

## Early blight subgroup



## activities

- summarise protocols


## activities

18 different “lab protocols”


- + qPCR
- + Artificial inoculation
- + Long-Term Storage
- + Growth and conidia production
- + Isolation
- + Characterization of Cytb mutations

# activities

- protocols: download EUROBLIGHT homepage



A potato late blight network for Europe



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## PROTOCOLS

The first early blight subgroup meeting brought together 19 Euroblight members on 19-20 march at Freising, Germany. Over the two days EB field experiments and fungicide ratings were discussed along with increasing problems associated with losses in fungicide sensitivity. In order to improve and standardize the monitoring and diagnostics of EB relevant species lab protocols for testing and comparison are now available on the EuroBlight website. Protocols collated by the Alternaria sub-group is organized according to different topics and they will be further elaborated and new ones will appear whenever appropriate.

Protocol title	Contact person	Download
<b>qPCR</b> Qualitative PCR diagnostics of <i>A. solani</i> and <i>A. alternata</i>	Andrea Volz, a.backhaus@wzw.tum.de; Jürgen Leiminger, juergen.leiminger@lfl.bayern.de Lehrstuhl für Phytopathologie, Wissenschaftszentrum Weihenstephan Emil-Ramann-Str. 2 85354-Freising	June 2014 <a href="#">Download</a>

**Artificial inoculation**



## activities

- subgroup meeting 19.- 20. March 2014 in Munich

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## activities

- subgroup meeting 19.- 20- March 2014 in Munich:

<b>Title of presentation</b>	<b>Author</b>
Results of field trials with fungicide timing	Jan Spoelder
Monitoring and field experiments with Early Blight in Denmark	Bent Nielsen
Protocol for testing fungicides, results of field trials 2014	Hans Hausladen
Fungicide rating – new approach	Bert Evenhuis
Pathogenicity of <i>Alternaria</i> species: Summary of BASF results	Vanessa Tegge
Genotype distribution and strobilurin sensitivity of <i>Alternaria solani</i> in Sweden	Eva Edin
Occurrence of F 129 L mutation of <i>A. solani</i> in Germany	Birgit Adolf
Mutation of <i>A. alternata</i>	Jan Nechwatal
<i>Alternaria solani</i> & ozone	Jan Spoelder
Towards a knowledge-based approach for an integrated control of <i>Alternaria</i> spp. in potatoes	Sofie Landschoot

## activities

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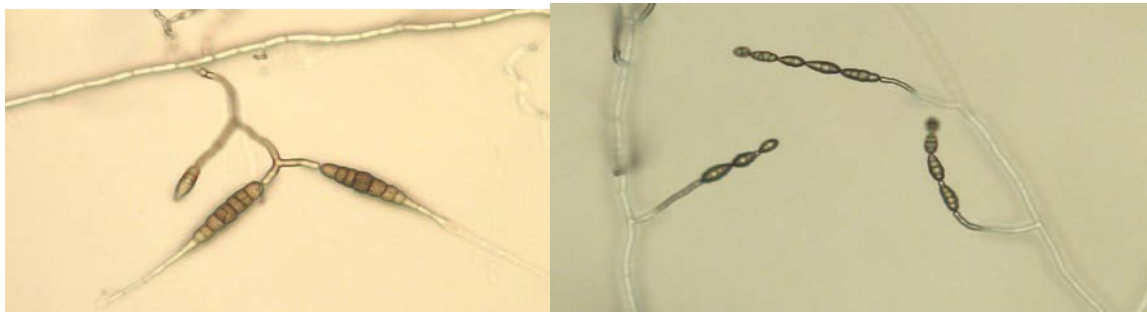
- subgroup meeting 19.- 20. March 2014 in Munich:

→ Diagnostic ring test



## Background Alternaria ring test

- Collection of *Alternaria* infected leaves from different countries
- Shipment to different labs, sample preparation and evaluation of *Alternaria* species
- Participating Labs: Bert Evenhuis and Marieke Förch (WUR, The Netherlands)  
Jan Spoelder (HLB, The Netherlands)  
Jürgen Leiminger and Anna Livic (TUM, Germany)
- each lab will analyze leaf samples according to their own lab protocols
- analysis of *Alternaria* species according to spore formation (microscope)





