



## Epidemics and control of late blight, 2010 & 2011 in Europe

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# Late blight country reports - Questions

## EuroBlight Country Profile Data

- **SUMMARY**
- **Early outbreaks of potato late blight**
- **Weather conditions and late blight development**
- **Use of fungicides and control strategies**
- **Organic potatoes**
- **Tuber blight**
- ***Alternaria* ssp**
- **Characteristics of *Phytophthora infestans***
- **Use of cultivars**
- **Use of DSS +**
- **Actions and NAP preparing for Directive 2009/128/EC**

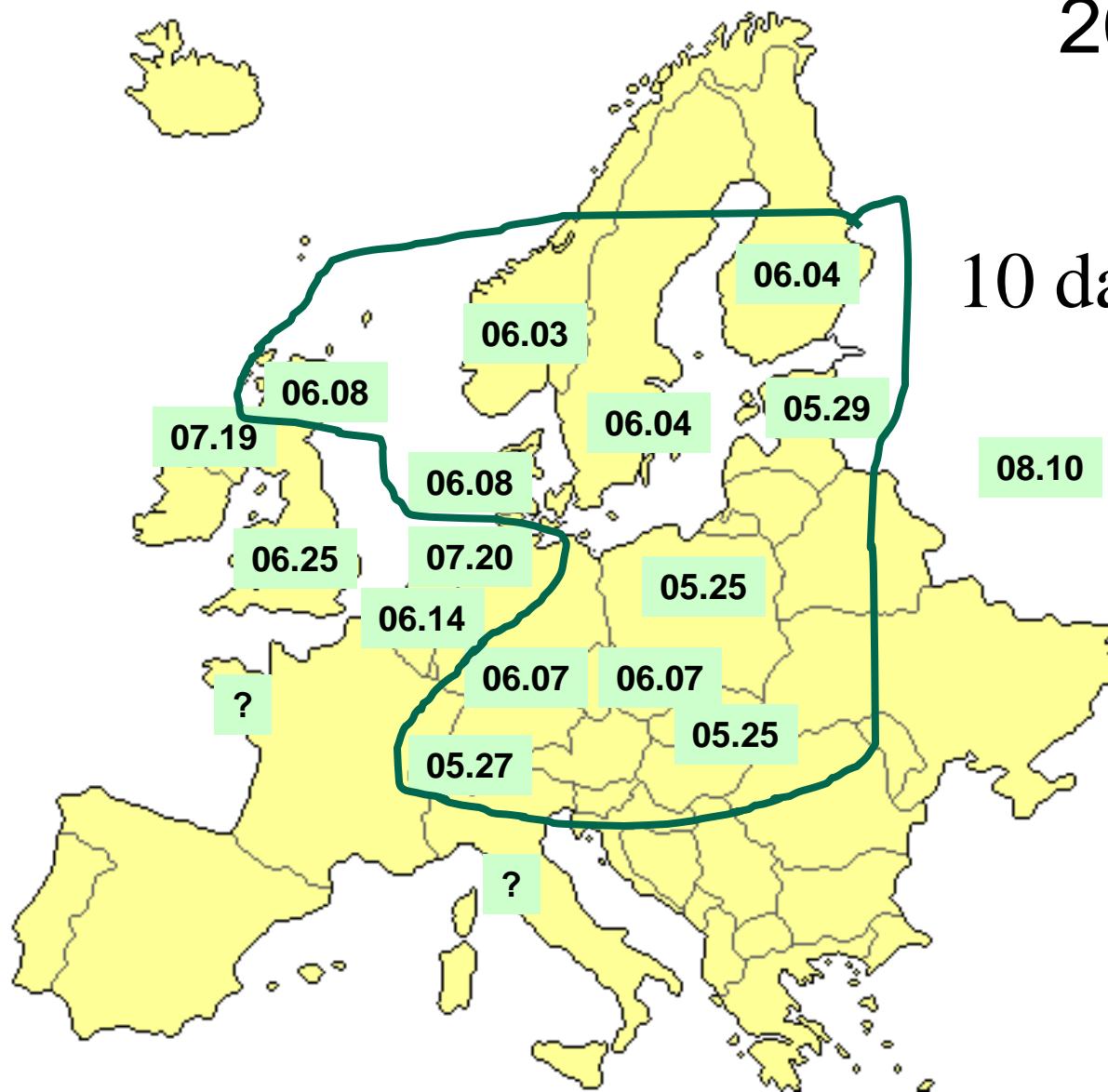
# Measurement of attack

- 1. First observation of late blight in covered or very early planted potatoes**
  
- 2. Date when first infections were reported in more than 5 conventional, normally planted potato fields**

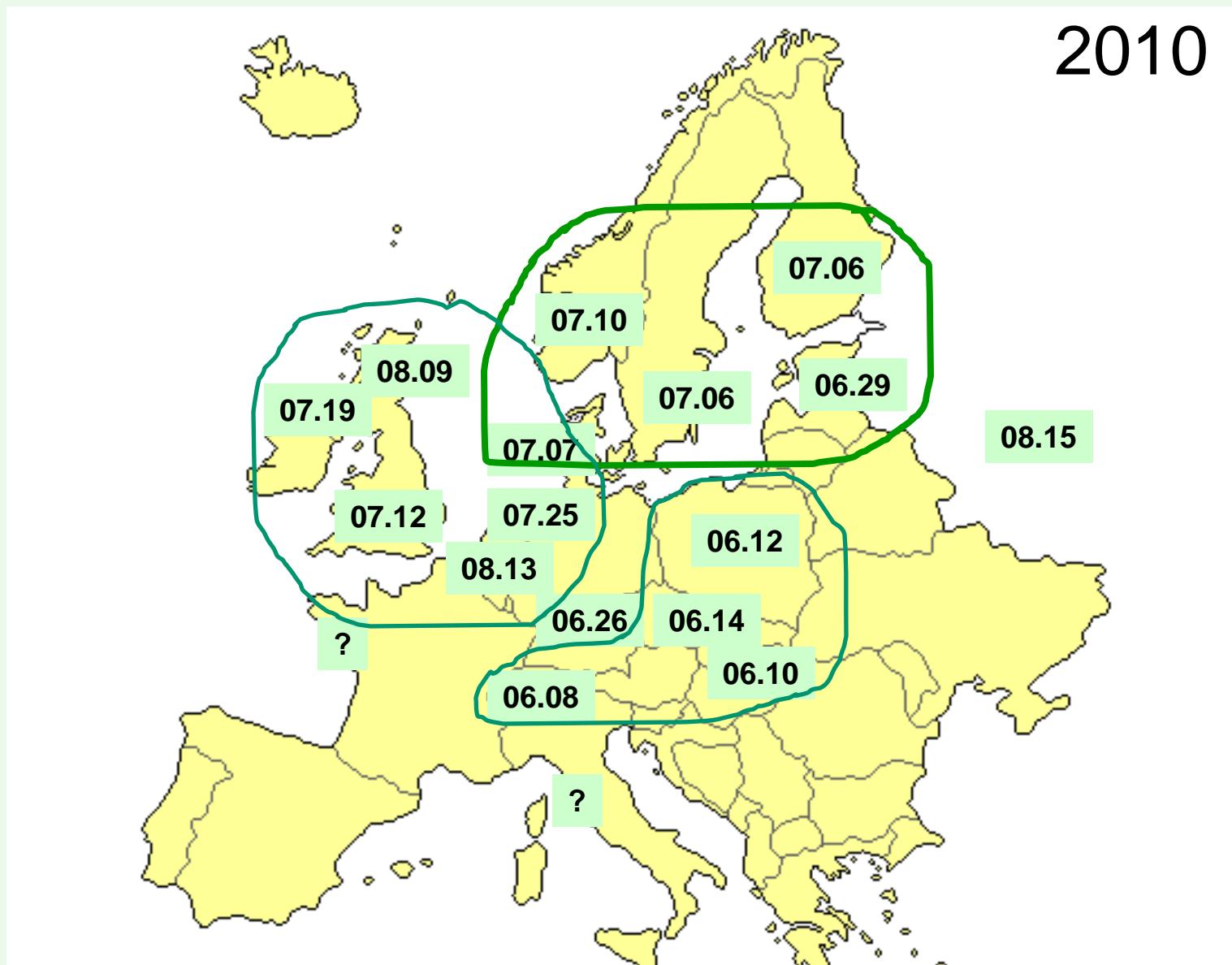
# First observation of late blight in covered or very early planted potatoes

2010

10 days



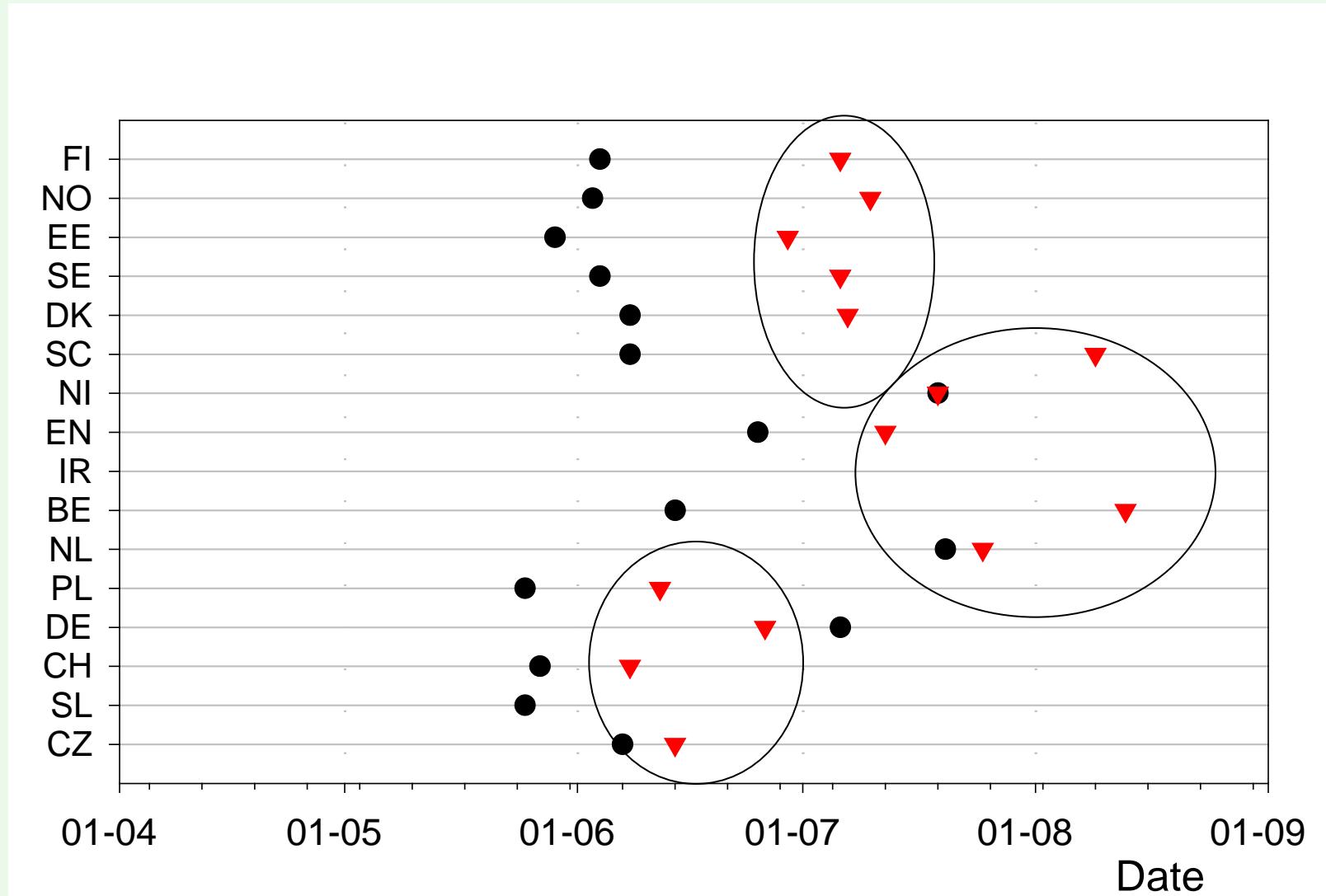
# Date when first infections were reported in more than 5 conventional, normally planted potato fields



