens RH & Turkensteen LJ*
- 11.50-12.15 **State of the art and important research questions - Report from the new EuroBlight Alternaria group**  
*Hausladen H, Edin E & Spoelder J*
- 12.15-12.30 **Discussion**
- 12.30-13.30 LUNCH -----
- 13.30-13.40 **Introduction to subgroup meetings**  
*Alison Lees, Huub Schepers & Jens G. Hansen*

## Session 6: Subgroup meetings

### Subgroup: Control strategies (Chairman: Huub Schepers)

- 13.45-13.55 **Efficacy of fluazinam for control of potato late blight (*Phytophthora infestans*) in Danish field trials**  
*Nielsen B et al.*
- 13.55-14.05 **Infinito and its activity on different isolates of A2 and A1 mating type of *Phytophthora infestans***  
*Andreas Braun C*
- 14.05-14.15 **Infinito and tuberblight control: modes of action**  
*Wanningen R*
- 14.15-14.25 **Late blight control strategies in the mediterranean area with Infinito and Consento**  
*Elsherif M*
- 14.25-15.00 **Discussion**
- 15.00-15.30 COFFEE BREAK-----
- 15.30-15.45 **Potato late blight control in Israel**  
*Blachinsky D*
- 15.45-16.00 **Chemical control strategy of potato late blight based on the DSS China-blight**  
*Hu T*
- 16.00-16.15 **Discussion**

### Subgroup: Pathogen and Host resistance (Chairman: David Cooke)

- 13.45-14.00 **Update on the Dutch *P.infestans* population 2012**  
*Förch M, Evenhuis B, van den Bosch T, Holdinga M & Kessel G*
- 14.00-14.15 **The potato blight population in Northern Ireland in 2012: ongoing changes and fungicide performance**  
*Cooke LR, Quinn L, Nugent P & Walker E*
- 14.15-14.30 **Changes in epidemiology and population structure of *P. infestans* in Finland**  
*Hannukkala A*
- 14.30-14.45 **Monitoring Danish population of potato late blight (*P. infestans*) 2011-2012 and occurrence of 13\_A2**  
*Nielsen B, Cooke D & Hansen JG*
- 14.45-15.00 **Discussion**
- 15.00-15.30 COFFEE BREAK-----
- 15.30-15.45 **Evaluating the potential of *Phytophthora infestans* to genetically adapt to the Rpi-blb1 transgene**  
*Nyongesa M, Phelan S, Wright D, Shaw D, Kildea S, Cooke L, Griffin D & Mullins E*
- 15.45-16.00 **Expression profiles of the late blight resistance gene Rpi-phu1**  
*Sliwka J, Switek M, Tomczyńska I, Stefańczyk E, Chmielarz M & Zimnoch-Guzowska M*
- 16.00-16.15 **Spectrum of resistance of potato cultivar Sarpo Mira against *Phytophthora infestans***  
*Tomczyńska I, Stefańczyk E, Chmielarz M, Karasiewicz B, Kamiński P, Jones JDG, Lees AK & Sliwka J*

16.15-16.30 **Sources for late blight resistance from Potato Collection in the Vavilov Institute of Plant Industry**  
*Rogozina EV, Beketova MP, Fadina OA, Khavkin EE, Sokolova EA, Kuznetsova MA, Jones RW & Deahl KL*

16.30-16.45 **Discussion**

**Subgroup: Alternaria** (Chairman: Hans Hausladen)

13.45-14.00 **Seasonal changes of Alternaria population in the North of Poland.**  
*Kapsa JS & Gawińska-Urbanowicz H,*

14.00-14.15 **Species of Alternaria causing early blight of potato and tomato in Russia.**  
*Kokaeva LYu & Elansky SN*

14.15-14.30 **Alternaria diseases of potatoes: epidemiology and management**  
*Sthienberg D*

14.30-14.45 **Integrated concept for controlling early blight of potatoes**  
*Backhaus A & Hausladen H*

