



Latest news from EuroBlight

Asko O. Hannukkala
Potato Academy
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What is EuroBlight?

An 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



<http://euroblight.net>

What is EuroBlight?

EuroBlight is organised on 5 subgroups

- Host resistance to *P. infestans*
 - Pathogen characteristics, population biology and genetics
 - Epidemiology, integrated control and decision support systems
 - Fungicides
 - Epidemiology and control of *Alternaria* spp.
- Organise harmonised protocols and co-ordinate and integrate European research on each topic



<http://euroblight.net>

EuroBlight meeting in Cyprus – 12-15 May 2013



EuroBlight meeting in Cyprus – 12-15 May 2013



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WORKSHOP PROCEEDINGS 1996-2013

The proceedings from previous workshops are available in PDF format. You need Adobe Acrobat to read them. Acrobat is freely available from the [Adobe site](#). Left click with the mouse to read it. Right click for download

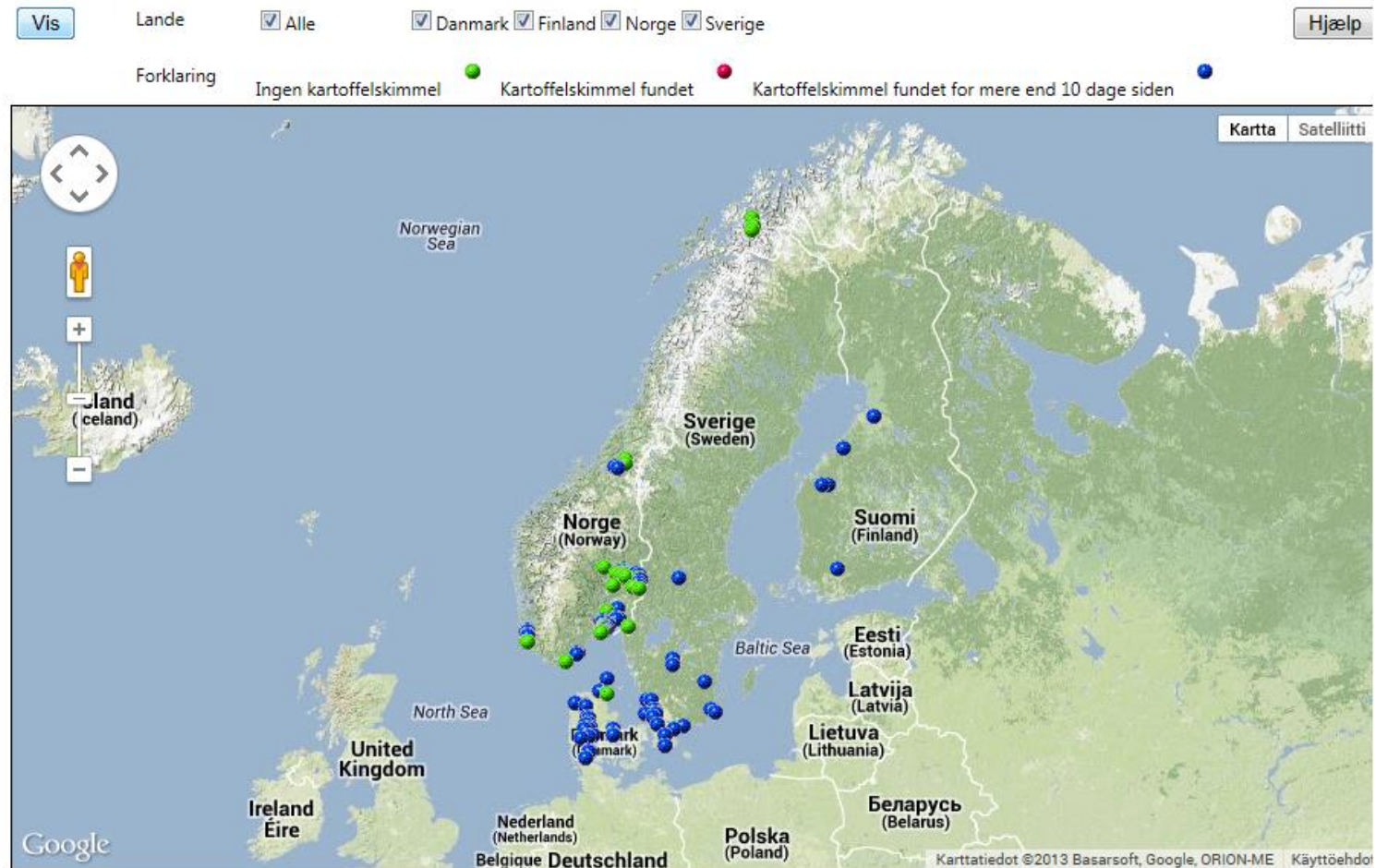
Venue City	Year	Proceedings	Presentations
Lelystad	1996	Proceedings	-
Carlow	1997	Proceedings	-
Uppsala	1998	Proceedings	-
Oostende	1999	Proceedings	-
Munich	2000	Proceedings	-
Edinburgh	2001	Proceedings	-
Poznan	2002	Proceedings	-
Jersey	2004	Proceedings	-
Tallinn	2005	Proceedings	-
Bologna	2007	Proceedings	Presentations
Hamar	2008	Proceedings	Presentations
Arras	2010	Proceedings	Presentations
St Petersburg	2011	Proceedings	Presentations
Limassol	2013	-	Presentations