# First infections, 2010

● = Covered potatoes, dumps, oospores

▼ = attacks in more than 5 conventional fields



# Late blight surveillance in 2011 - situation 27 June

A potato late

ælp

POTATO COUNCIL Supporting the British Potato Industry

Syngenta - Regional - Services - Phytophthora Modell Weihenstephan - Mozilla Firefox

Eller Rediger Vis Historik Bogmærker Funktioner Hjælp

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EuroBlight D MasterPlan Phytophthora... http://www.p...idents.html EuroBlight

Kritieke periode Wijzig gegevens Haarden Haarden Melden

Landelijk berekenen

(C) Bacon

Haarneningen  
Phytophthora infestans  
in omgeving van  
Landelijk  
(straal 175 km.)

Datum: 27-06-11

waardes

*	3
●	6
●	9

70 km

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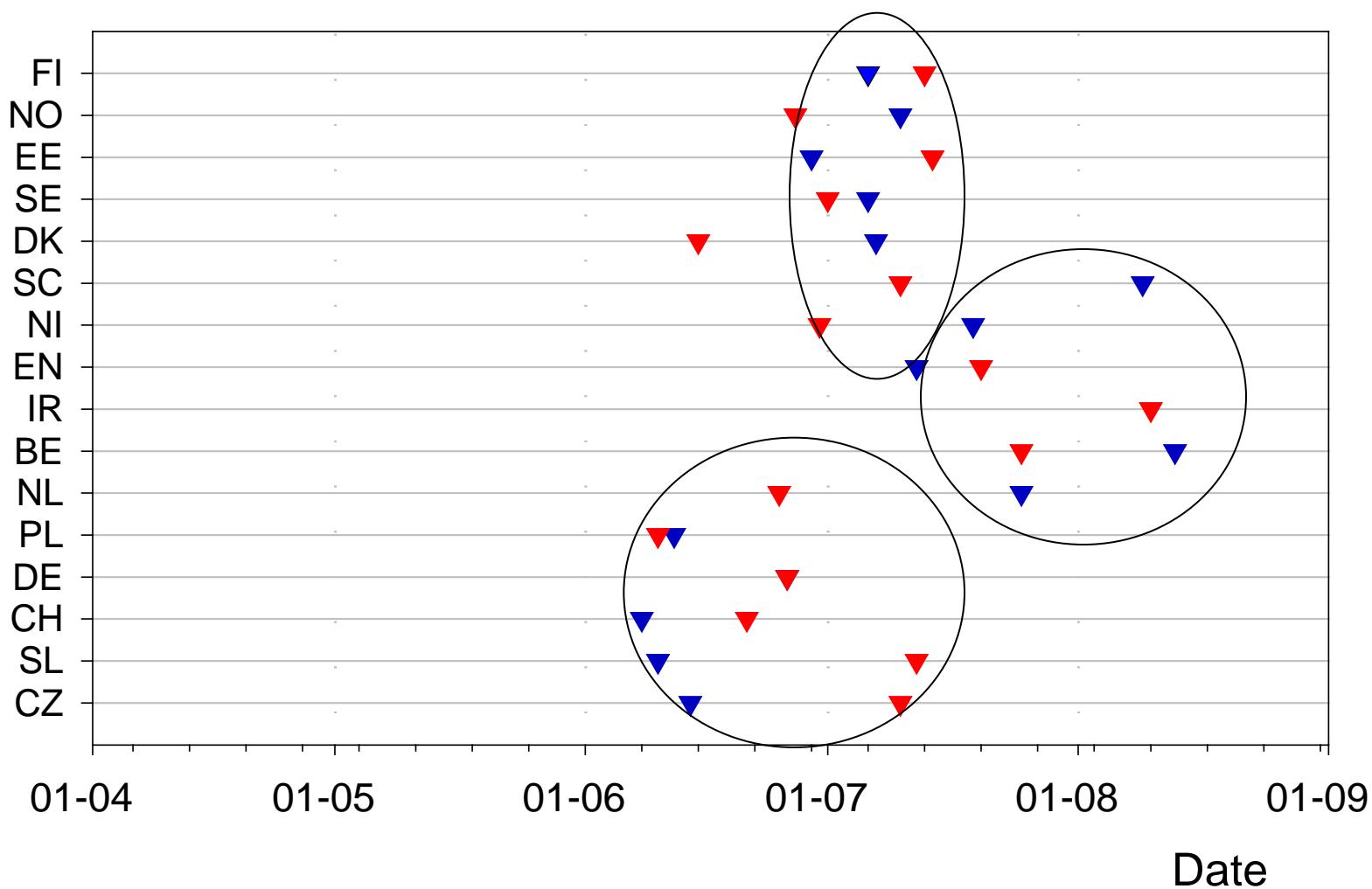
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Phytophthora

# Comparison between 2010 and 2011

▼ = 2011 attacks in more than 5 conventional fields

▼ = 2010 attacks in more than 5 conventional fields



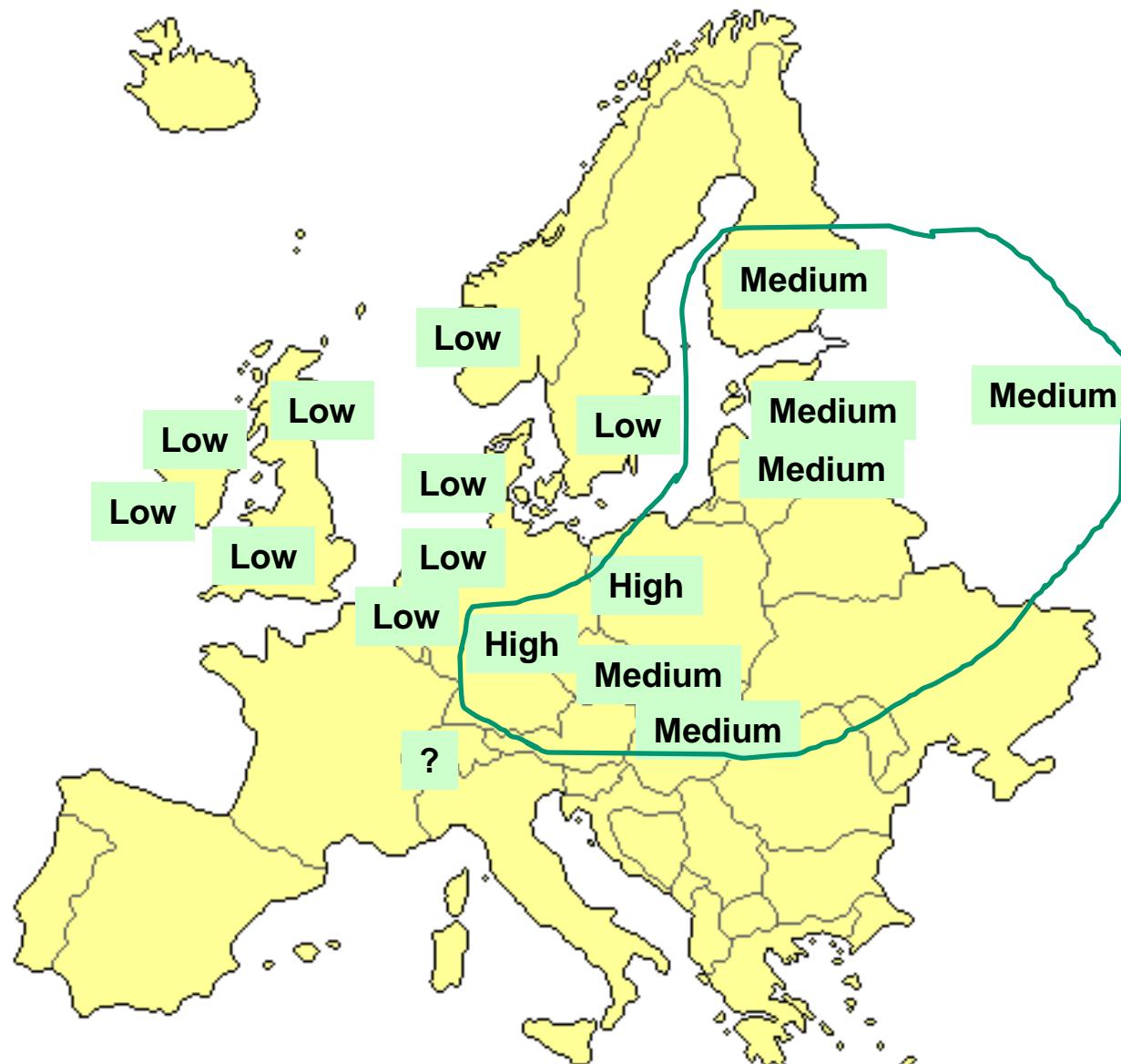
# Problems with tuber blight, 2010 (compared to normal)