14.45-15.00 **Discussion**

15.00-15.30 COFFEE BREAK-----

15.30-15.45 **Differentiation of Alternaria species and quantification of disease development using real-time PCR**  
*Leiminger J, Bahnweg G & Hausladen H*

15.45-16.00 **The F129L mutation of the cytochrome b gene in German *Alternaria solani* isolates and its impact on their sensitivity towards QoI fungicides**  
*Adolf B., Leiminger J & Hausladen H.*

16.00-16.30 **Discussion**

20.00-23.00 Official workshop dinner at Lanitis Carob Mills

*The Lanitis Carob Mill is a 3.000 sq. m. multi-purpose building situated west of the Medieval Castle of Limassol near the old Port.*

*In the past, the building was used as a warehouse and later as a carob mill where the collection of carob, the grinding and the separation of its various sub-products, which were exported to England, Egypt, Russia, etc, took place.*



## **Wednesday 15 May**

08.30–10.30 **Sub-group meetings continued**

**Subgroup: Control strategies** (Chairman: Huub Schepers)

08.30–08.45 **Introduction**

*Huub Schepers*

08.30–08.45 **Update of the EuroBlight table**

*Evenhuis B, Bain R, Hausladen H, Nielsen B, van den Berg W &, Schepers HTAM*

08.45–10.30

Discussion points:

1. Updating fungicide tables
2. New initiatives - EuroBlight on control strategies
3. Fungicide table as a Smartphone app?

**Subgroup: Pathogen & Host resistance** (Chairman: David Cooke)

Discussion points:

1. To be announced on the workshop
2. New initiatives - EuroBlight on Pathogen and Host resistance

**Subgroup: Alternaria** (Chairman: Hans Hausladen)

Discussion points:

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

10.30–11.15 **COFFEE BREAK and POSTER SESSION 3** -----

11.15-12.30 **Session 7: Plenary session – outlook and new initiatives.**

**Recommendations and visions from the subgroups**

Chairman: Didier Andrivon

11.15-11.35 **Report from the subgroup, Alternaria (Hans Hausladen)**

11.35-11.55 **Report from the subgroup, Fungicide (Huub Schepers)**

11.55-12.15 **Report from the subgroup, Pathogen and host resistance (David Cooke)**

12.15-12.45 **Discussion**

12.45-13.00 **Close of the workshop**

*Huub Schepers, Alison Lees, Jens G. Hansen & Loukas Kanetis*

13.00-13.45 **Lunch**



## **Field trip to potato growing area**

14:00–19:00 Field trip to potato growing area

19:00 - Evening free

<b>Responsible</b>	<b>POSTER Title</b>	<b>Authors</b>
Serge Duvauchelle	Control of Alternaria, What method to decide the sprays?	Duvauchelle S
Sergey Elansky	Oospore production by <i>Phytophthora infestans</i> in relation to pesticide concentration in vitro.	Elansky S.N., Mita E.D., Pobedinskaya M.A.
Alexey Filippov	The development and control of late blight ( <i>Phytophthora infestans</i> ) in Russia in 2012.	Filippov AV
Denis Gaucher	Mileos, the French Potato Late Blight DSS : steady progresses in the past decade.	Gaucher D, Chatot C, Dubois L
Merili Hansen	Evaluation of foliar resistance to <i>Phytophthora infestans</i> in potato varieties grown in Estonia.	Hansen M., Runno-Paurson E.
Manuela Hermeziu	Late blight integrated control in the specific conditions of Bârsa Land, Romania.	Hermeziu M
Emil Khavkin	Pyramiding R genes: genomic and genetic profiles of interspecific potato hybrids and their progenies.	Khavkin EE., Fadina OA, Sokolova EA, Beketova MP, Drobyazina PE, Rogozina EV, Kuznetsova MA, Yashina IM, Jones RW, Deahl KL
Steven Kildea	Sensitivity of Irish <i>Phytophthora infestans</i> to the CAA fungicide mandipropamid	Kildea S, Mehenni-Ciz J, Cooke LR and Griffin D
Maria Kuznetsova	New approaches for measuring potato susceptibility to <i>Phytophthora infestans</i> .	Kuznetsova MA, Spiglazova SYu, Rogozhin AN, Smetanina TI, Filippov AV.
Florenzia Lucca	Banjo Forte, a new product in the Late Blight market	Lucca, M. F. and Olaf van Campen
Helina Nassar	Distribution of mating types and resistance to metalaxyl in <i>Phytophthora infestans</i> in Estonia.	Nassar H, Aav A, Hansen M, Tähtjärv T, Runno-Paurson E.
Sinead Phelan	Assessing the impact of a cisgenic late blight resistant potato on biodiversity.	Phelan S, Mullins E.
Jarosław Plich	Efficacy of various resistance sources in protection of potato foliage and tubers against <i>P. Infestans</i> .	Jarosław Plich
Camila Sandoval	Alternaria spp and its epidemiology in the potato crop in Chile.	Sandoval, C., Acuña, I., Cádiz, F., Bravo, R., Vargas, M and S. Mancilla.