<http://euroblight.net/workshop-proceedings-1996-2013/>

Monitoring *Phytophthora infestans* outbreaks in the Nordic Countries 2013

NORDIC LATE BLIGHT SURVEY MAPPER

This is a dynamic, interactive tool for potato late blight surveillance in the Nordic countries. Data are uploaded via a web-based data entry form on the Potato Late Blight Toolbox. The user can select to see one or more countries, - click on the dots to see background data and see all background data in the table below the map.



Monitoring *Phytophthora infestans* populations in Europe

Why?

The very fast and sudden changes in populations of *Phytophthora infestans* in Europe

- Population structures and characterisation of invasive genotypes
 - To understand the reasons for these changes
 - To predict and manage them

The clonal lineage Blue 13 after 2004

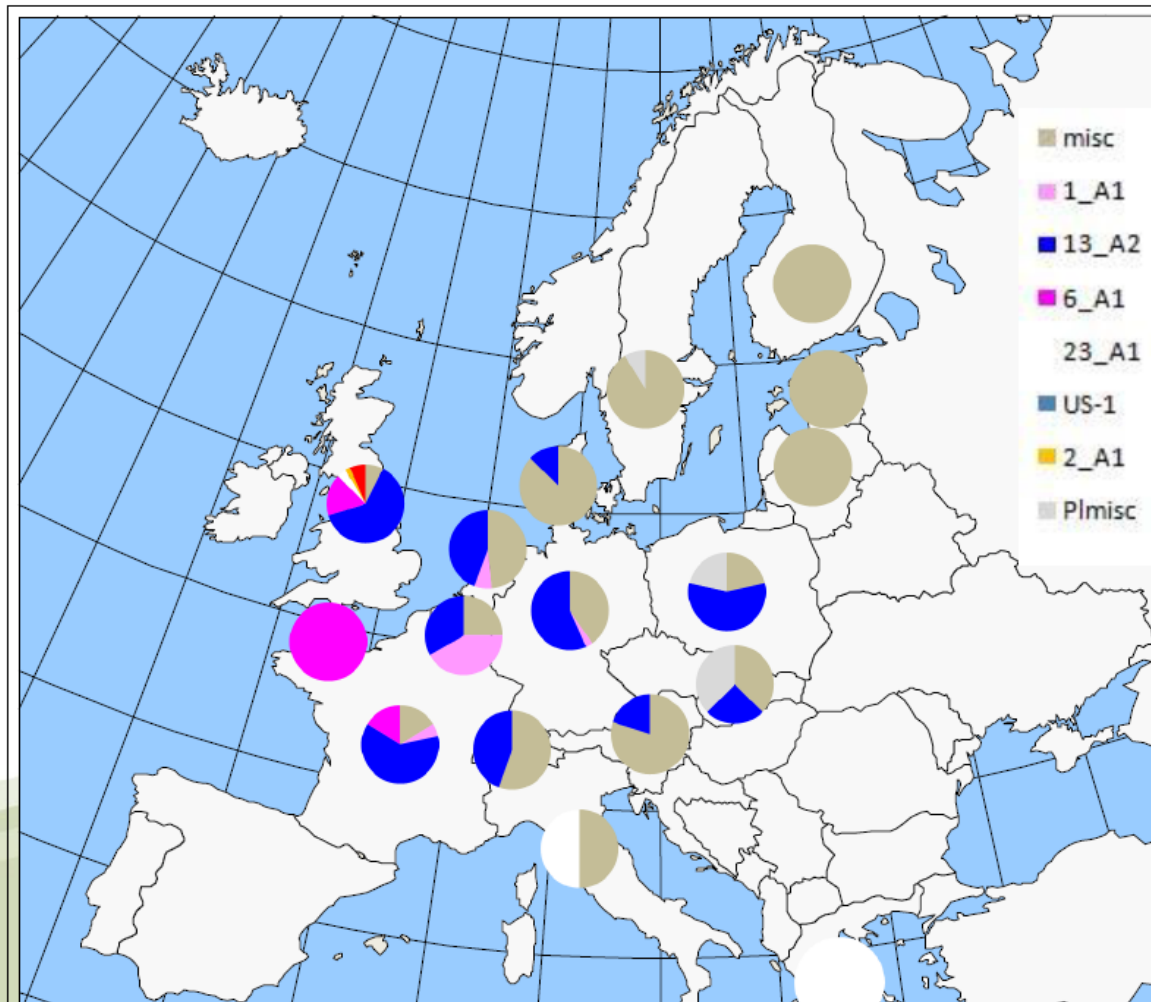
- Increased aggressiveness
- Resistant to metalaxyl

