



Epidemics and control of late blight, 2007 and 2008 in European countries

Jens Grønbech Hansen & Huub Schepers



Late Blight Country Reports

General objective:

To provide an overview of the late blight season in Europe for the support of specific surveys (i.e. Eucablight results), scientific studies and scenario analysis.

Specific objective

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

Country Profile Editors (2007 and 2008)

country	Name	
Austria	Gottfried Besenhofer	
Belgium (Flanders)	Pieter Vanhaverbeke	
Belgium (Wallonie)	Jean-Louis Rolot	
Czech Republic	Ervin Hausvater	
Denmark	Jens G. Hansen	
England/Wales	Faye Ritchie & Alison Lees	
Estonia	Mati Koppel	
Finland	Asko Hannukkala	
France	Ludovic Dubois	
Germany	Hans Hausladen	
Hungary	Zsolt Polgar	
Ireland	Leslie Dowley	
Italy	Riccardo Bugiani	
Latvia	Linda Bucena	
Lithuania	Antanas Ronis	
Netherlands	Wim Nugteren	
Northern Ireland	Louise Cooke	
Norway	Arne Hermansen	
Poland	Jozefa Kapsa & Renate Lebecke	
Portugal	?	?
Rumania	?	?
Russia	Alexey	Filippov
Scotland	Ruairidh	Bain
Slovakia	Jan	Heldak
Spain	?	?
Sweden	Bjorn	Andersson
Switzerland	Tomke	Musa
Turkey	Emel	Cakir

**Thank you for
information!**

Late blight country reports

Euroblight Country Profile Data

- Ø SUMMARY
- Ø Early outbreaks of potato late blight
- Ø Weather conditions and late blight development
- Ø Use of fungicides and control strategies
- Ø Organic potatoes
- Ø Tuber blight
- Ø *Alternaria* ssp
- Ø Characteristics of *Phytophthora infestans*
- Ø Use of cultivars
- Ø Use of DSS

+

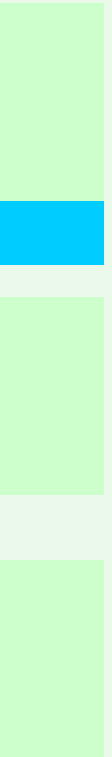
Eucabligh database

- Ø Frequency of mating type A2
- Ø Virulence Pathotypes

Yearly Country Reports

Summary Report

Weather report



Late blight country reports

Entering information

EuroBlight - Microsoft Internet Explorer

Address <http://www.euroblight.net/EuroBlight.asp?TryLogin=yes>

EuroBlight
EU.NET.ICP & EUCABLIGHT
Potato Late Blight Network For Europe


26 October 2008
Welcome Ruaridh Bain

PROJECT INFORMATION

- News
- Events
- About EuroBlight
- Participating institutions
- People
- Links
- Related projects

WORKSHOP - Hamar, 2008

- 1st Announcement
- Scientific programme
- Previous workshops


The fountain of Neptune in the centre of Bologna

Late Blight country report by Ruaridh Bain

Select country and year: Publish [Help](#)

Index: [Summary](#) | [First appearance](#) | [Weather](#) | [Fungicide](#) | [Organic](#) | [Tuber blight](#) | [Alternaria](#) | [Pathogen](#) | [Cultivar](#)

Summary [Back to top](#)

Write a short summary (max 200 words) about late blight development, fungicide use and control of late blight in the country and year selected

2008 was less favourable for foliar blight development than the exceptional 2007. There were fewer Smith Periods early in the growing season than in 2007. The average across several sites in May, June, July, August and September were 1, 0, 5, 4, 1. After the very high pressure and widespread foliar blight of 2007 growers were very well prepared for the blight threat. Most agronomists and advisors were recommending a maximum spray interval of 7 days unless there were extended periods of low risk. This was

Early outbreaks of potato late blight [Back to top](#)

Select the date for first observation of late blight in covered or very early planted potatoes

RESTRICTED INFORMATION

- Subgroups
- Milestones
- Deliverables
- Tasks
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- My tasks
- My documents**
- Upload document
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RESULTS


- Fungicide comparison
- Fungicide comparison (New)
- Protocols
- Country report
- Summary report
- Weather report

DATA COLLECTION

- Country report

DATABASES

- Host
- Pathogen



Web site provided by [University of Aarhus, Faculty of Agricultural Sciences, INFO Research Group](#). Report technical problems to webmaster: Poul.Lassen@agrsci.dk. Optimized for screen size 1024x768

Late blight country reports


Merge with Eucablight database

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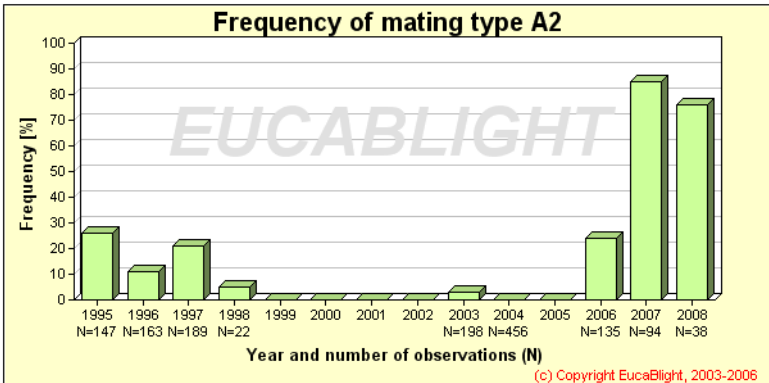


The fountain of Neptune in the centre of Bologna

Nil return

Characteristics of *Phytophthora infestans*

Frequency of mating type A2



Frequency of mating type A2

Year and number of observations (N)