<b>Responsible</b>	<b>POSTER Title</b>	<b>Authors</b>
Karen Sieber	Development of late blight resistant potato pre-breeding material for organic farming.	Sieber, K., Forster, G. Schwarzfischer, A. and Kellermann, A.
Tatiana Smetanina	New approaches for measuring potato susceptibility to <i>Phytophthora infestans</i> .	Kuznetsova MA, Spiglazova SYu, Rogozhin AN, Smetanina TI, Filippov AV.
Ekaterina Sokolova	Structural homologues of CC-NBS-LRR genes for potato late blight resistance in wild Solanum species.	Sokolova EA, Fadina OA, Khavkin EE, Rogozina EV, Kuznetsova MA, Jones RW, Deahl KL.
Jan Spoelder	Comparing pathogenicity of <i>Alternaria solani</i> to <i>Alternaria alternata</i> .	Spoelder J, Ellens RH, Turkensteen LJ.
Natalia Statsyuk	Characterization of Russian <i>Phytophthora infestans</i> populations: DNA fingerprinting and SSR analysis.	Statsyuk NV, Semina YuV, Perez FGM, Larsen M, Kozlovskaya IN, Morozova EV, Deahl KL, Grunwald NJ.
James Stroud	Does <i>Phytophthora infestans</i> exhibit host specialisation on Tomato in Great Britain?	Stroud J, Shaw DS, Hale M, Steele K.
Vanessa Tegge	<i>Alternaria</i> spp. in potato - latest research results from BASF.	Tegge V et al.
Michael Zellner	Evaluation of leaf treatment products to control late blight in organic potato production.	Nechwatal J and Zellner M
Oksana Fadina	Comparison of two SCAR markers for the RB/Rpi-blb1 gene of potato late blight resistance	Fadina OA, Belyantseva TV, Khavkin EE, Rogozina EV, Kuznetsova MA, Jones RW, Deahl KL
Bert Evenhuis	F129L mutation found in the Dutch <i>Alternaria solani</i> population	Bert Evenhuis, Hans Hausladen, Petra van Bekkum, Birgit Adolf, Huub Schepers, Marieke Förch & Jürgen Leiminger
L R Cooke	Zoxamide sensitivity in European <i>Phytophthora infestans</i> isolates, 2003-2012	L R Cooke, Agri-Food & Biosciences Institute, Belfast, J Edmonds, Gowan
L R Cooke	Performance of fungicide programmes based on 'Revus', 'Shirlan' and 'Dithane NT' in controlling potato blight in a Northern Ireland field trial, 2012	L R Cooke and P Nugent
Roselyne Corbière	Assessing the resistance of potato cultivar Sarpo Mira to Algerian isolates of <i>Phytophthora infestans</i> .	Belkhiter S., Bouznad Z., Kedad A., Andrivon D., Corbière R.
M.F. Lucca	Advances in control of potato Late Blight in Argentina	Lucca, M. F. and Huarte, M. A