The clonal lineage Green 33 from 2009 onwards.

- Decreased sensitivity to fluazinam

Monitoring *Phytophthora infestans* in Europe

Sample of EU *P. infestans* genotypes (2008-10) (*n*=350)



- 13_A2 still present in many areas (less due to reduced Metalaxyl use?)
- A high proportion of novel 'misc' types particularly in NE
- New genotype in PL, SK & SE
- 23_A1 on tomato in Italy & GK
- Thanks to Bayer and Syngenta, Howard Hinds, Vangelis Vellios

David Cooke's
presentation 2013

The Syngenta logo is displayed in white lowercase letters on a dark green rectangular background. A large, light gray leaf graphic is positioned behind the logo, extending from the top right towards the bottom center of the slide.

syngenta

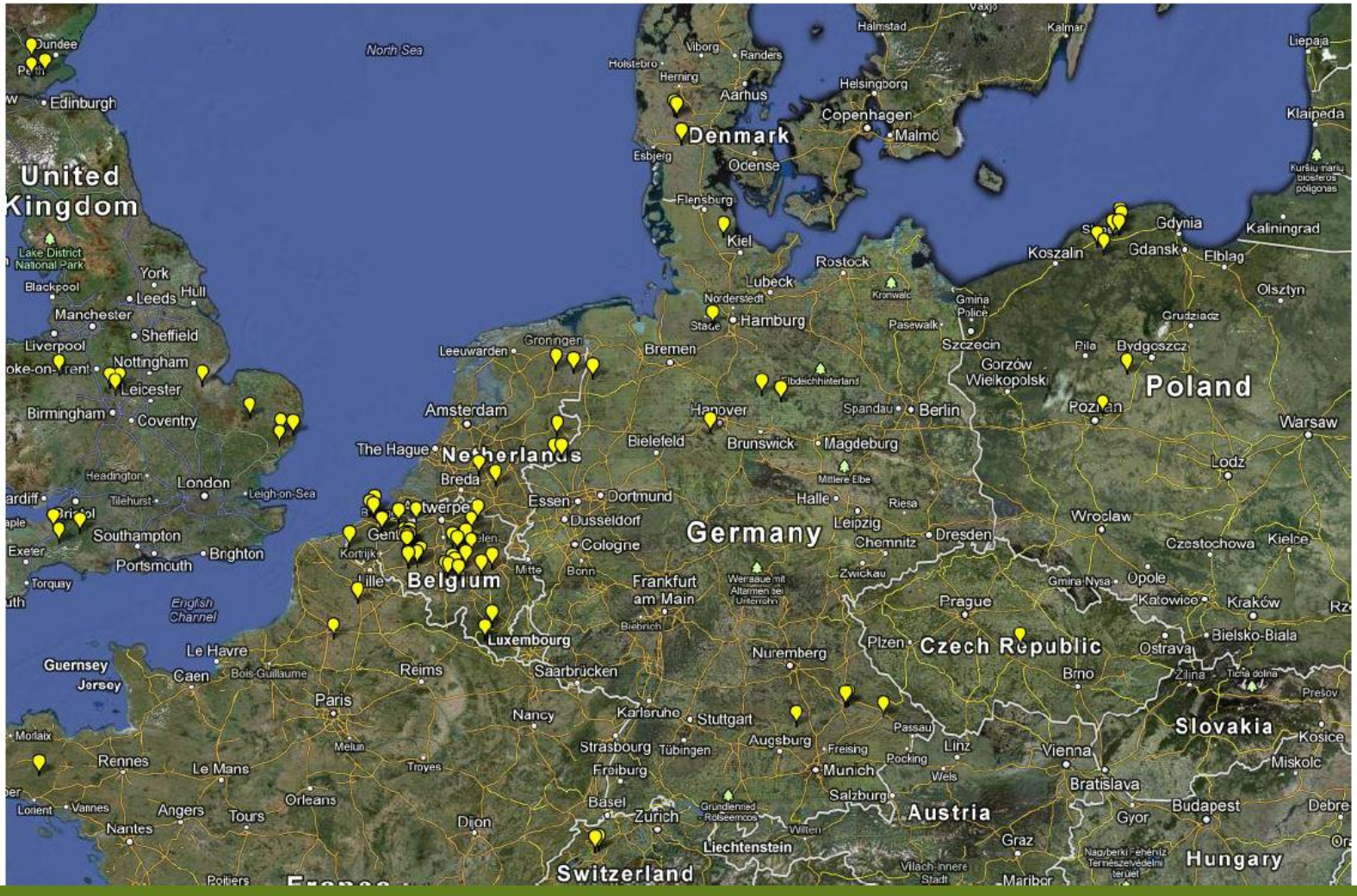
First results of an EU-wide genotype monitoring of *Phytophthora infestans* isolates using FTA cards