# Problems with Alternaria, 2010 (compared to normal)

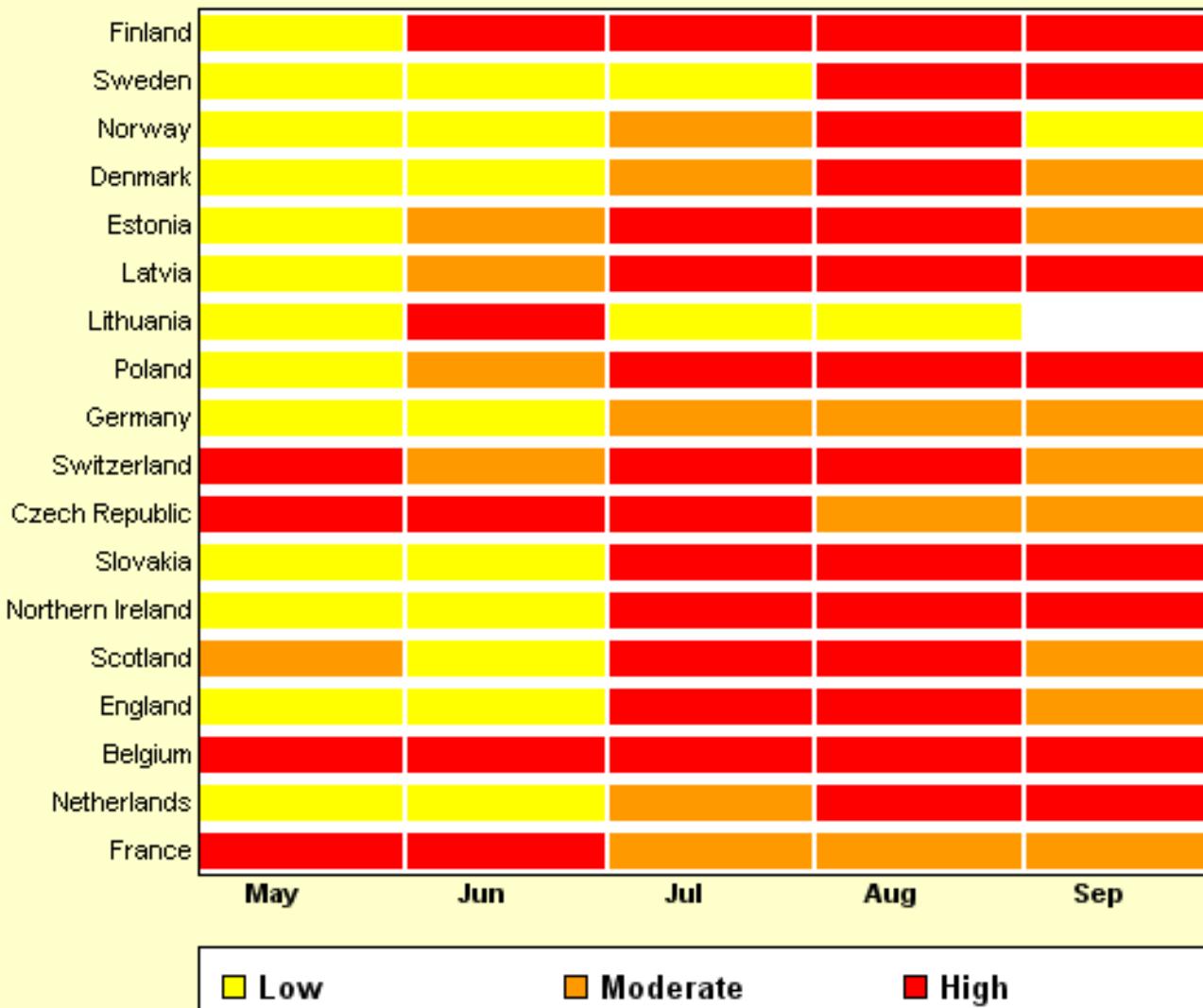


# Problems with Alternaria, 2011 (compared to normal)



# Weather based late blight risk, 2008

Weather based late blight risk in 2008



# Weather



# EuroBlight

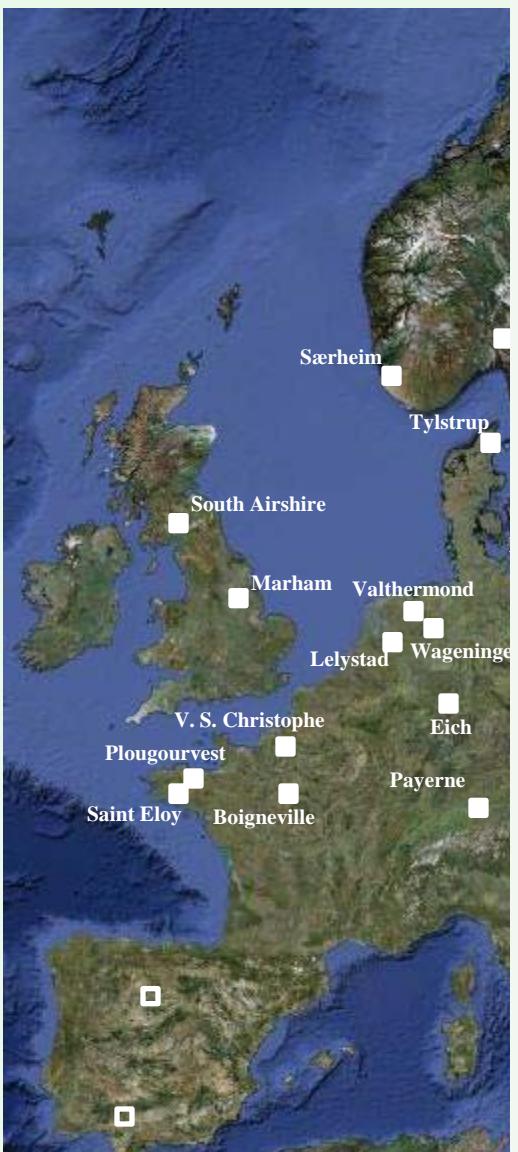
A potato late blight network for Europe



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Help



## Select specification

Country

Denmark

Weather station

Flakkebjerg

Year

2009

Start date

15-05-2009

End date

25-08-2009

Weather data type

Temperature and precipitation

Number of models

3

Model no. 1

Infection Pressure

RH threshold:

90% 88% 85%

Model no. 2

WURCP

RH threshold:

90% 88% 85%

Model no. 3

Smith Criteria

RH threshold:

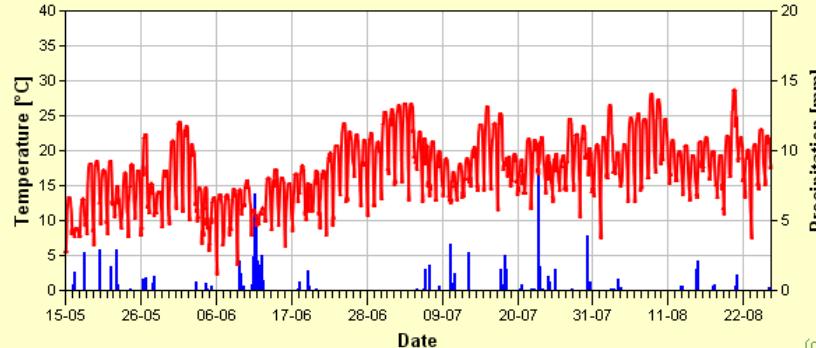
90% 88% 85%

Show biological data if present

Show new date interval

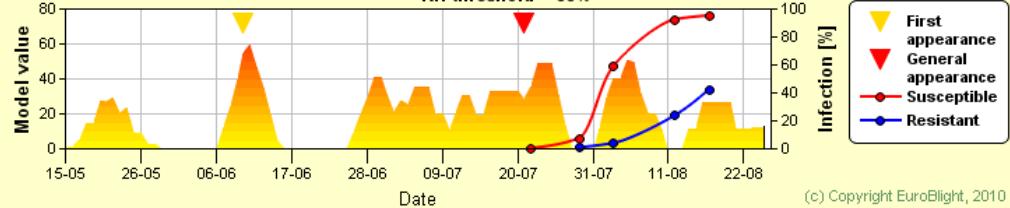
## Compare submodels

### Weather data from Flakkebjerg



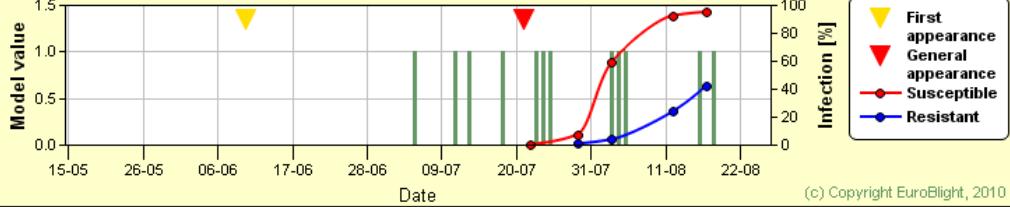
(c) Copyright EuroBlight, 2009

### Infection Pressure RH threshold = 88%



(c) Copyright EuroBlight, 2010

### WURCP RH threshold = 88%



(c) Copyright EuroBlight, 2010

### Smith Criteria RH threshold = 88%



(c) Copyright EuroBlight, 2010



## Infection pressure

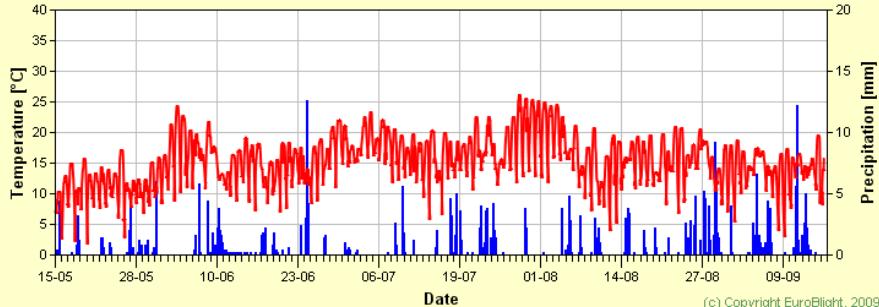
At selected stations 2011



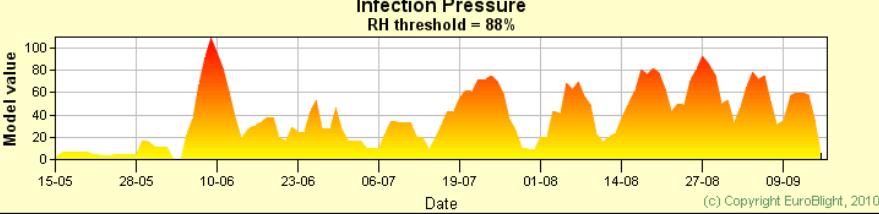
# Ås and Særheim - Norway

Compare submodels

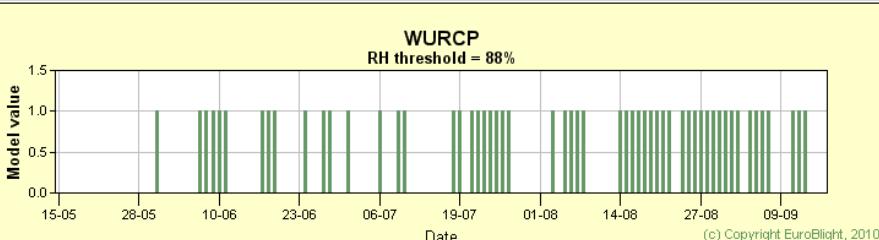
Weather data from Ås



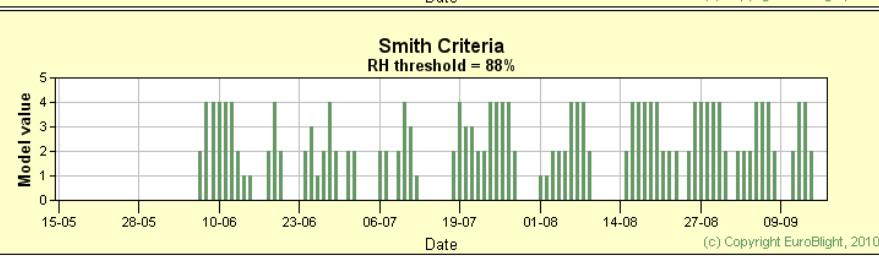
Infection Pressure  
RH threshold = 88%



WURCP  
RH threshold = 88%

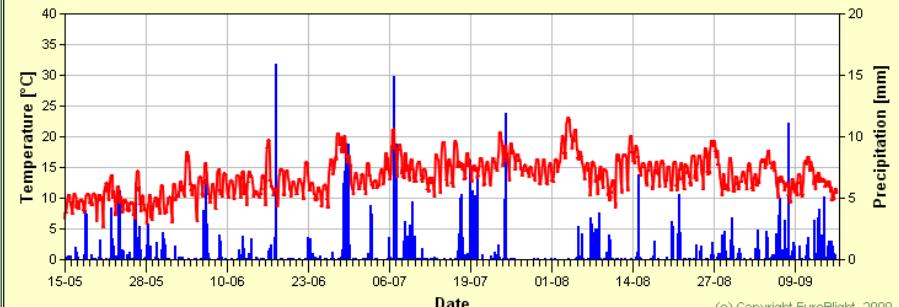


Smith Criteria  
RH threshold = 88%

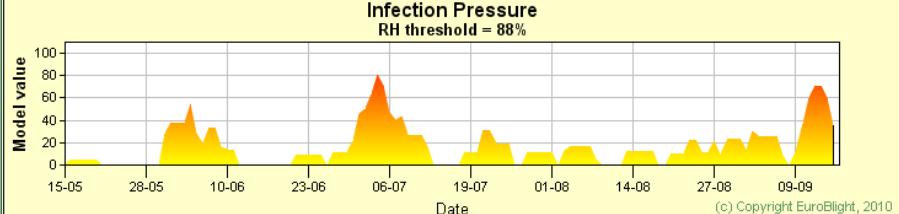


Compare submodels

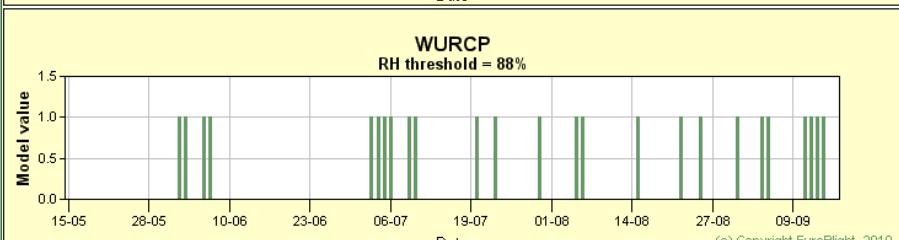
Weather data from Særheim



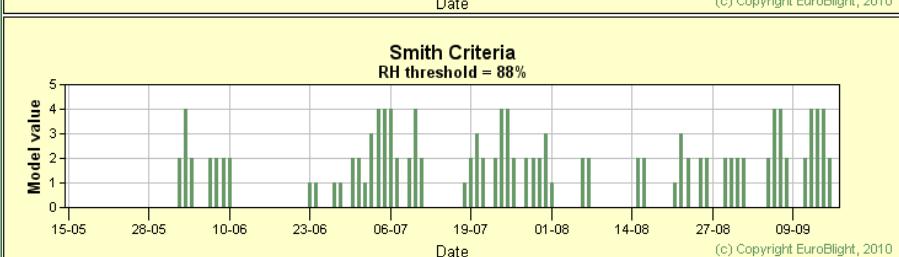
Infection Pressure  
RH threshold = 88%



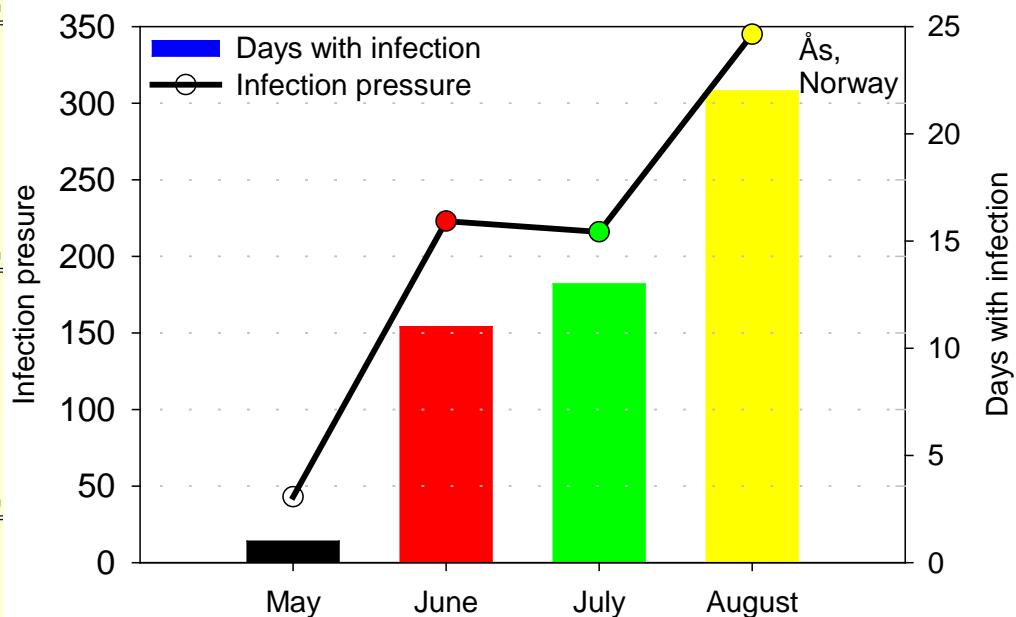
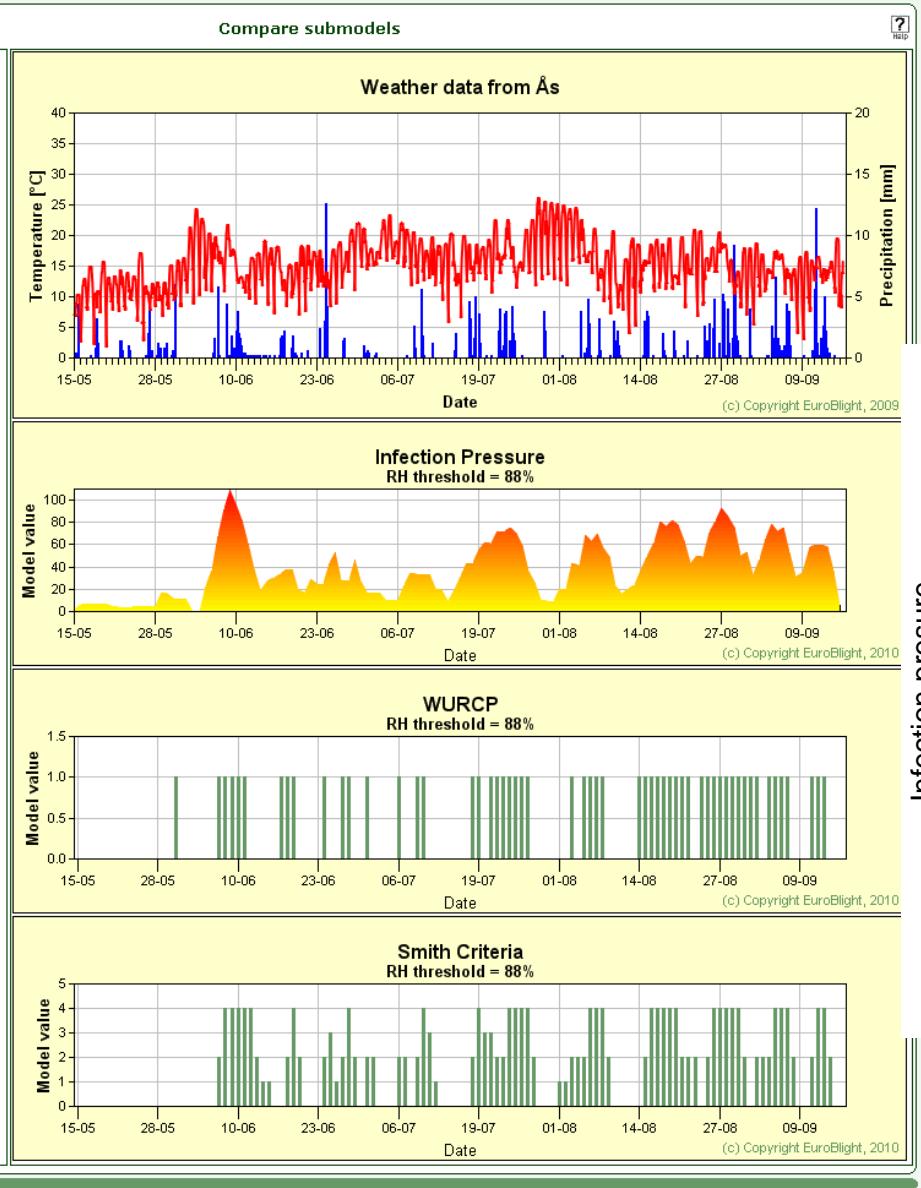
WURCP  
RH threshold = 88%