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Logout

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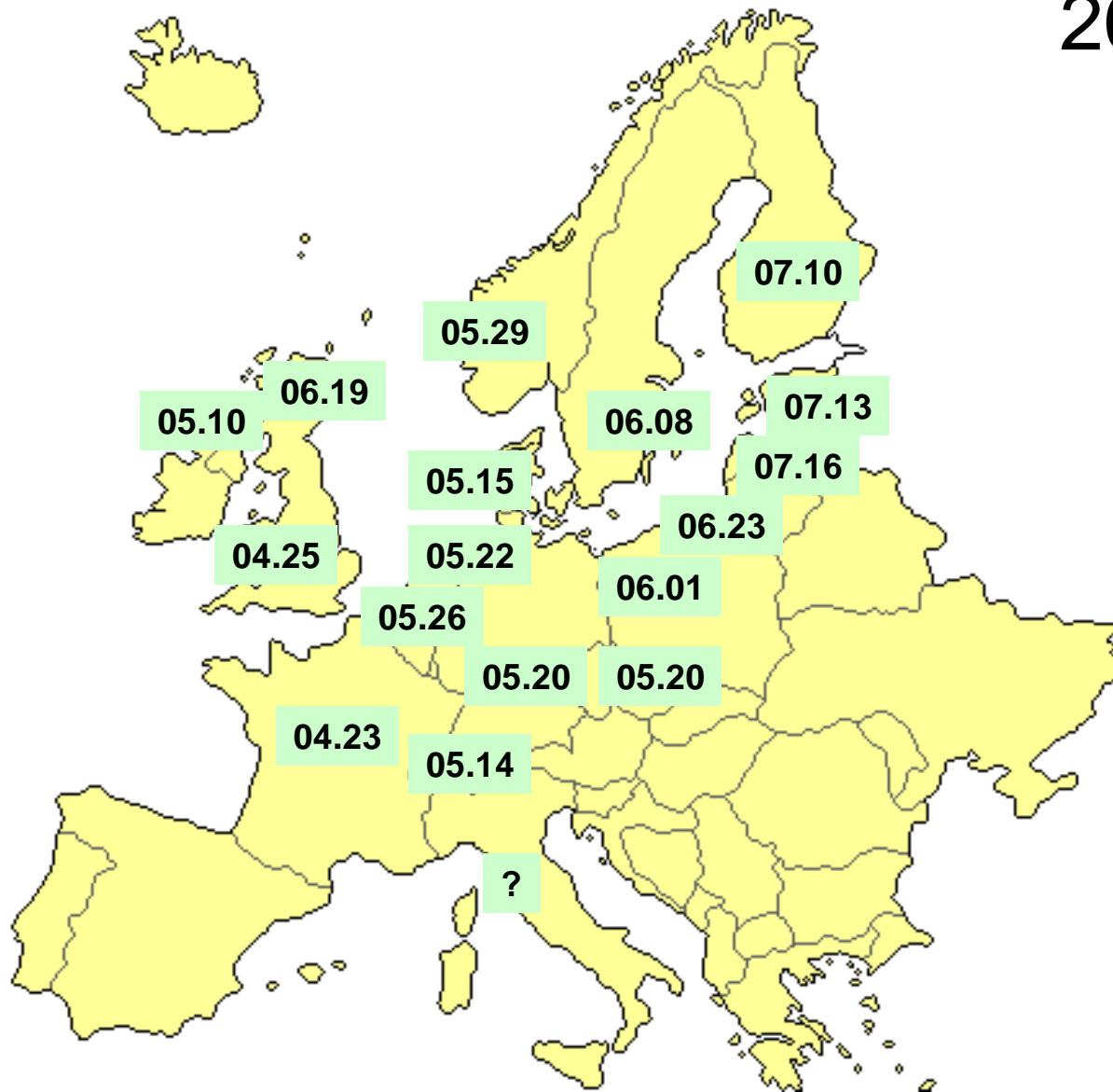
DATABASES

- Host
- Pathogen



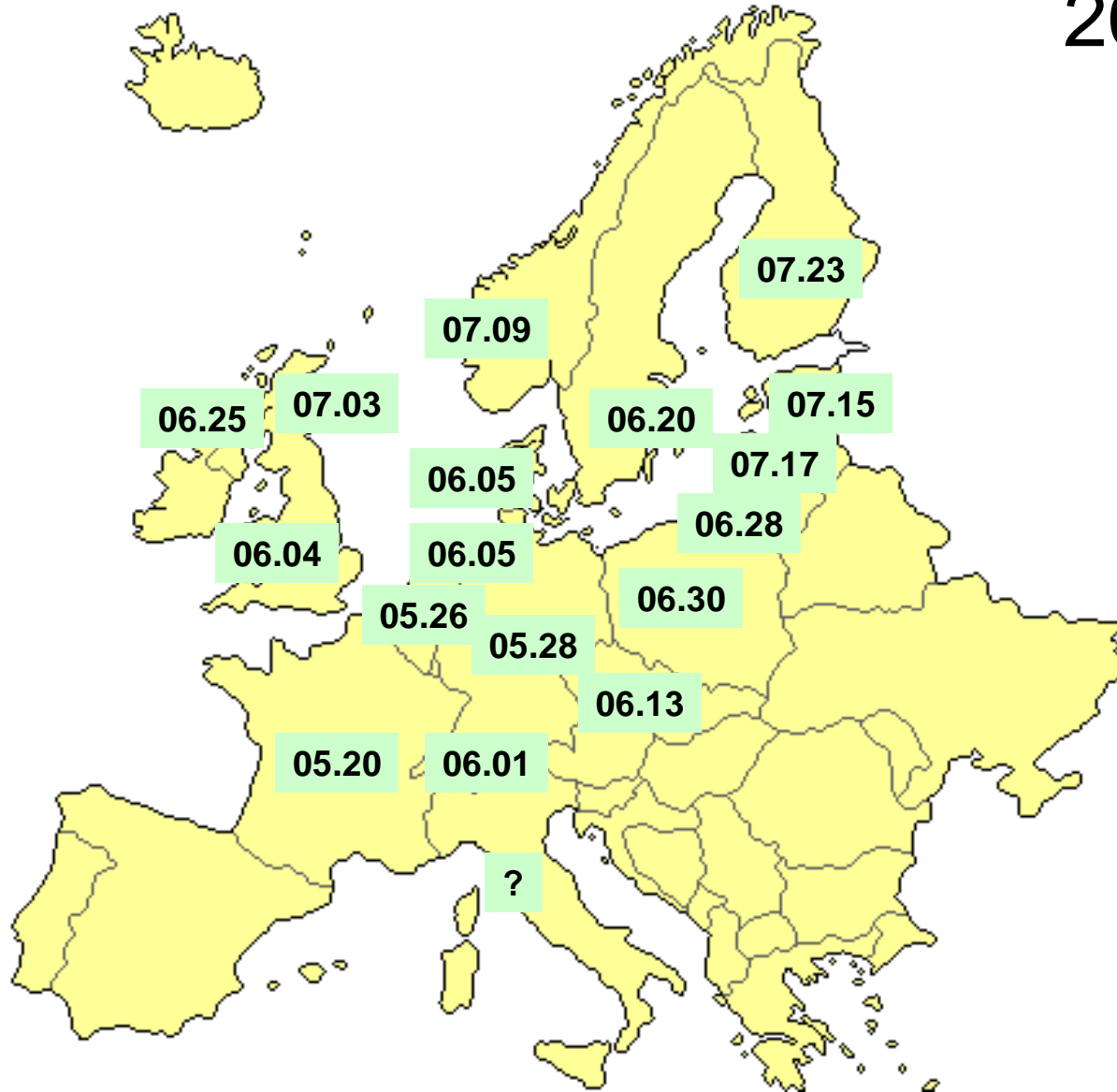
First observation of late blight in covered or very early planted potatoes