F. Meier-Runge, T. van den Bosch, M. Förch,
B. Evenhuis, G. Kessel, D. Cooke

Euroblight conference May 2013,
Limassol

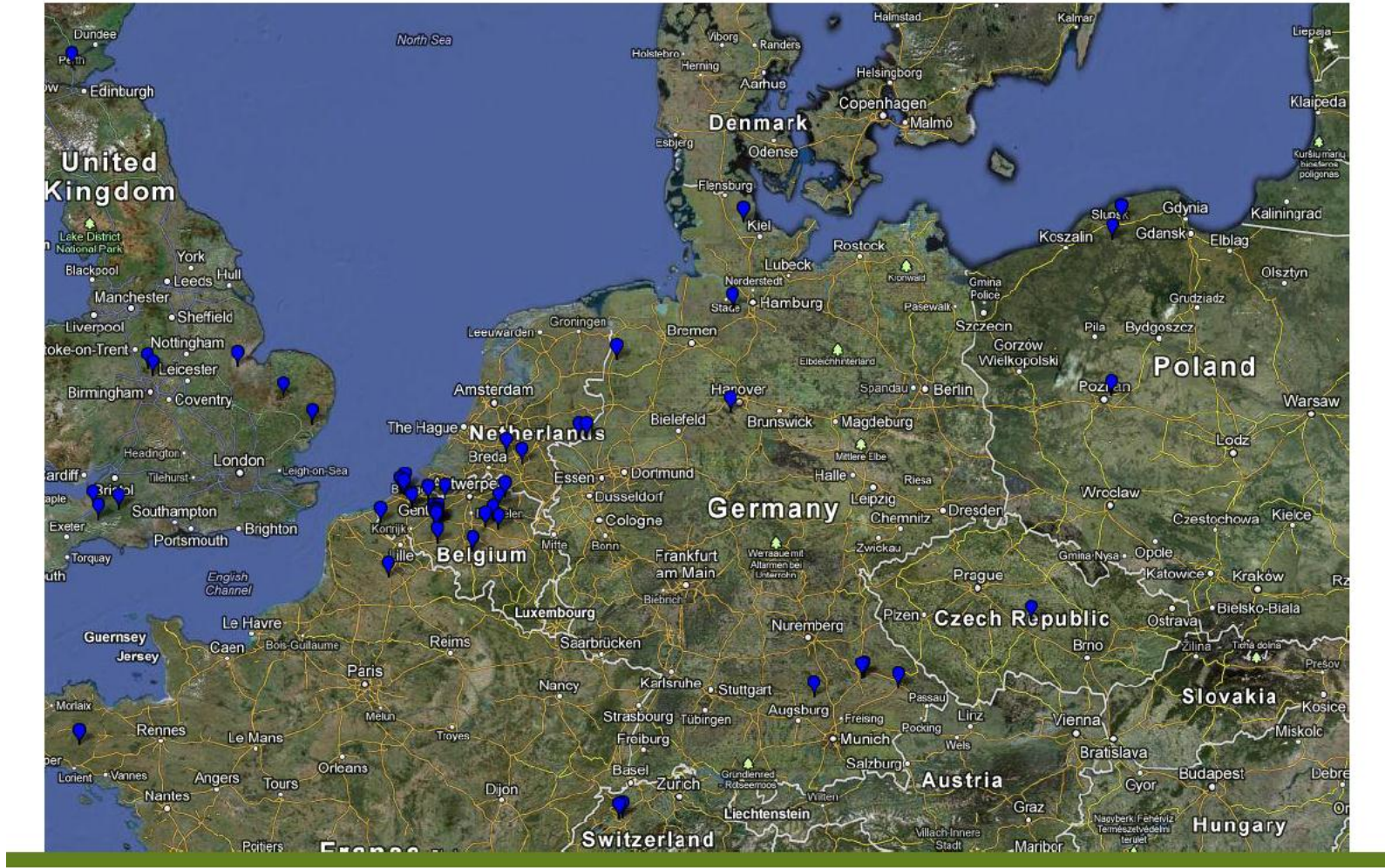
Monitoring *Phytophthora infestans* in Europe 2012