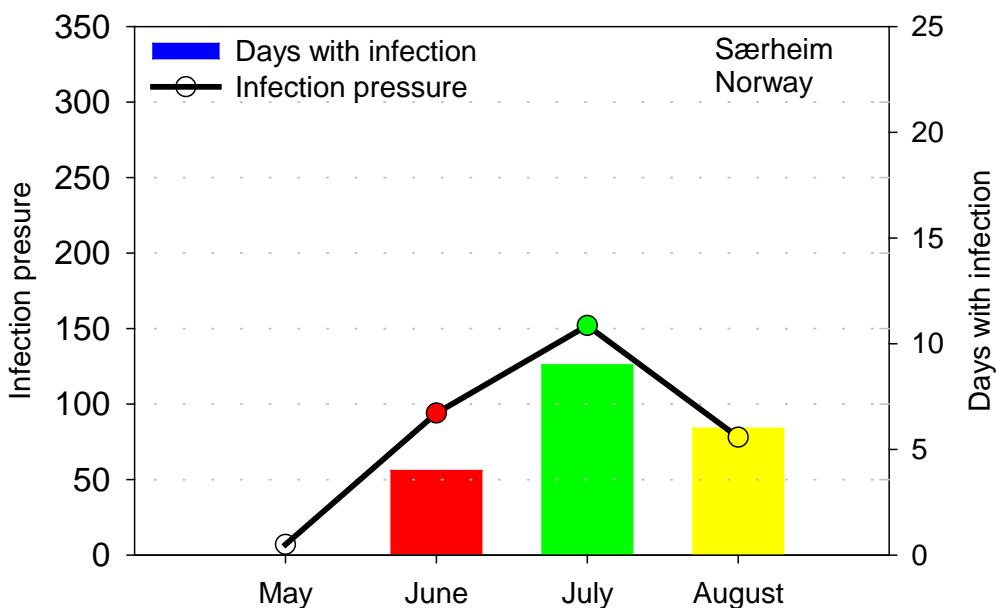
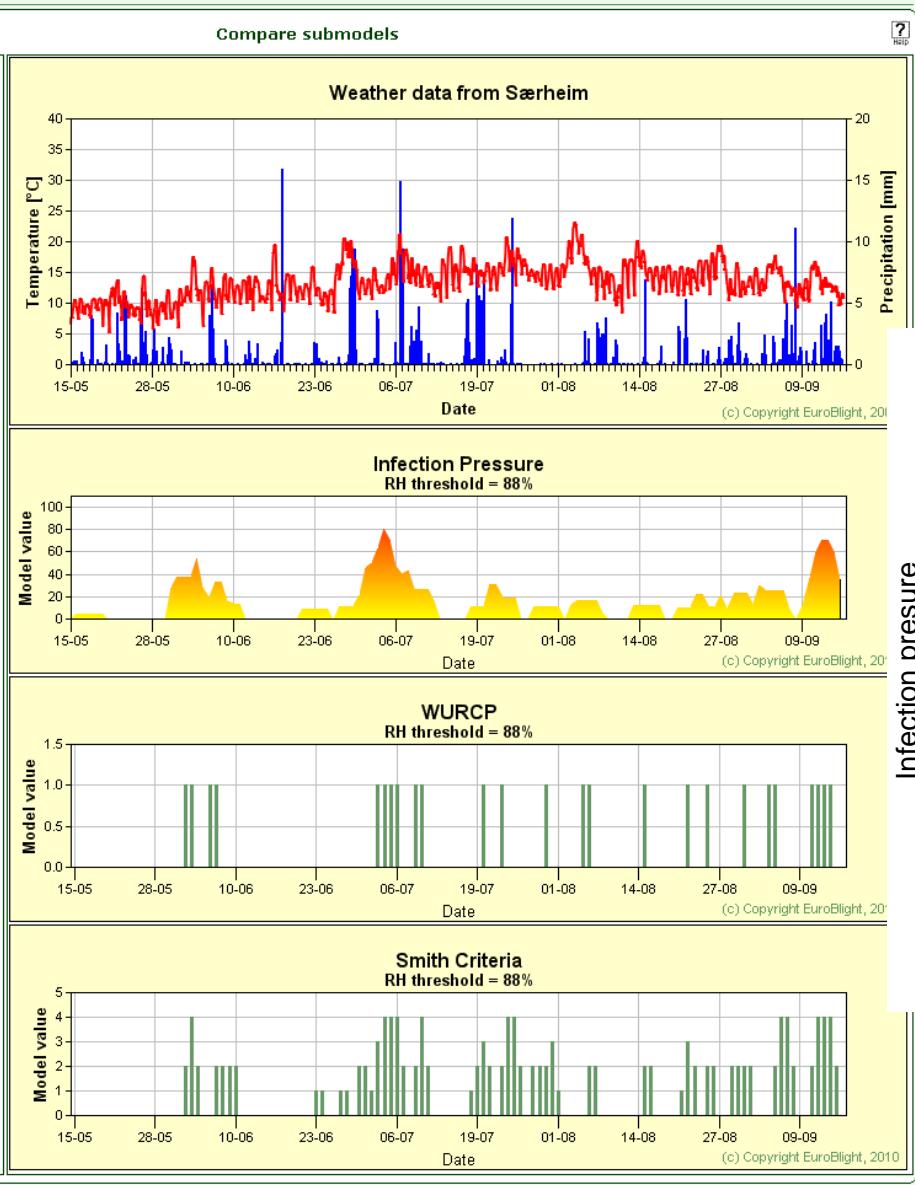
Smith Criteria  
RH threshold = 88%



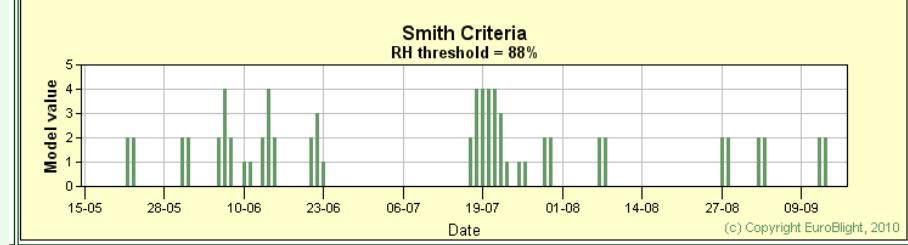
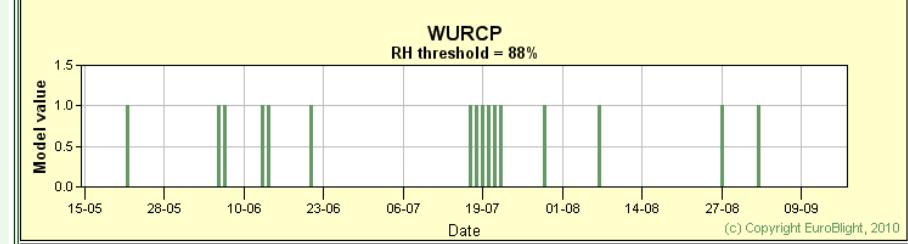
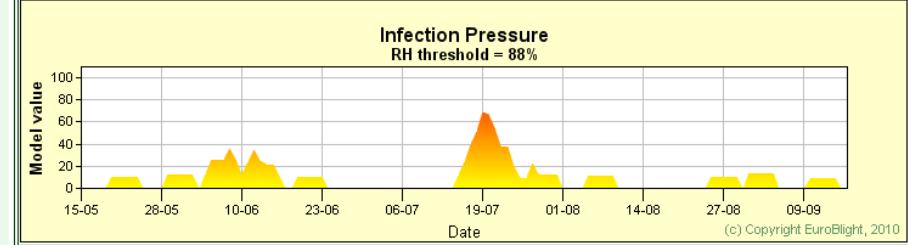
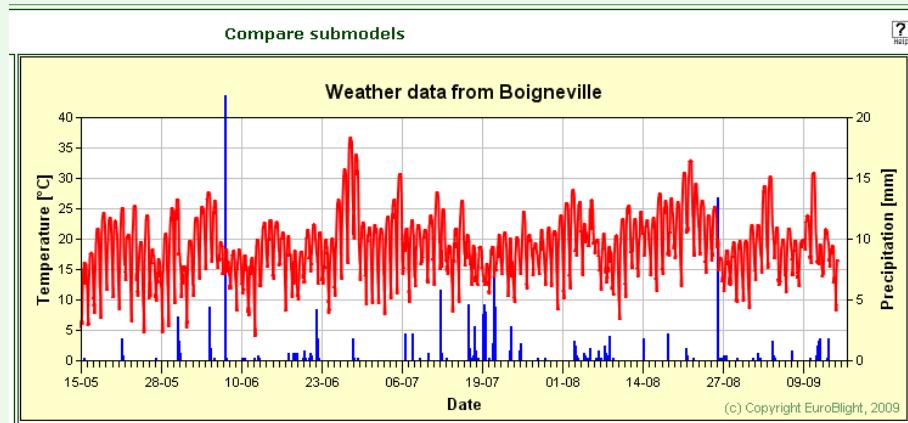
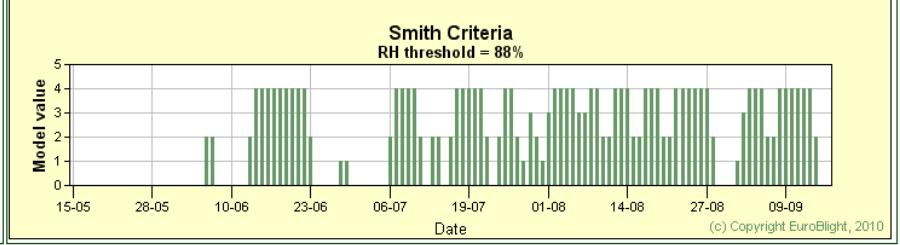
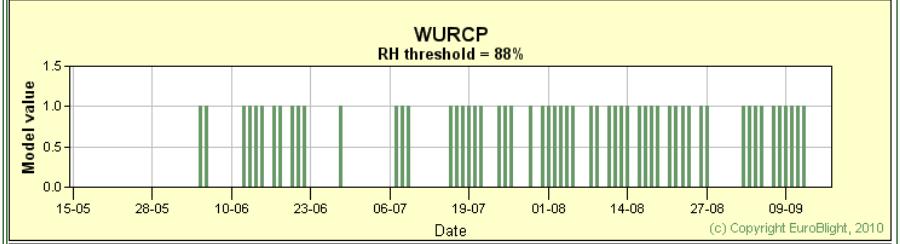
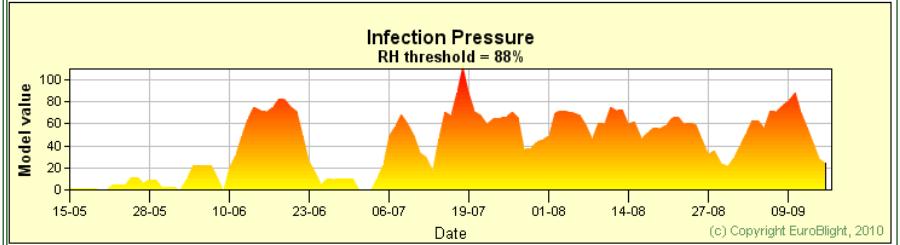
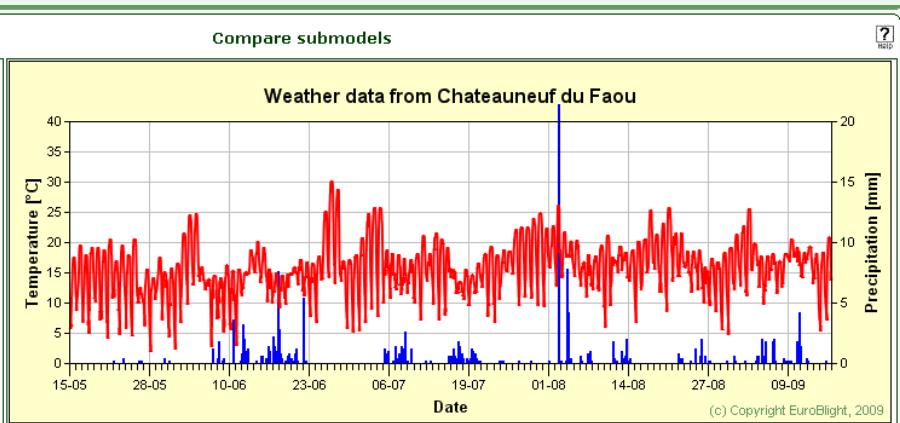
# Blight indicators - monthly