## Participants list for the workshop in Limassol, Cyprus, 12-15 May, 2013

<b>ID</b>	<b>First name</b>	<b>Last name</b>	<b>Institution/Company</b>	<b>Country</b>
1	Florencia	Lucca	Instituto Nacional de Tecnología Agropecuaria	Argentina
2	Lara	Ramaekers	Agriphar	Belgium
3	Johan	Desnouck	Belchim Crop Protection	Belgium
4	Bert	Callebaut	Certis	Belgium
5	Pieter	Vanhaverbeke	Interprovinciaal Proefcentrum voor de Aardappelteelt	Belgium
6	Mia	Laget	Taminco BVBA	Belgium
7	Versmissen	Clement	ISK	Belgium
8	Ivette	Acuña	Instituto de Investigaciones Agropecuarias (INIA)	Chile
9	Camila	Sandoval	Instituto de Investigaciones Agropecuarias (INIA)	Chile
10	Julio	Kalazich	Instituto de Investigaciones Agropecuarias (INIA)	Chile
11	Tongle	Hu	College of Plant Protection, Agricultural University of Hebei	China
12	David	James	Bayer CropScience	Cyprus
13	Loukas	Kanetis	Cyprus University of Technology	Cyprus
14	Nicolas	Ioannou	Cyprus University of Technology	Cyprus
15	Georgios	Neophytou	Ministry of Agriculture, Natural Resources and Environment	Cyprus
16	Stelios	Samouel	Cyprus Extension service	Cyprus
17	Andrew	Bailey	Cheminova A/S	Denmark
18	Bent J.	Nielsen	Aarhus University, Department of Agroecology	Denmark
19	Jens G.	Hansen	Aarhus University, Department of Agroecology	Denmark
20	Merili	Hansen	Estonian University of Life Sciences	Estonia
21	Helina	Nassar	Estonian University of Life Sciences	Estonia
22	Eve	Runno-Paurson	Estonian University of Life Sciences	Estonia
23	Asko	Hannukkala	AgriFood Research Finland	Finland
24	Denis	Gaucher	ARVALIS - Institut du végétal	France
25	Serge	Duvachelle	EURL SERGE DUVAUCHELLE	France
26	Catherine	Chatot	Germincopa SAS	France
27	Roselyne	Corbière	INRA - Institut National de la Recherche Agronomique	France
28	Nicolas	Mariette	INRA - UMR 1349 IGEPP	France
29	Didier	Andrivon	INRA Centre de Rennes	France
30	Vanessa	Tegge	BASF SE	Germany

<b>ID</b>	<b>First name</b>	<b>Last name</b>	<b>Institution/Company</b>	<b>Country</b>
31	Gerd	Stammler	BASF SE	Germany
32	Jan	Nechwatal	Bavarian State Research Center for Agriculture	Germany
33	Michael	Zellner	Bavarian State Research Centre for Agriculture	Germany
34	Christoph A.	Braun	Bayer CropScience AG	Germany
35	Mohamed	Elshefif	Bayer CropScience AG	Germany
36	Karen	Sieber	Bayerische Landesanstalt für Landwirtschaft	Germany
37	Jürgen	Leiminger	Lehrstuhl für Phytopathologie, TU München	Germany
38	Frank	Meier-Runge	Syngenta Agro GmbH	Germany
39	Birgit	Adolf	TUM, Lehrstuhl für Phytopathologie	Germany
40	Andrea	Backhaus	TUM, Lehrstuhl für Phytopathologie	Germany
41	Hans	Hausladen	TUM, Lehrstuhl für Phytopathologie	Germany
42	Amarnath	Chandrani	Indofil Industries Limited	India
43	Steven	Kildea	Teagasc	Ireland
44	Ewen	Mullins	Teagasc	Ireland
45	Sinead	Phelan	Teagasc	Ireland
46	Daphna	Blachinsky	Makhteshim Agan	Israel
47	Dani	Shteinberg	ARO, the Volcani Center	Israel
48	Kees	Vogelaar	Agrovision bv	Netherlands
49	Jan	Hadders	Dacom BV	Netherlands
50	Bert	Evenhuis	Applied plant research	Netherlands
51	Huub	Schepers	Applied Plant Research	Netherlands
52	Eric	Kiers	BASF Nederland B.V.	Netherlands
53	Albert	Schirring	Bayer CropScience AG	Netherlands
54	Roel	Wanningen	Bayer CropScience B.V.	Netherlands
55	Jos	Testers	Belchim Crop Protection	Netherlands
56	Olaf	van Campen	Makhteshim Agan	Netherlands
57	Jan-Dries	Luijks	DuPont de Nemours (nederland) B.V.	Netherlands
58	Jan	Spoelder	HLB BV	Netherlands
59	Weijnand	Saathof	HLB BV	Netherlands
60	Doretta	Boomsma	HZPC Holland B.V.	Netherlands
61	Tonnie	Engels	Linge Agroconsultancy	Netherlands
62	Albert	van den Ende	Nufarm	Netherlands
63	Geert	Kessel	Plant Research International	Netherlands
64	Arne	Hermansen	Norwegian Institute for Agricultural and Environmental Research	Norway