All sites with successful samples



Monitoring *Phytophthora infestans* in Europe 2012

All sites with Blue 13 (13_A2)



Monitoring *Phytophthora infestans* in Europe 2013

P. INFESTANS MONITORING EUROPE

The map indicate locations where samples were taken for SSR analysis. The map will be updated whenever new survey data are received at Aarhus University hosting the EuroBlight databases. More data will be received during autumn 2013. The data will be genotyped using SSR microsatellites at Wageningen University and at the James Hutton Institute. When results are available from these analysis, they will be presented on the EuroBlight web site



Monitoring *Phytophthora infestans* 2013 in Europe

The very fast and sudden changes in populations of the late blight pathogen *Phytophthora infestans* in Europe stress the need for constant monitoring of population structures and characterisation of invasive genotypes, to understand the reasons for these changes and finally predict them. The clonal lineage Blue 13 became dominant in various countries after 2004 thanks to its increased aggressiveness. Since Blue 13 is also usually resistant to metalaxyl, control strategies had to be adapted. Recently the clonal lineage Green 33 was detected in the Netherlands from 2009 onwards. Green 33 isolates seem to have a decreased sensitivity to fluazinam. Control strategies had to be adapted accordingly.

This project aims to collect 1000-1500 late blight samples from the main potato growing regions in Europe. The goal is to capture as much genotypic variation as possible by sampling as many fields as possible. Samples are analysed using standardised 12 plex EuroBlight SSR genotyping. The results will provide insight in the international, national and regional structures of

<http://euroblight.net/pathogen-characteristics-and-host-resistance/p.-infestans-monitoring-europe/>

EuroBlight fungicide evaluation – efficacy tables



Fungicide comparison - Updated 3 August 2012

The effectiveness of fungicide products/co-formulations for the control of *P. infestans* based on the **highest** rate registered in Europe. These ratings are the opinion of the Fungicides Sub-Group at the St Petersburg late blight workshop, 2011 and are based on field experiments and experience of the products performance when used in commercial conditions.

Please find the Provisional ratings for the effectiveness of new fungicide products for the control of *P. infestans* in Europe (B table) [here](#)
Please find the Efficacy ratings of fungicides for the control of early blight caused by *Alternaria solani* and *Alternaria alternata*. [here](#)