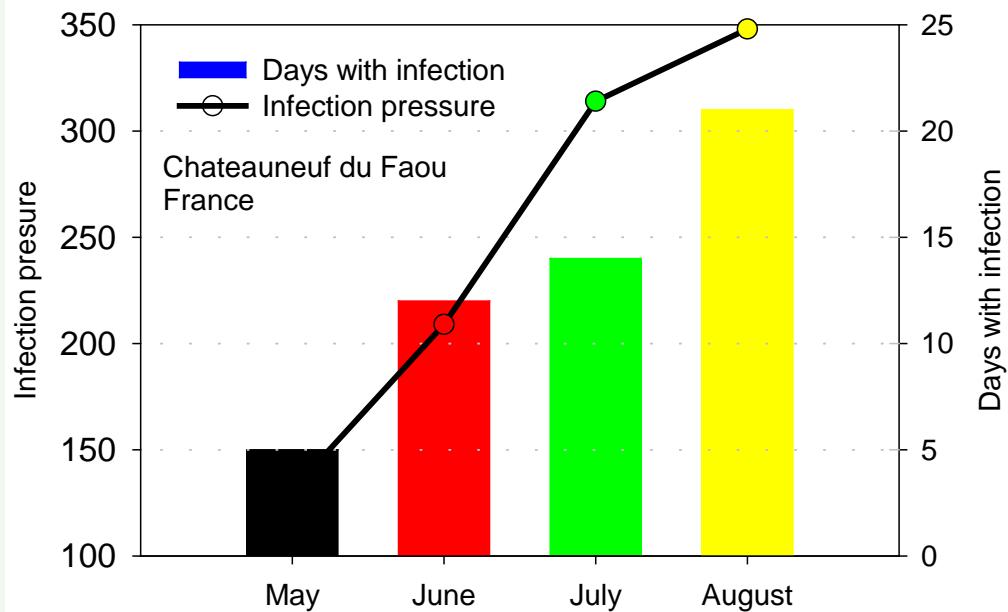
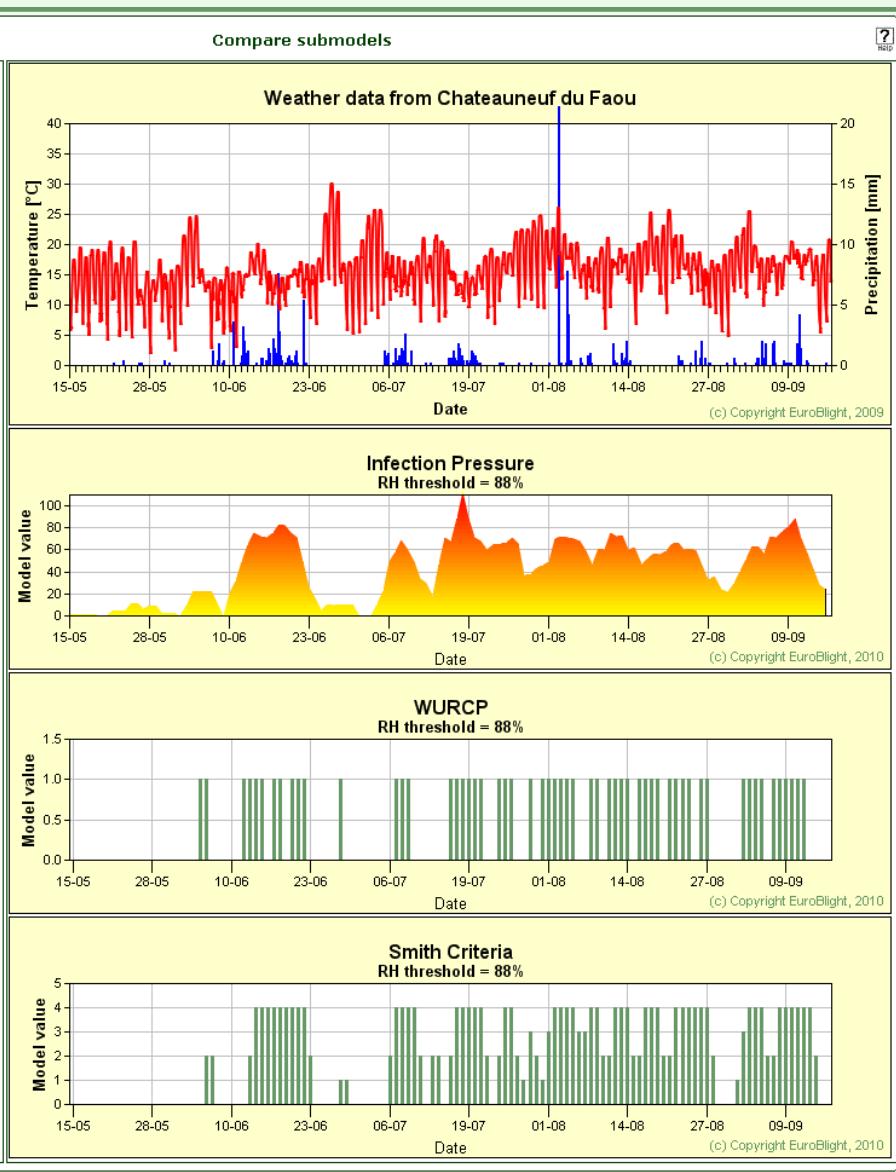
# Blight indicators - monthly



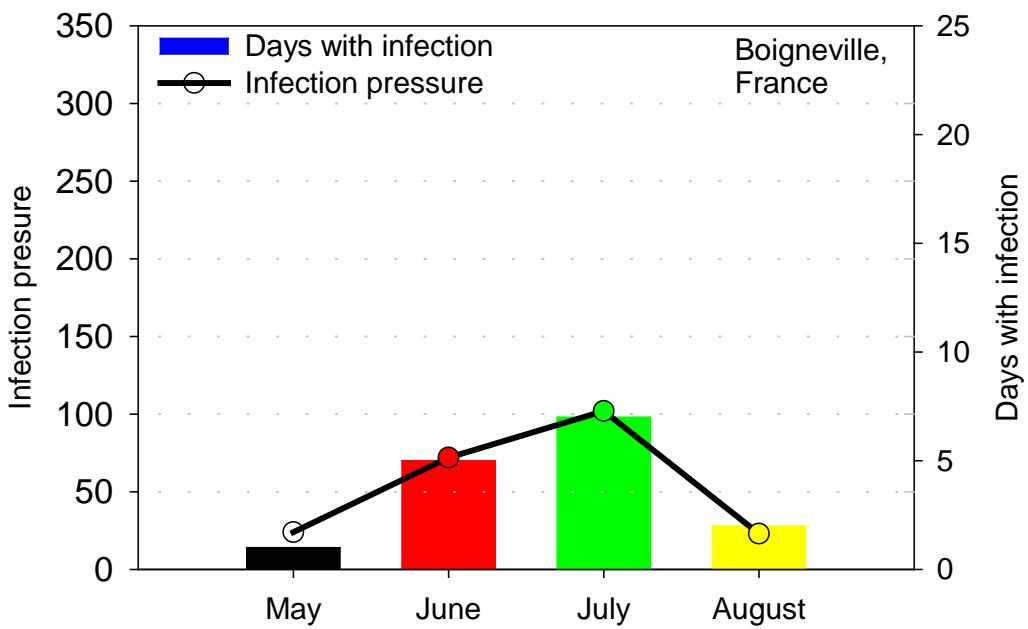
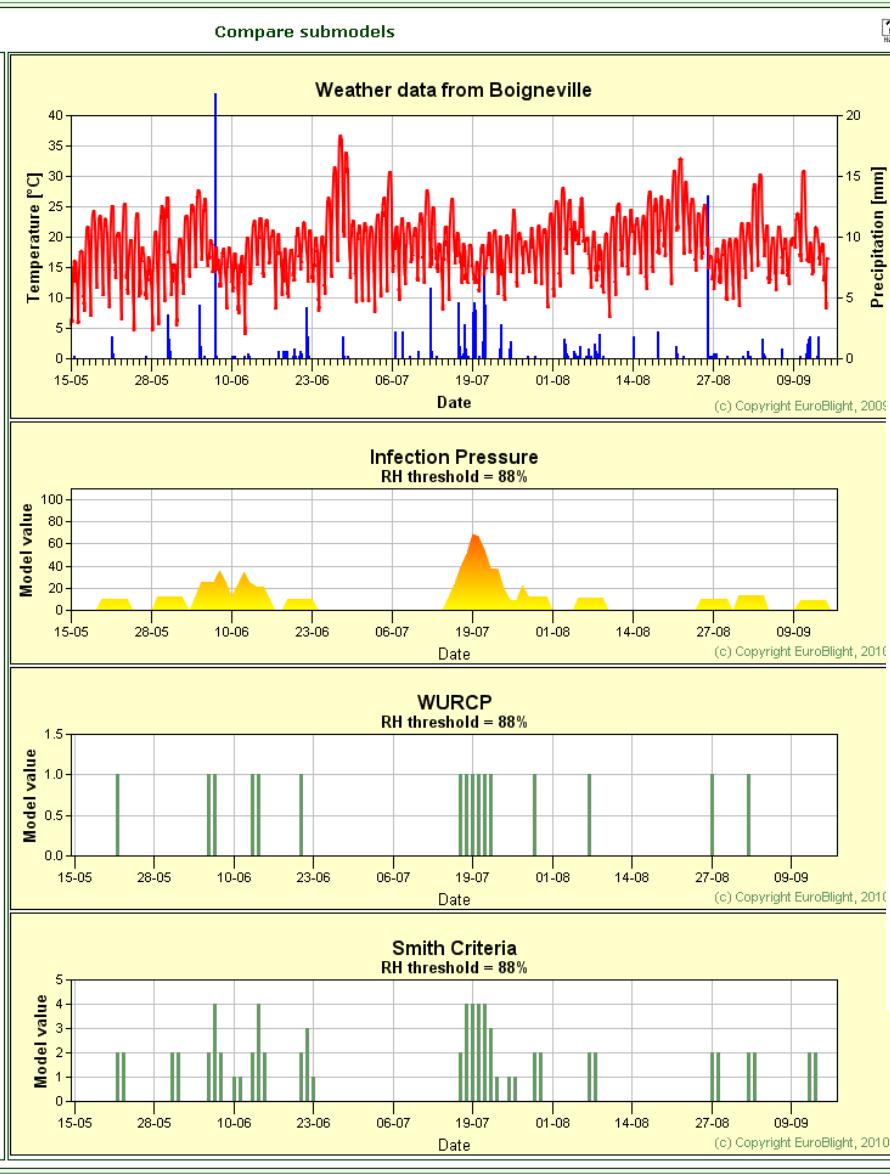
# Ås and Særheim - Norway