2007



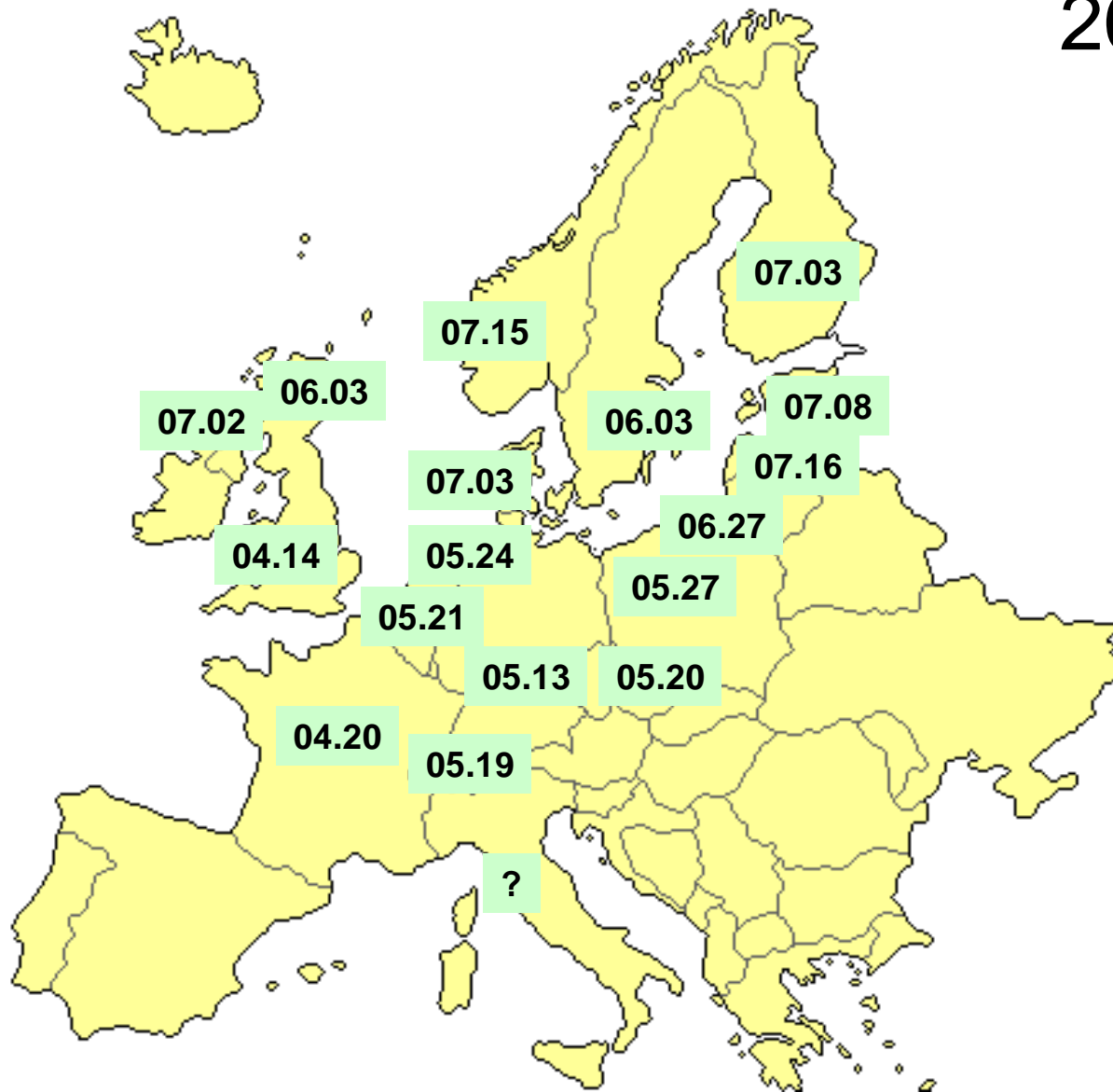
Date when first infections were reported in more than 5 conventional, normally planted potato fields