Hold mouse over headers to get explanation

Product (Dose rate [litre or kg/ha]) ¹	Effectiveness				Mode of action			Rainfastness	Mobility in the plant
	Leaf blight ²	New growth	Stem blight	Tuber blight ⁷	Protectant	Curative	Anti sporulant		
copper			●		●●	0	0	●	contact
dithiocarbamates ³ (2.0)	2.0		●	0.0	●●	0	0	●●	contact
chlorothalonil			●		●●	0	0	●●●	contact
cyazofamid (0.5)	3.8	●●	●	3.8	●●●	0	0	●●●	contact
fluazinam (0.4)	2.9		●		●●●	0	0	●●●	contact
zoxamide + mancozeb (1.8)	2.8		● ⁵		●●●	0	0	●●●	contact + contact
famoxadone + cymoxanil			●●		●●	●●	●	●●●	contact + translaminar
mandipropamid (0.6)	4.0	●●	●●		●●●	● ⁶	●●	●●●	translaminar + contact
benthiavalicarb + mancozeb (2.0)	3.7		●● ⁵		●●●	●●	●	●●●	translaminar + contact
cymoxanil + mancozeb			●●		●●	●●	●	●●●	translaminar + contact
cymoxanil + metiram			●●		●●	●●	●	●●●	translaminar + contact
cymoxanil + copper			●●		●●	●●	●	●●●	translaminar + contact
dimethomorph + mancozeb (2.4)	3.1		●●		●●●	●	●●	●●●	translaminar + contact
fenamidone + mancozeb (1.5)	2.6		●● ⁵		●●●	0	● ⁵	●●●	translaminar + contact
benalaxyl + mancozeb ⁴		●●	●●		●●●	●●●	●●●	●●●	systemic + contact
metalaxyl-M + mancozeb ⁴		●●	●●		●●●	●●●	●●●	●●●	systemic + contact
metalaxyl-M + fluazinam ⁴		●●	●●		●●●	●●●	●●●	●●●	systemic + contact
propamocarb-HCl + mancozeb		●●	●●		●●●	●●	●●	●●●	systemic + contact
propamocarb-HCl + chlorothalonil (2.7)	3.4	●●	●●		●●●	●●	●●	●●●	systemic + contact
propamocarb-HCl + fenamidone (2.0)	2.5	●●	●●		●●●	●●	●●	●●●	systemic + translaminar
propamocarb-HCl + fluopicolide (1.6)	3.8	●●	●●	3.9	●●●	●●	●●●	●●●	systemic + translaminar

¹ The scores of individual products are based on the label recommendation and are NOT additive for mixtures of active ingredients. Inclusion of a product in the list is NOT indicative of its registration status either in the EU or elsewhere in Europe. The dose rates mentioned between brackets are those used in the EuroBlight field trials to determine the leaf blight rating, ² Based on EuroBlight field test in 2006-2010, ³ Includes maneb, mancozeb, propineb and metiram, ⁴ See proceedings for comments on phenylamide resistance, ⁵ Based on limited data, ⁶ In some trials there were indications that the rating was 1½, ⁷ Based on EuroBlight field trials 2009-2011

Ratings for leaf blight is based on results from EuroBlight field trials during 2006-2011, and only compounds included in these trials are rated for leaf blight. The scale for leaf blight is a 2-5 scale (see technical report: [Fungicide evaluation to rate efficacy to control leaf late blight for the EuroBlight table. Results 2006 - 2011](#)). All other ratings are 1-3 scale indicated by a combination of full (1) and half (½) orange colored dots.

Ratings for tuber blight are based on results from EuroBlight field trials during 2009-2011, and only compounds included in these trials are rated for tuber blight. The scale for tuber blight is a 0-5 scale (see technical report: [Fungicide evaluation to rate efficacy to control tuber blight for the EuroBlight table. Results 2009-2011](#)).

Key to ratings: 0 = no effect ; ● = reasonable effect ; ●● = good effect ; ●●● = very good effect ; N/A = not recommended for control of tuber blight; Blank = no rating.

Whilst every effort has been made to ensure that the information is accurate, no liability can be accepted for any error or omission in the content of the tables or for any loss, damage or other accident arising from the use of the fungicides listed herein. Omission of a fungicide does not necessarily mean that it is not approved for use within one or more EU countries.

The ratings are based on the label recommendation for a particular product. Where the disease pressure is low, intervals between spray applications may be extended and, in some countries, fungicide applications are made in response to nationally issued spray warnings and/or Decision Support Systems. It is essential therefore to follow the instructions given on the approved label of a particular blight fungicide appropriate to the country of use before handling, storing or using any blight fungicide or other crop protection product.

<http://130.226.173.223/euroblight/FungicideComparison.asp?language=UK>

EuroBlight fungicide evaluation – efficacy tables

Table B. Provisional ratings¹ for the effectiveness of new fungicide products for the control of *P. infestans* in Europe.