# Blight indicators - monthly

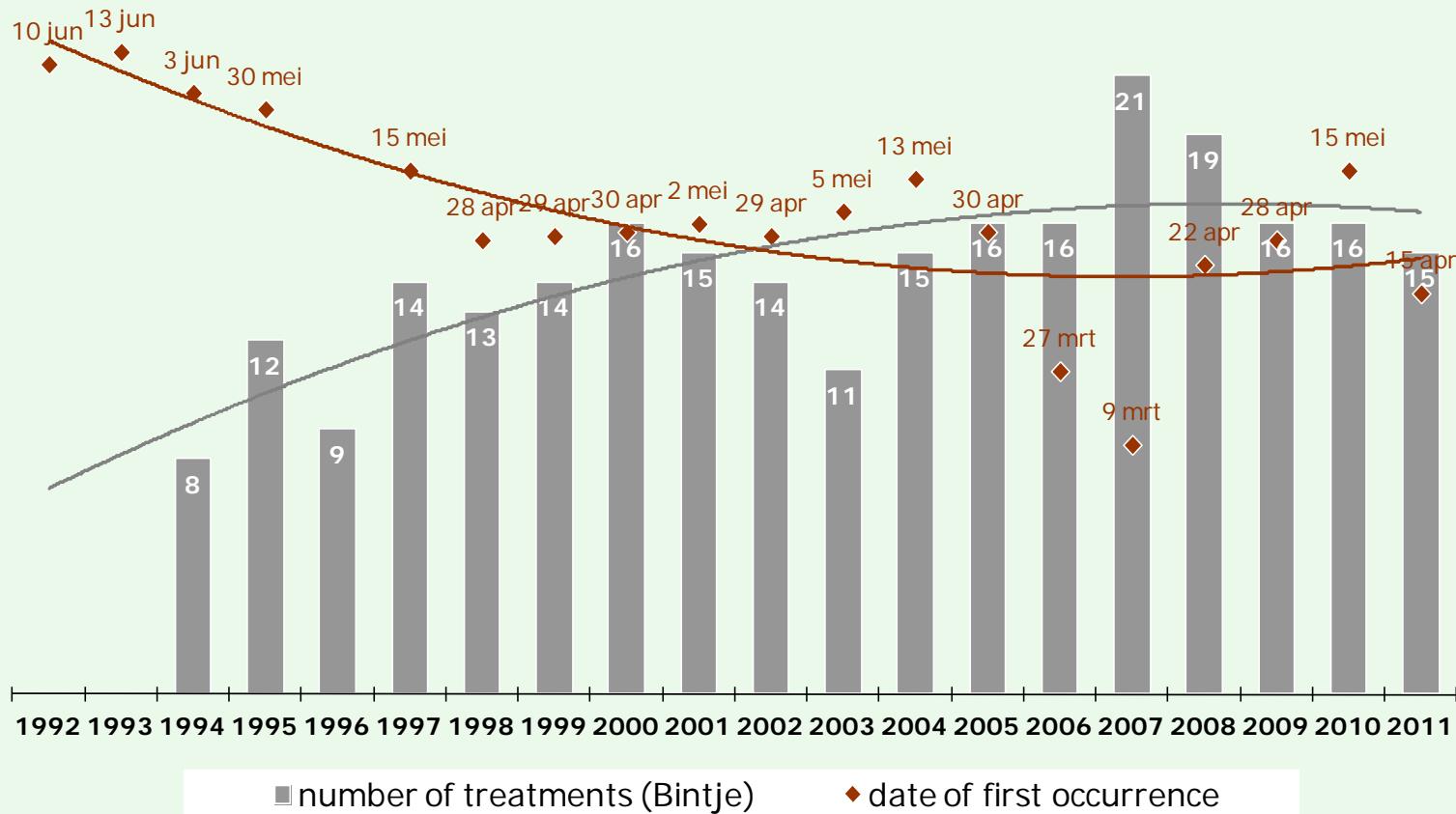


# Blight indicators - monthly

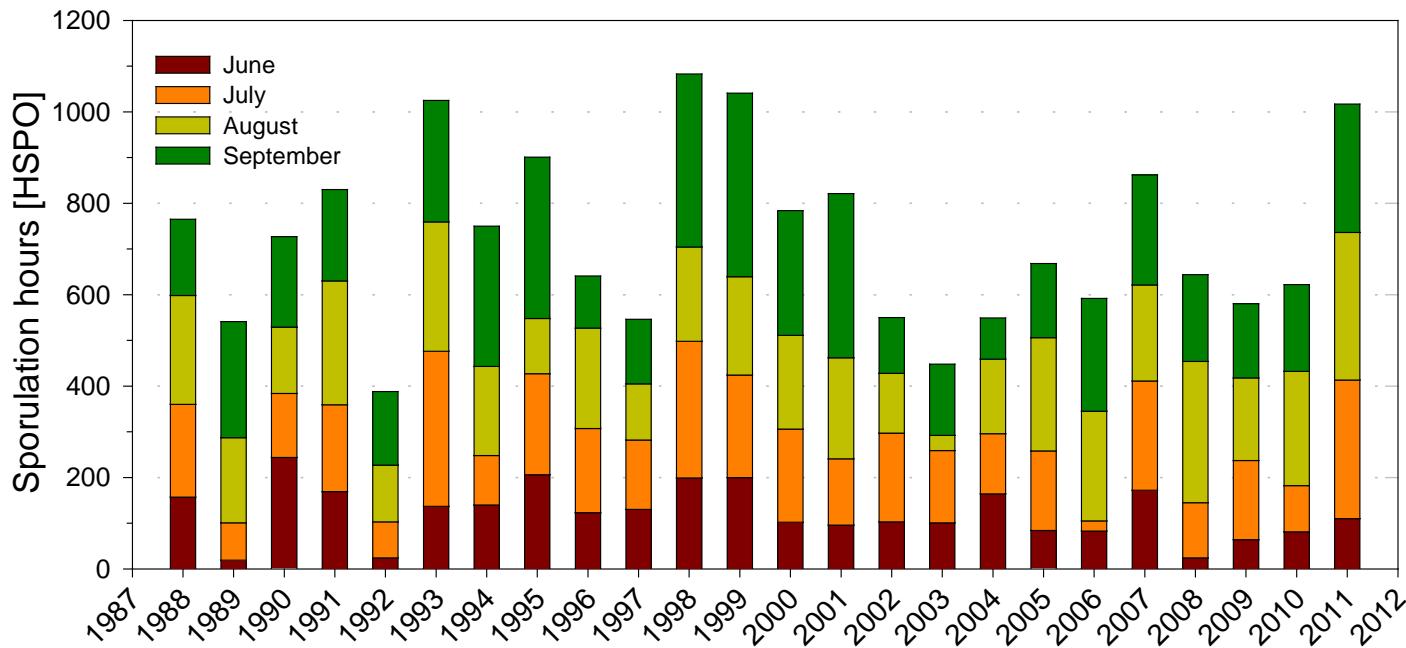


# Fungicide use – Belgium

Date of first occurrence | Number of advised treatments in Bintje  
based on observations and warning service PCA - seasons 1992 to 2011

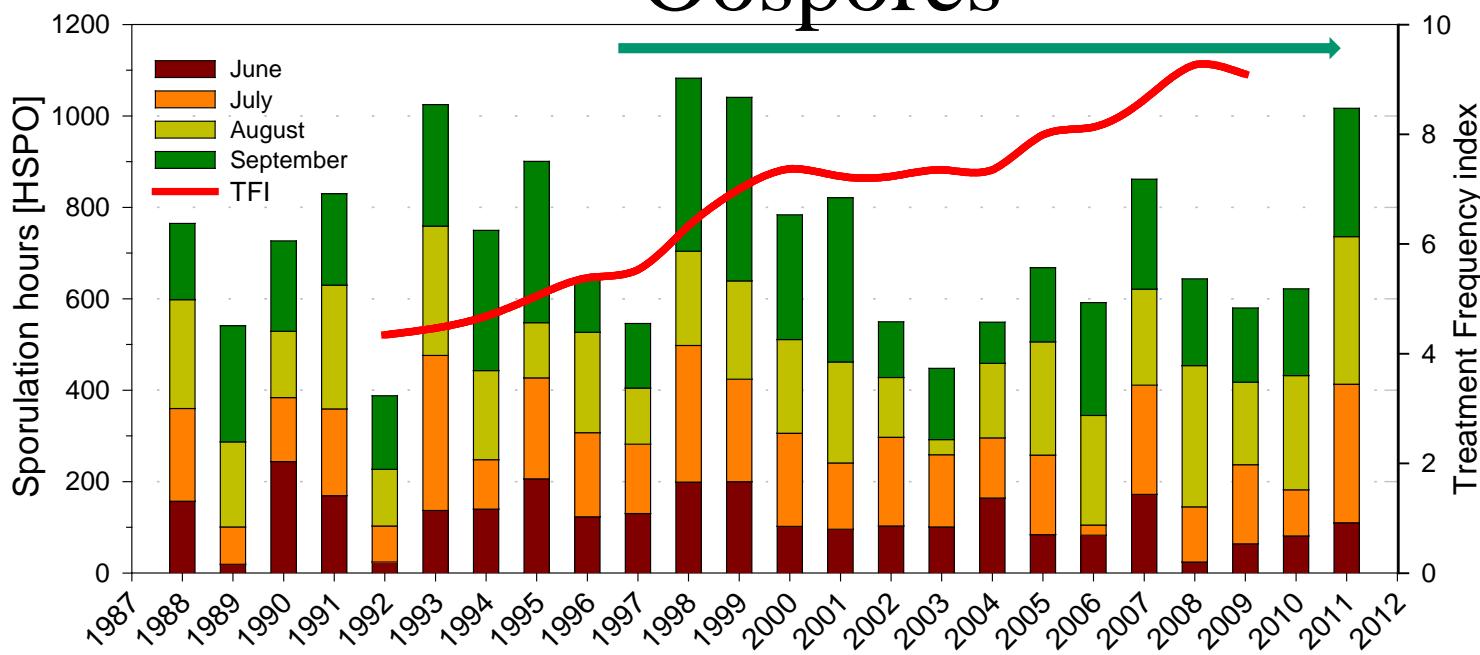


# Fungicide use – Denmark



# Fungicide use – Denmark

## Oospores



# *P. infestans* populations

Oospore mentioned as possible source of inoculum:  
Denmark, Sweden, Estonia, Poland

Ongoing *P.infestans* sampling for pop genetic characterisation  
Ireland and UK, Netherlands and Denmark

New aggressive strains  
Blue13 and Green33 -  
David Cooke and Van den Bosch

# Use of DSSs

Belgium	Warning based on Guntz-Divoux
Czech Republic	Negative prognosis
Denmark	Blight Management
UK	Blight-Watch and Plant Plus
Estonia	Jõgeva PBI web system
France	Mileos (MilPV + MildiLIS)
Germany	PhytophthoraModel Weihenstephan, ISIP
Netherlands	ProPhy and Plant Plus
N. Ireland	DARD Blight-Net
Norway	VIPS
Russia	Plant Plus, VNIIIF-3 and SimCast+VNIIIF-3
Sweden	(Plant Plus)
Switzerland	PhytoPRE+2000

# Country Profile Editors (2010-11)

<b>country</b>	<b>Name</b>
Belgium (Flanders)	Pieter Vanhaverbeke
Belgium (Wallonie)	Jean-Louis Rolot
Czech Republic	Ervin Hausvater
Denmark	Jens G. Hansen & Bent Nielsen
England/Wales	Faye Ritchie
Estonia	Mati Koppel
Finland	Asko Hannukkala
France	Ludovic Dubois & Catherine Chatot
Germany	Hans Hausladen & Benno Kleinhenz
<b>Hungary</b>	?
Ireland	Steven Kildea
Italy	Riccardo Bugiani
Latvia	Linda Bucena
Lithuania	Antanas Ronis/Guntis Gulbis
Netherlands	Kees Vogelar
Northern Ireland	Louise Cooke
Norway	Arne Hermansen & Ragnhild Nærstad
Poland	Jozefa Kapsa
<b>Portugal</b>	?
<b>Rumania</b>	?
Russia	Alexey Filippov
Scotland	Ruairidh Bain & Alison Lees
Slovakia	Peter Vrabček
<b>Spain</b>	?
Sweden	Bjorn Andersson
Switzerland	Tomke Musa