2007



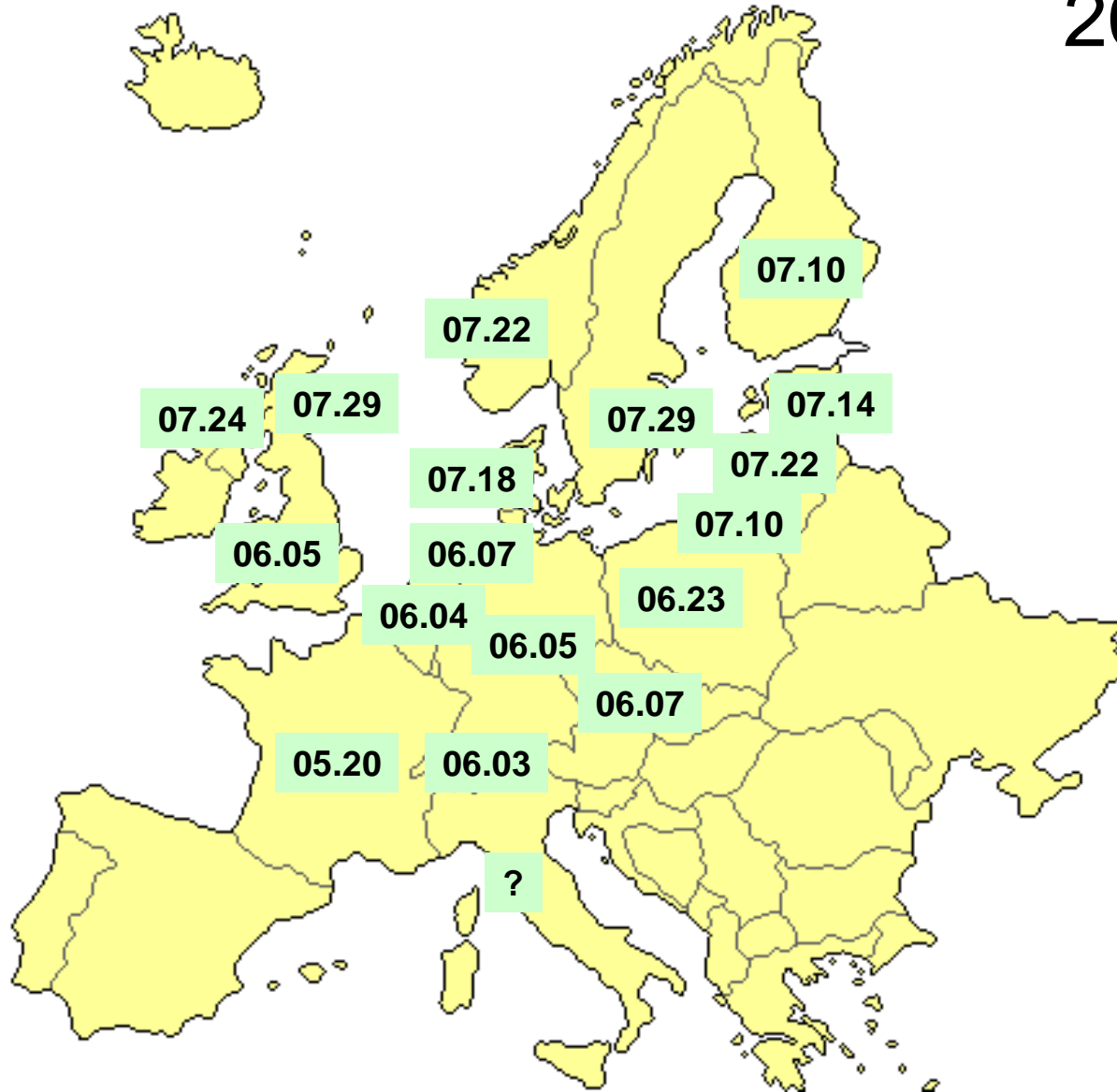
First observation of late blight in covered or very early planted potatoes