## analysed leaf samples

Nr.	country	sample sent by	field location	leaf level	variety	fungicide treatment	disease severity	sampling date
1	Germany	Jürgen	Freising	low-middle	Agila	untreated	?	15.07.2014
2	Germany	Jürgen	Freising	low-middle	Maxilla	untreated	?	15.07.2014
3	Germany	Jürgen	Straßmoos	middle	unknown	Mancozeb	moderate	25.07.2014
4	Belgium	Pieter	Passionistenstraat, Kruishoutem 9770	middle	Bintje	untreated	5%	08.08.2014
5	The Netherlands	Jan	Wijster	?	Festien	untreated	10%	11.08.2014
6	Sweden	SLU	Nymö	?	Kuras	untreated	?	31.07.2014
7	Sweden	SLU	Nymö	?	Kardal	untreated	?	07.08.2014
8	Sweden	SLU	Nymö	?	Kuras	untreated	?	19.08.2014
9	Germany	Jürgen	Niedersunzing	high	unknown	treated	moderate to high	24.08.2014
10	Belgium	Pieter	Passionistenstraat, Lozer	Middle-high	Bintje	untreated	0.5-1%	28.08.2014
11	The Netherlands	Marieke	Westmaas	higher	unknown	treated	?	01.09.2014
12	The Netherlands	Marieke	Valthermond		Aveka	untreated	20%	03.09.2014
13	The Netherlands	Marieke	Lelystad	higher	Bintje	untreated	75%	02.09.2014

## activities

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- first country report on early blight

## activities

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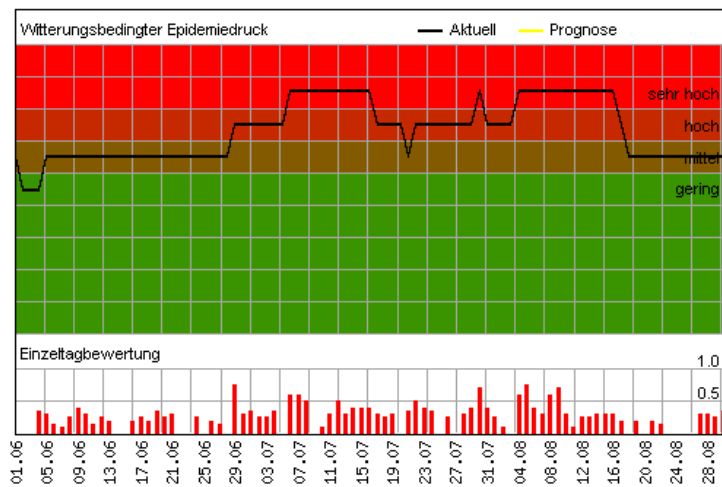
- first country report on early blight 2013 & 2014:
  - + disease / epidemic outbreak
  - + disease severity
  - + fungicide used
  - + Alternaria species
  - + yield loss
  - + early blight model: infection risk  
(Phytophthora model Weihenstephan)

## activities

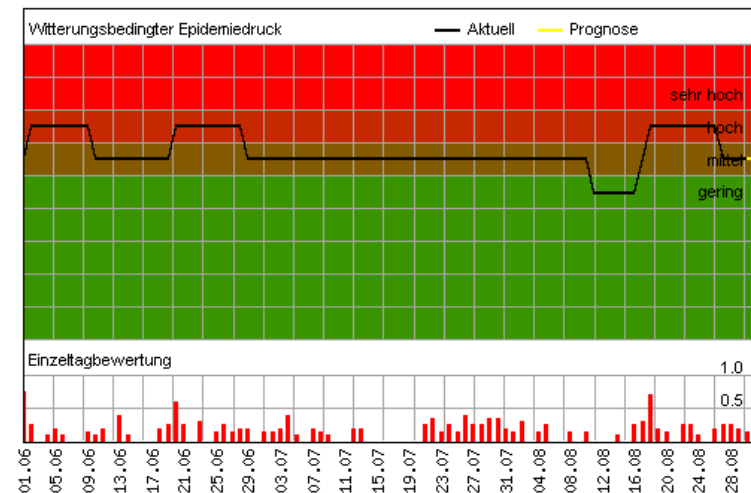
Early blight model:

calculate infection risk for 28 EU weather station 2013 + 2014

Bonin, PL, 2014



Alnarp, SE, 2013



## activities

- subgroup meeting 19.-20. March 2014 in Munich:

→ Decimal rating of EB fungicides

harmonised protocol for testing eb fungicides

## “new” objective of the EB sub group

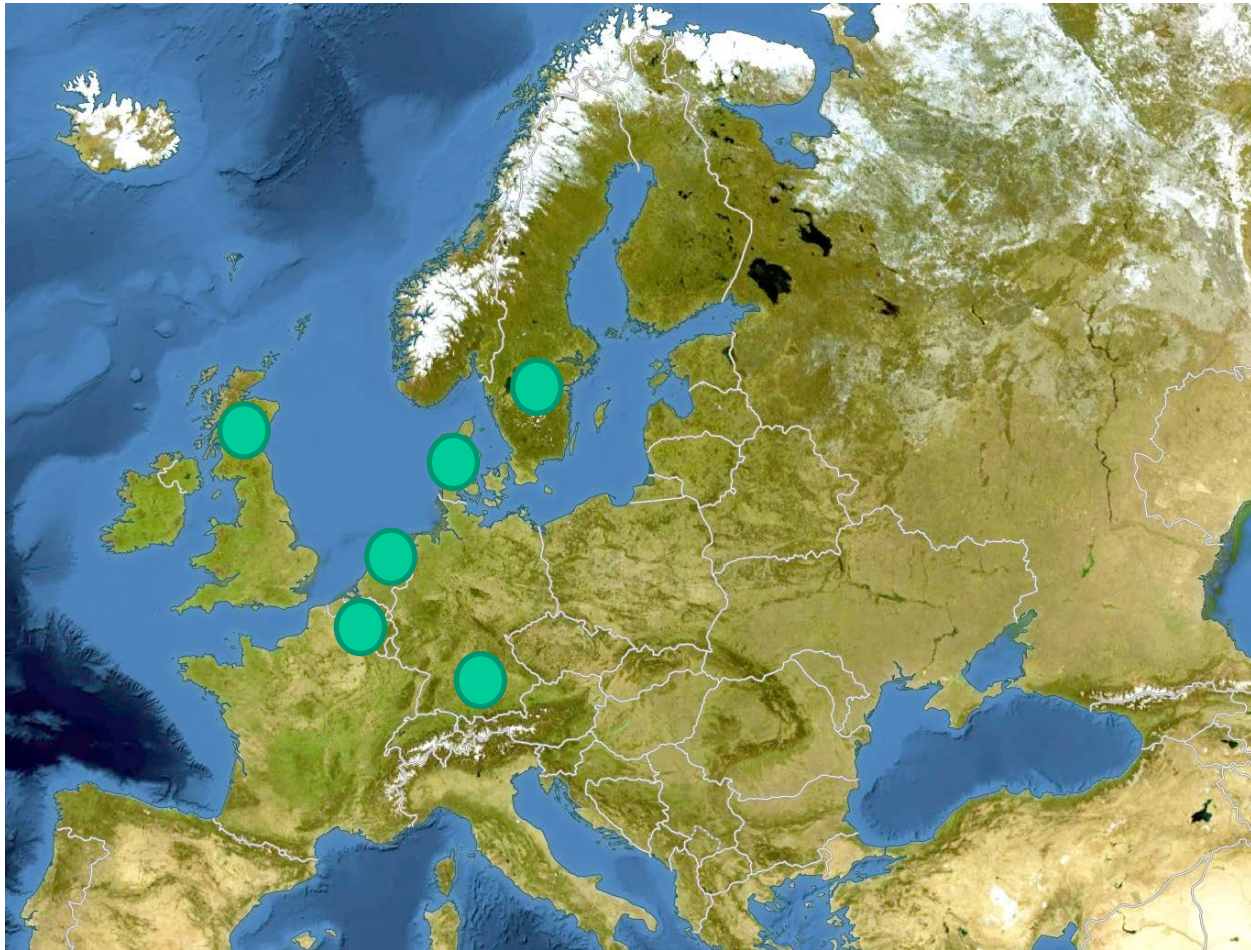
- basis (valid/actual data base) for a IPM system to control EB  
(e.g. isolate characterisation, fungicide sensitivity, ...)

## new initiatives

- Monitoring F129L mutation in *A. solani* in Europe



## new initiatives: lab involved in the F129L Monitoring



6 labs:

Alison

Erland

Bent

Bert

Pieter

Birgit

## Interaction with the international networks

Share informations:

e.g. protocols, fungicide efficacy, fungicide sensitivity....

**Thanks to  
Early blight subgroup**