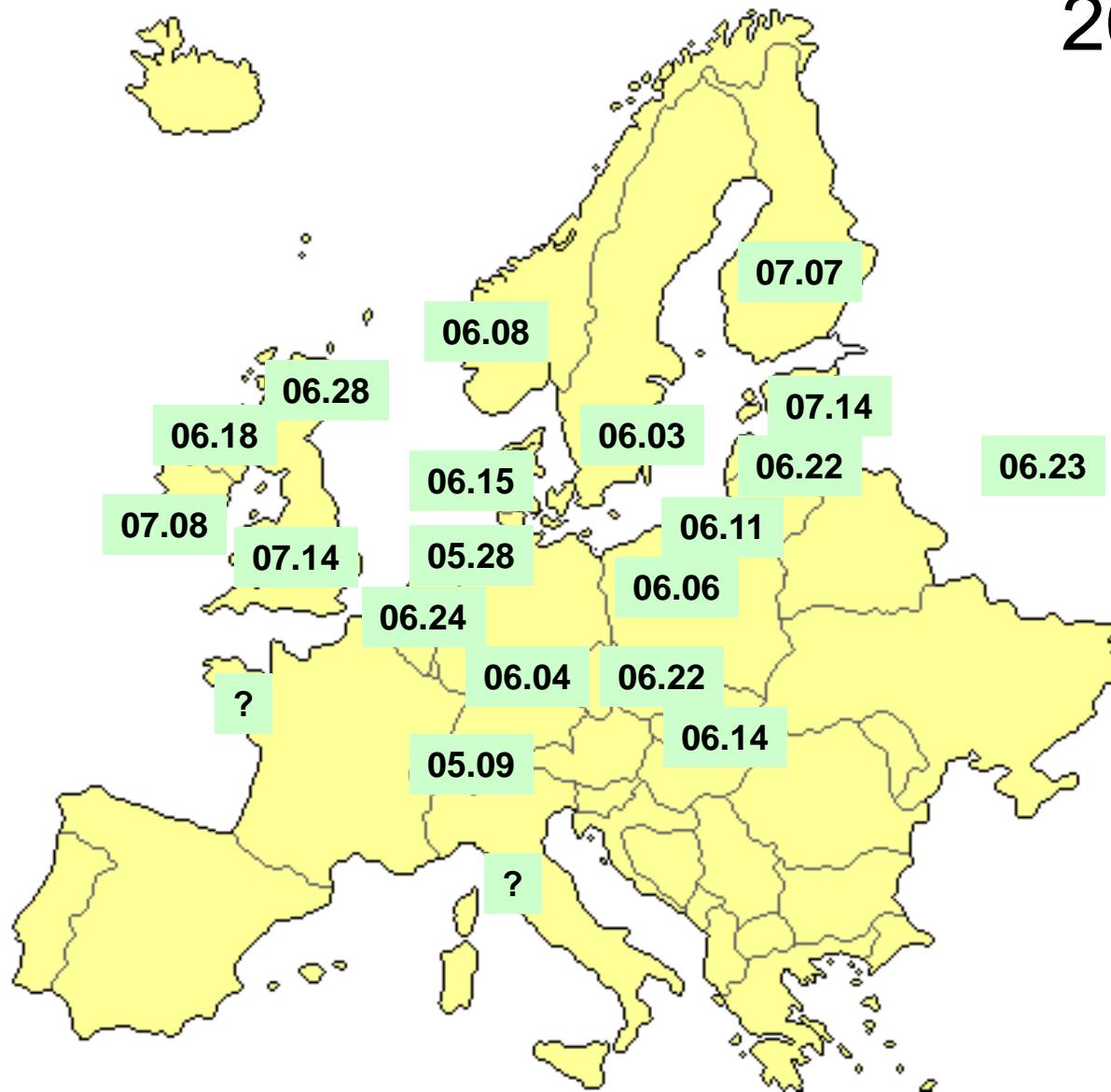
**Thank you for  
information!**

**Tank you for your attention !  
And thanks to all country editors**

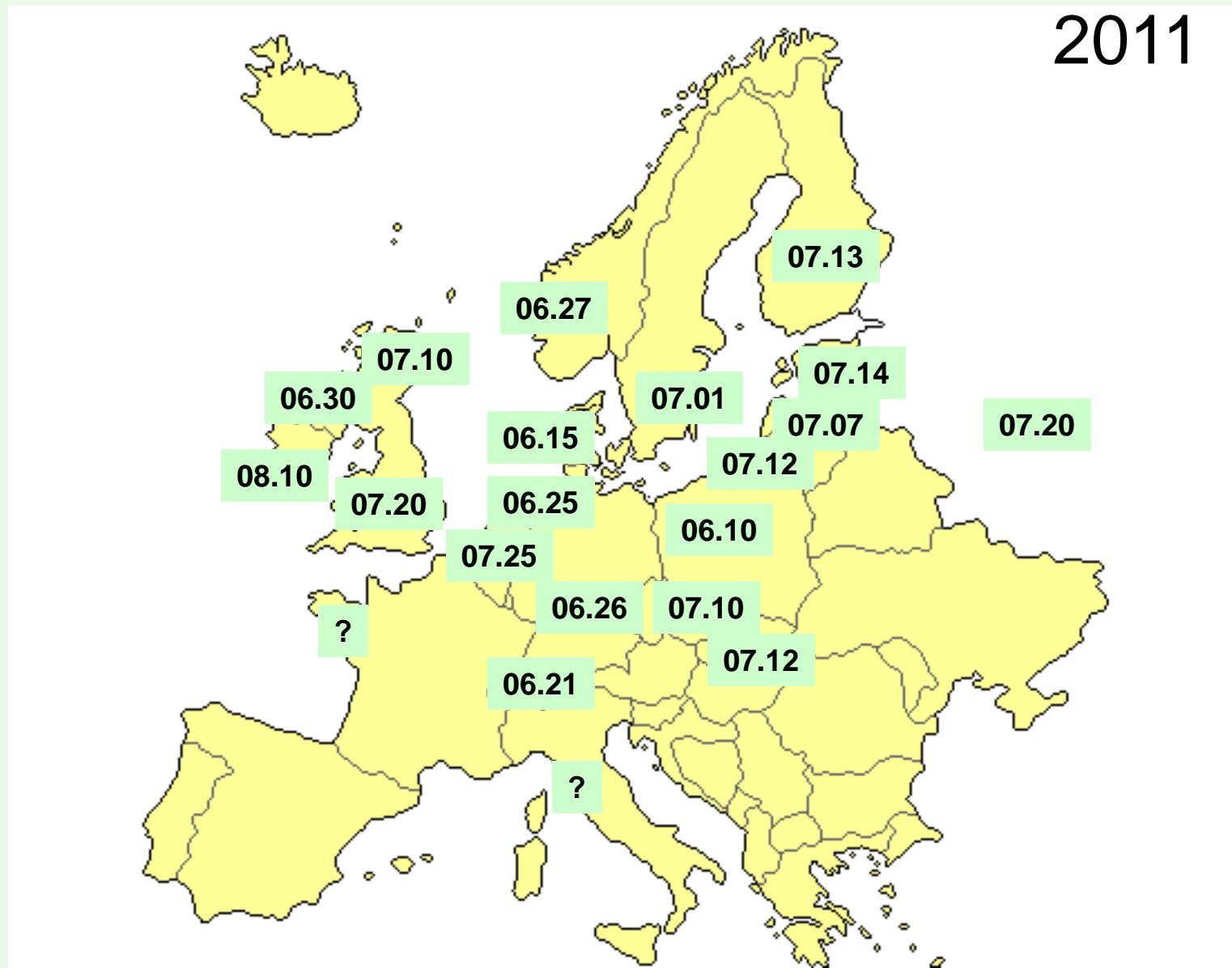


# First observation of late blight in covered or very early planted potatoes

2011



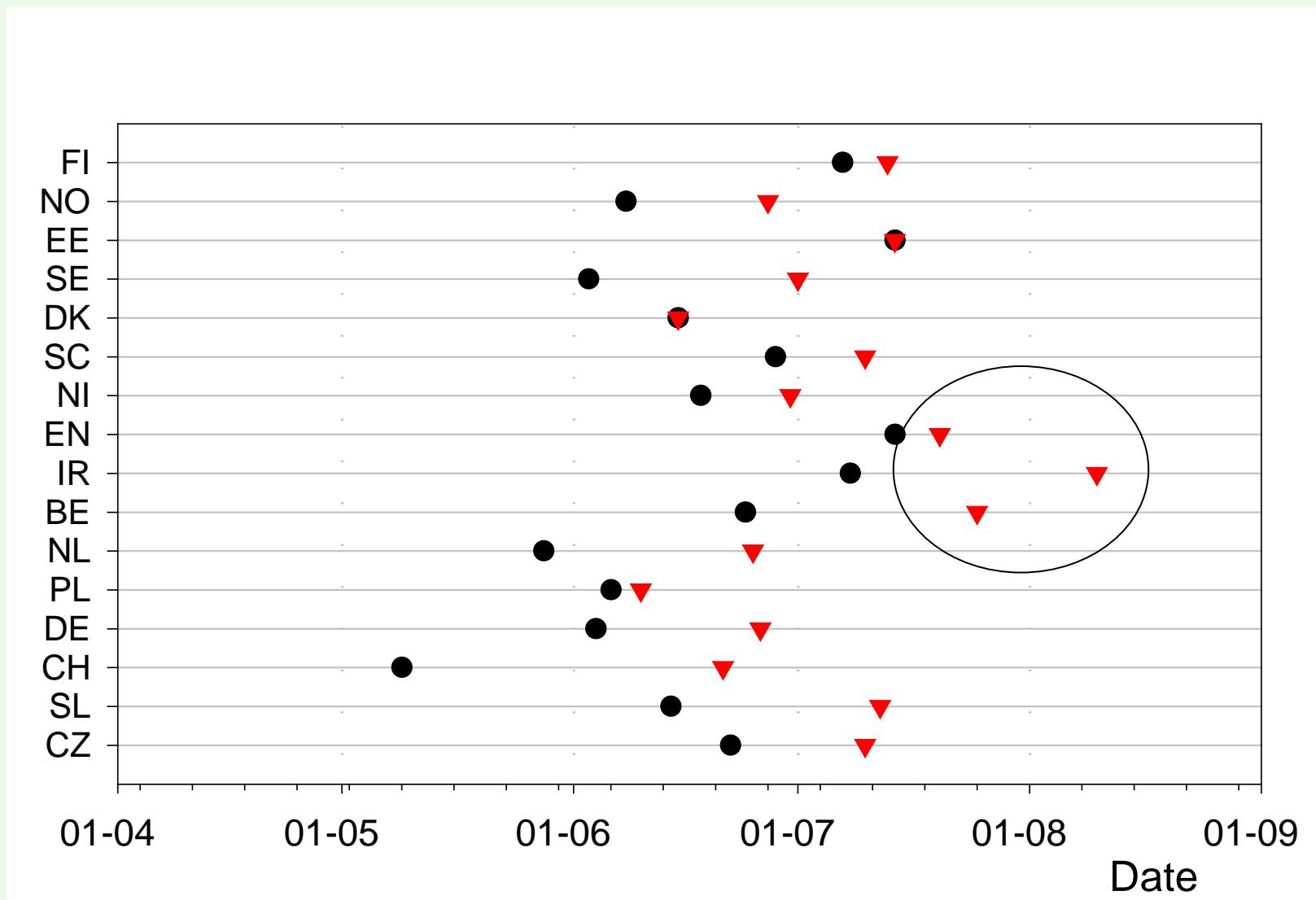
# Date when first infections were reported in more than 5 conventional, normally planted potato fields



# First infections, 2011

- = Covered potatoes, dumps, oospores

 = attacks in more than 5 conventional fields



# Late Blight Country Reports Objective

## **General objective:**

- To provide an overview of the late blight seasons in Europe
- Support of specific surveys (i.e. EucaBlight results),
- Support the implementation of Directive 2009/128/EC on the sustainable use of pesticides (October 2009)

## **Specific objective:**

- Summary presentation at EuroBlight workshops.
- Report in the EuroBlight workshop proceedings