2008



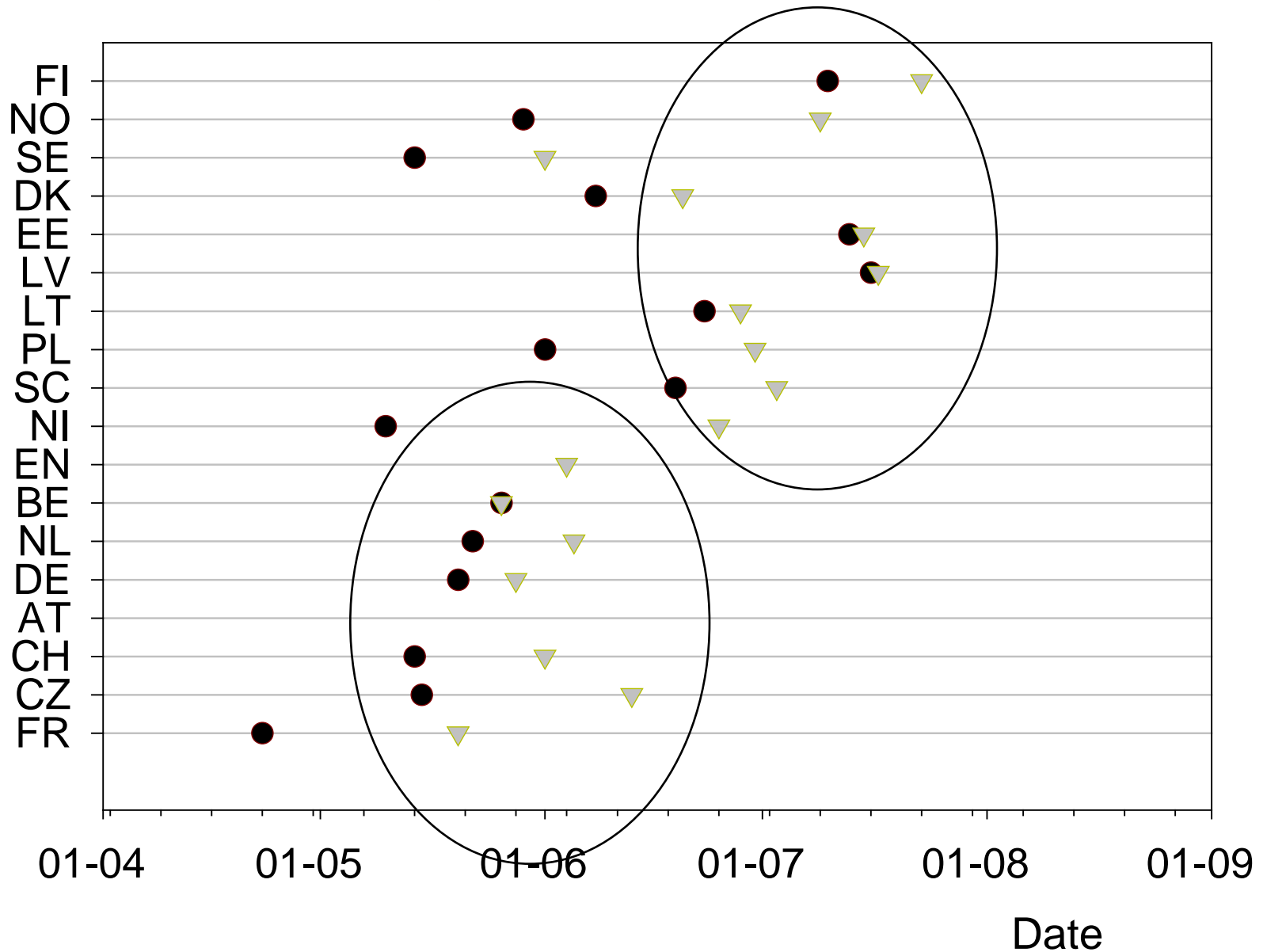
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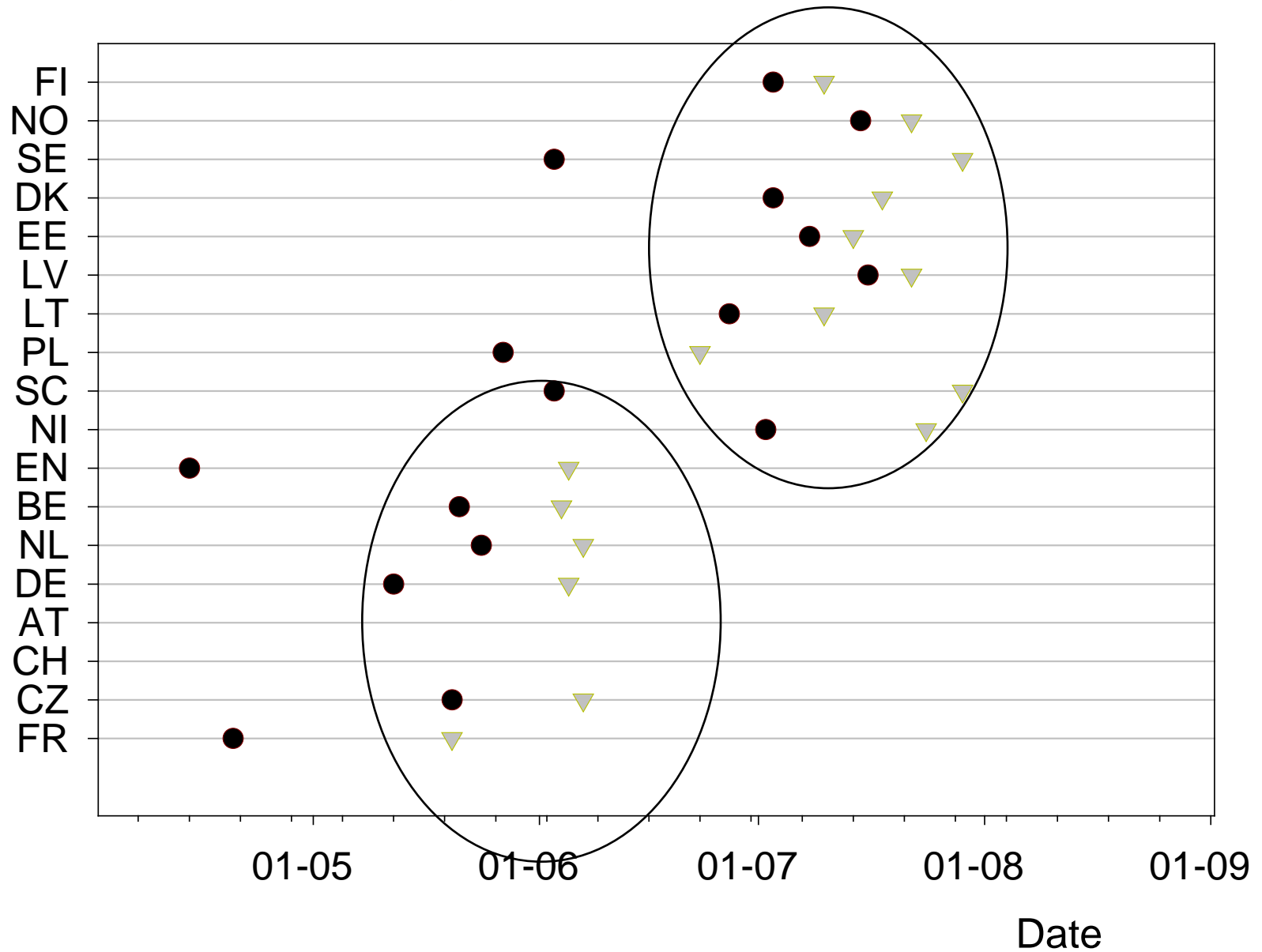
First infections, 2007