These ratings are the opinion of the Fungicides Sub-Group at the St Petersburg blight workshop, 2011 and are based on field experiments and not experience in commercial potato production.

Product	Dose rate (litre or kg/ha)	Effectiveness				Mode of Action			Rainfastness	Mobility in the plant
		Leaf blight	New growth	Stem blight	Tuber ⁶ blight	Protectant	Curative	Anti-sporulant		
amisulbrom + mancozeb	0.5 + 2.0	4,5	?	+	3.7	++(+)	0	?	+++	contact + contact
initium + mancozeb	2.5	3.7 ³	? ⁴	? ⁴		++(+)	0	0	+++	contact + contact
dimethomorph + fluzinam	1.0	3.7			3.3					translaminar + contact
(propamocarb + cymoxanil) + cyazofamid	2.0 + 0.5				4.6					(systemic + translaminar) + contact
propamocarb + cymoxanil	2.0	?	?	?		+(+)	++(+) ⁵	++(+)	?	systemic + translaminar

¹ The ratings for individual products are based on the label recommendation and are NOT additive for mixtures of active ingredients. Inclusion of a product is NOT indicative of its registration status either in the EU or elsewhere in Europe. ²Based on limited data; an efficacy greater than ++(+) was observed in some trials. ³ Calculated from EuroBlight trials ⁴Observations from some field trials indicated that both new growth and stem blight efficacy were ++. ⁵ In some trials the curative activity was +++. ⁶Based on EuroBlight field trials 2009-2011.

Key to ratings : 0 = no effect ; + = reasonable effect ; ++ = good effect ; +++ = very good effect ; ? = no experience in trials and/or commercial

Ratings for tuber blight are based on results from EuroBlight field trials during 2009-2011, and only compounds included in these trials are rated for tuber blight. The scale for tuber blight is a 0-5 scale (see technical report).

EuroBlight fungicide evaluation – efficacy tables -

Alternaria efficacy

Table 3. Efficacy of fungicides for the control of early blight caused by *Alternaria solani* and *Alternaria alternata*.

Product	Efficacy ¹
azoxystrobin	+++
fluazinam	(+)
metiram/mancozeb ²	++
propineb	++
chlorothalonil	+(+)
famoxadone+cymoxanil	++
fenamidone+mancozeb	++
or propamocarb ³	
zoxamide+mancozeb	++(+)
pyraclostrobin+boscalid	+++

¹ **Key to ratings** : 0 = no effect ; + = some effect; ++ =reasonable effect ; +++ = good effect ; ++++ very good effect

² This rating applies to mancozeb containing products when used at the highest dose rates (>1500g/ha). Where less than this rate of mancozeb is used, this rating may not be appropriate particularly where the second active substance is not effective against *Alternaria*.

³ In some trials there were indications that the rating was ++(+)

http://130.226.173.223/euroblight/upload/euroblight/document/Table_Early_Blight.pdf

EuroBlight fungicide evaluation -



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NEW EUROBLIGHT REPORT ON FUNGICIDE EVALUATION

Fungicide evaluation to rate efficacy to control leaf late blight for the EuroBlight table. Results 2006 - 2012

2013.07.30 | [JENS GRØNBECH HANSEN](#)





EuroBlight


This is the [final report on the Euroblight trials](#) concerning foliar blight to be published on the web site.


Fantic M has fulfilled the requirements and is rated 3.0. The product is registered in several European countries. Fantic M will be added to the EuroBlight table as well.

We will re-programme the EuroBlight fungicide tables as soon as possible to adapt to the new web site technology and layout.

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<http://euroblight.net/currently/news/nyhed/artikel/new-report-on-fungicide-evaluation/>

EuroBlight meeting in Cyprus – 12-15 May 2013 – statements to policy makers in EU

EuroBlight recommends three integrative activities to be funded:

- 1. Population monitoring of major pathogens and pests**
- 2. Connecting genotype and phenotype for the improvement of Decision Support Systems**
- 3. Development and maintenance of web based, collaborative information platforms be supported over time through the core funding dedicated to the implementation of the National Action Plans for IPM and to the European Research and Innovation agenda (Horizon 2020).**

<http://euroblight.net/fileadmin/euroblight/Workshops/Limassol/EuroBlightStatement2013.pdf>

Blight and potato harvest in Cyprus May 2013

Thank you for your attention