<b>ID</b>	<b>First name</b>	<b>Last name</b>	<b>Institution/Company</b>	<b>Country</b>
65	Ragnhild	Nærstad	Norwegian Institute for Agricultural and Environmental Research	Norway
66	Jaroslav	Plich	Plant Breeding and Acclimatization Institute	Poland
67	Jozefa	Kapsa	Plant Breeding and Acclimatization Institute	Poland
68	Iga	Tomczyńska	Plant Breeding and Acclimatization Institute	Poland
69	Jadwiga	Sliwka	Plant Breeding and Acclimatization Institute	Poland
70	Manuela	Hermeziu	Nat. Inst. of Research and Development for Potato and Sugar Beet	Romania
71	Alexey	Filippov	All-Russian Research Institute of Phytopathology	Russian Federation
72	Maria	Kuznetsova	All-Russian Research Institute of Phytopathology	Russian Federation
73	Tatiana	Smetanina	All-Russian Research Institute of Phytopathology	Russian Federation
74	Natalia	Statsyuk	All-Russian Research Institute of Phytopathology	Russian Federation
75	Ekaterina	Sokolova	Institute of Agricultural Biotechnology	Russian Federation
76	Emil	Khavkin	Institute of Agricultural Biotechnology	Russian Federation
77	Oksana	Fadina	Institute of Agricultural Biotechnology	Russian Federation
78	Lyudmila	Kokaeva	Moscow M.V.Lomonosov State University	Russian Federation
79	Sergey	Elansky	Moscow M.V.Lomonosov State University	Russian Federation
80	Elena	Rogozina	Vavilov Institute of Plant Industry	Russian Federation
81	Eva	Edin	Swedish University of Agricultural Sciences	Sweden
82	Louise	AldenDemoling	Swedish Board of Agriculture	Sweden
83	Anna	Gerdtsson	Swedish Board of Agriculture	Sweden
84	Duncan	McKenzie	Syngenta Crop Protection AG	Switzerland
85	Faye	Ritchie	ADAS UK Ltd	United Kingdom
86	Louise	Cooke	Agri-Food and Biosciences Institute	United Kingdom
87	James	Stroud	Bangor University	United Kingdom
88	John	Edmonds	Gowan Company	United Kingdom
89	Barrie	Florendine	Potatotech Ltd	United Kingdom
90	Howard	Hinds	Root Crop Consultancy Limited	United Kingdom
91	Ruairidh	Bain	Scotland's Rural College	United Kingdom
92	David	Cooke	The James Hutton Institute	United Kingdom
93	Alison	Lees	The James Hutton Institute	United Kingdom
94	Peter	Skelsey	The James Hutton Institute	United Kingdom

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