● = Early potatoes ▼ = attacks in several conventional potato fields

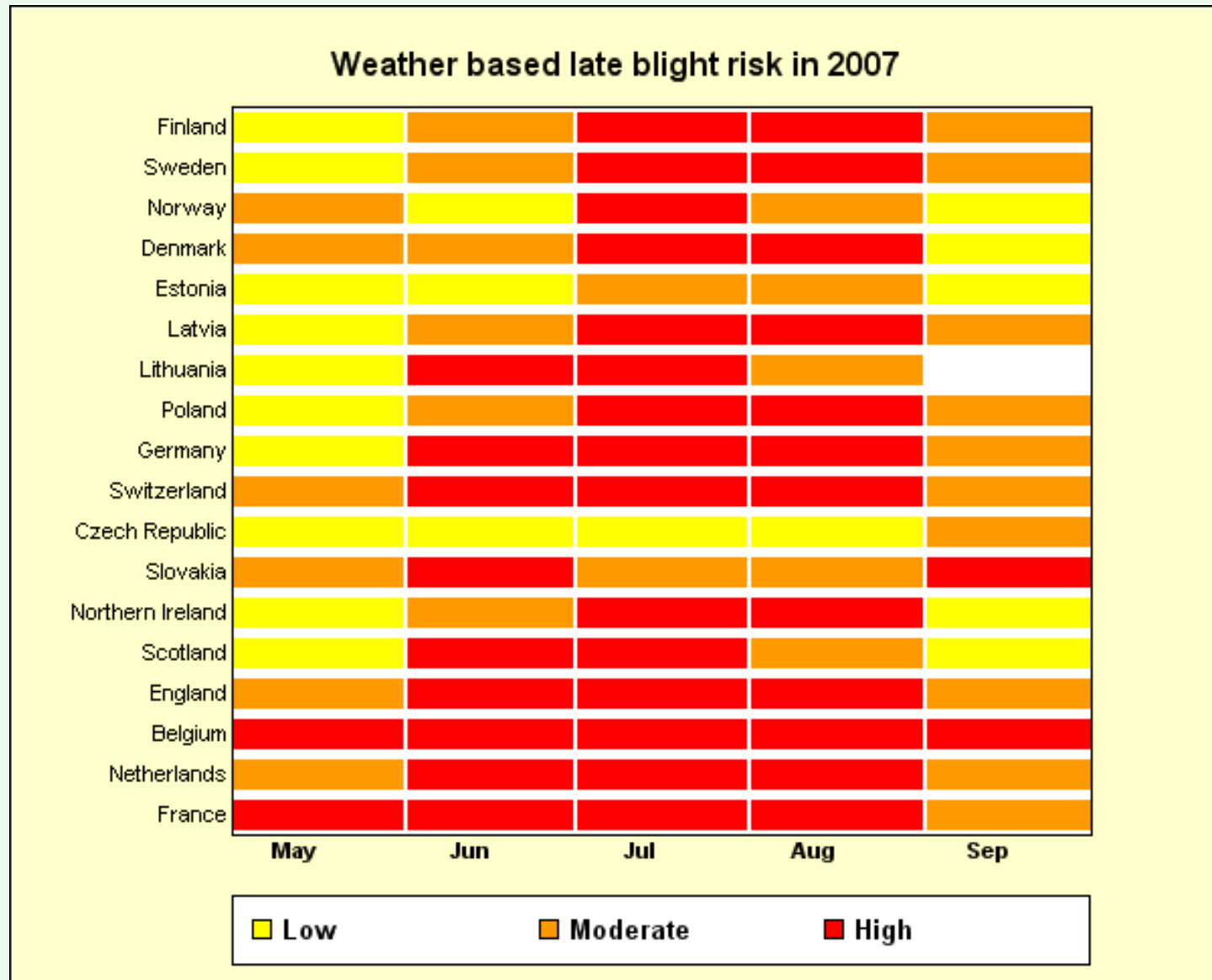


First infections, 2008

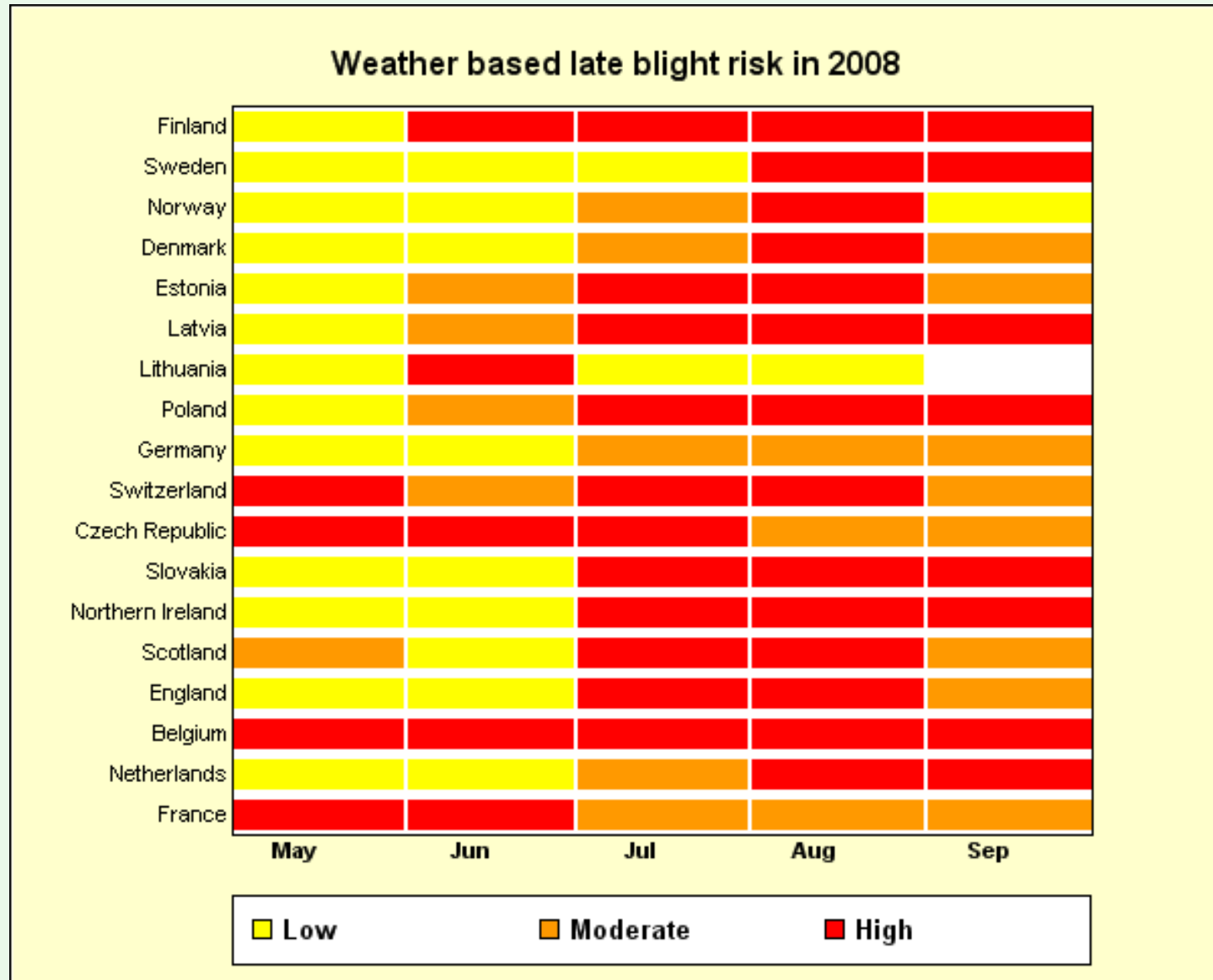
● = Early potatoes ▼ = attacks in several conventional potato fields



Weather based late blight risk, 2007

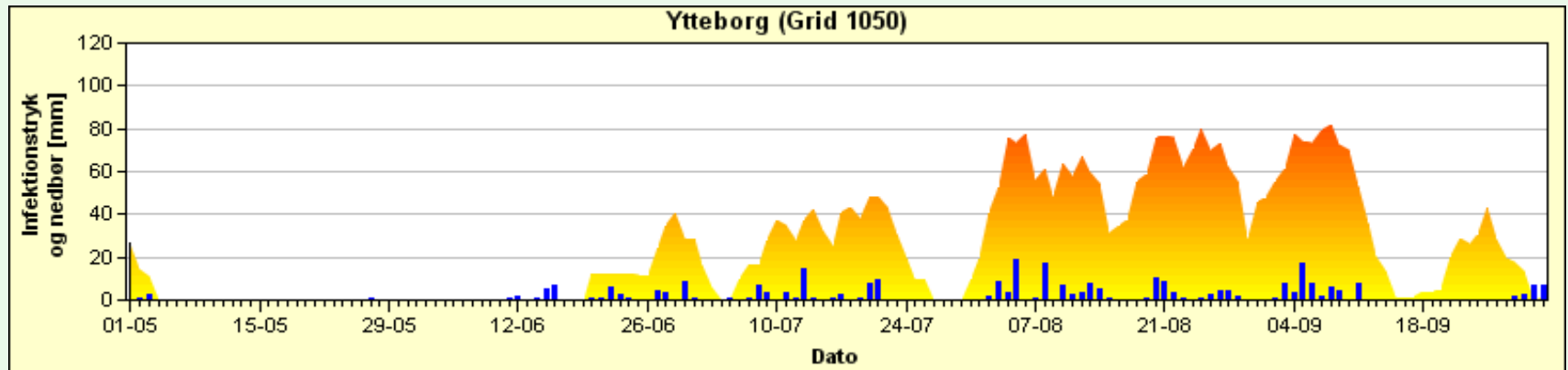


Weather based late blight risk, 2008



Weather based late blight risk, 2008

Denmark



Fungicide use, 2007

Fungicide

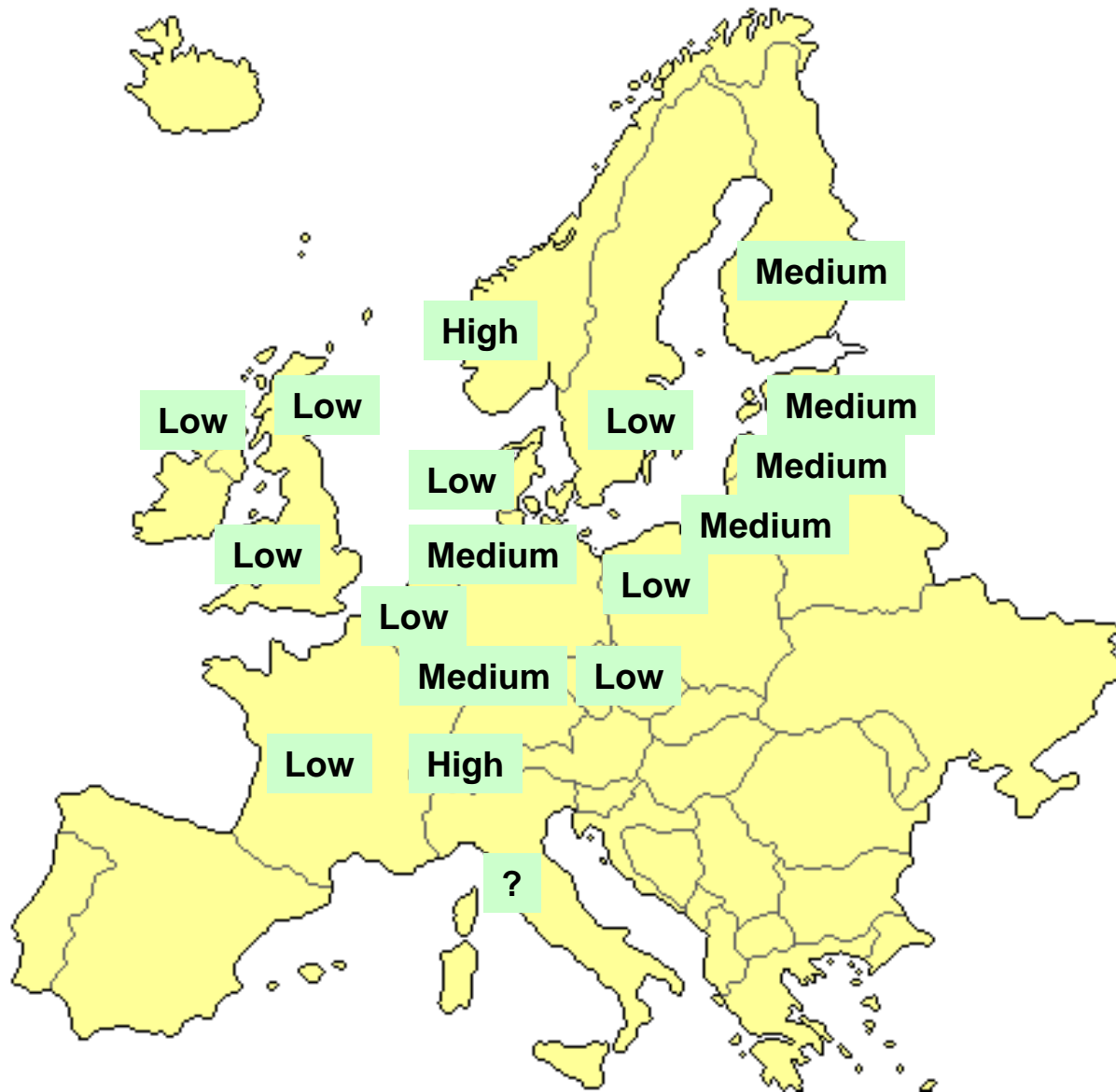
Country	Number of fungicide applications used in ware potatoes			Number of fungicide applications used in all potatoes		
	min	max	mean	min	max	mean
Belgium	18	25	21	10	25	18
Czech Republic	2	7	5		5	4
Denmark	5	10	7.5	5	16	9
England						
Estonia		6	2.5		6	2.5
Finland	3	7	5	2	7	4
Germany	4	18		4	18	
Ireland						
Latvia	2	5	3	2	4	3
Lithuania	4	10	5	1	4	2.5
Netherlands	14	21	17	12	21	15
Northern Ireland	6	15	10	5	13	9
Norway	2	8	6	2	8	6
Poland	3	17	5	1	17	3
Russian Federation		9	3	1	11	3
Scotland						
Sweden	5	15	8	5	10	6
Switzerland						
Turkey						

Fungicide use, 2008

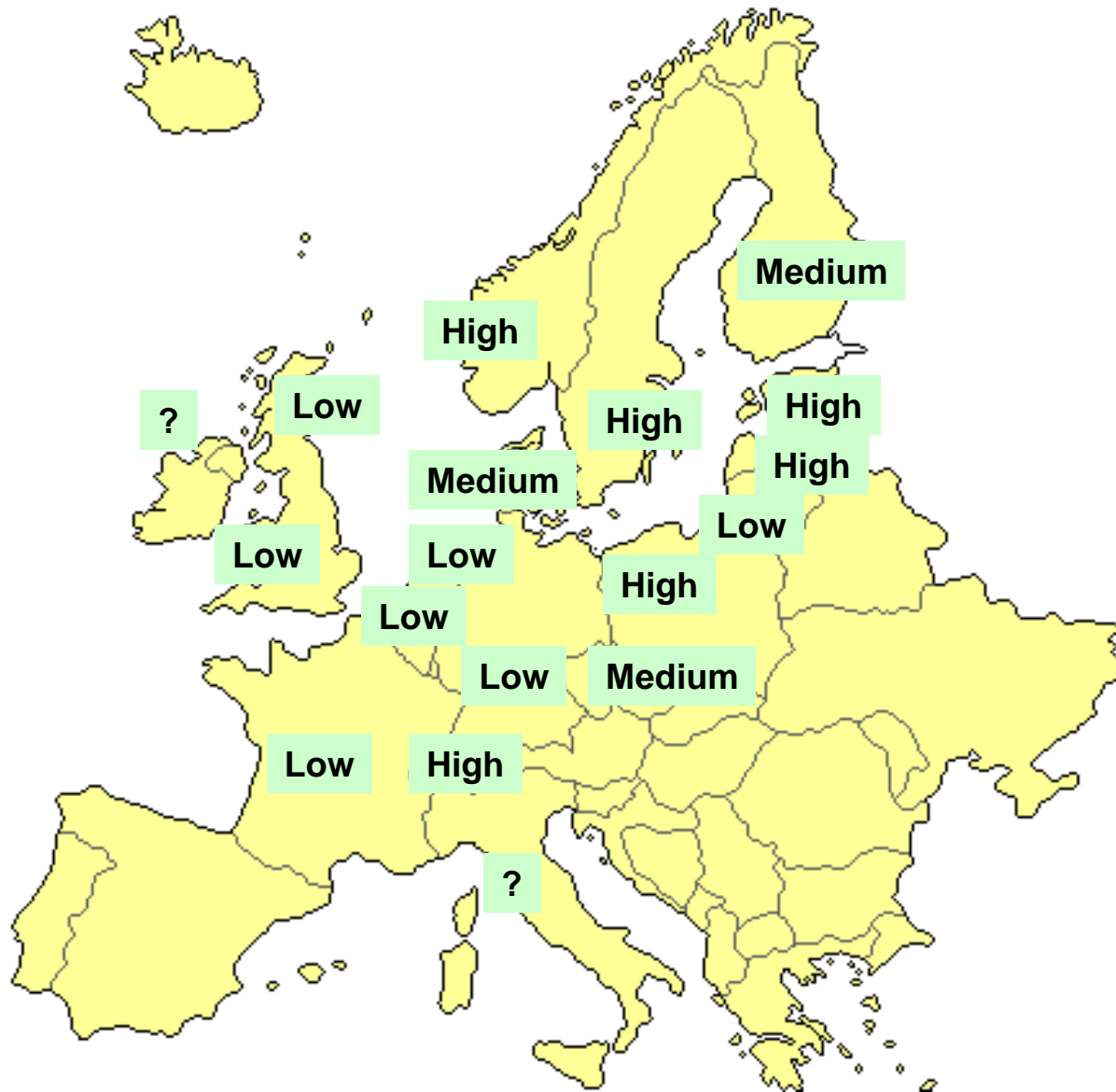
Fungicide

Country	Number of fungicide applications used in ware potatoes			Number of fungicide applications used in all potatoes		
	min	max	mean	min	max	mean
Belgium	17	22	19	10	22	15
Czech Republic	5	12	7	2	8	6
Denmark	4	9	7	4	14	8.5
England	10	12	11	10	12	11
Estonia	3	9	5	3	9	5
Finland	3	9	5	4	9	6
France	14	18	15	8	20	15
Germany	4	15	7	4	15	7
Latvia	3	5	4	1	5	3
Lithuania	4	10	5	1	4	2.5
Netherlands	8	18	14	6	18	13
Northern Ireland	5	13	9	5	13	9
Norway	2	8	5.5	2	8	5.5
Poland	-9	-9	-9	-9	-9	-9
Russian Federation	-9	-9	-9	1	10	3
Scotland	-9	-9	-9	-9	-9	-9
Slovakia	4	8	5	-9	-9	-9
Sweden	4	15	7.5	-9	-9	-9
Switzerland	-9	-9	8	-9	-9	-9

Problems with tuber blight, 2007 (compared to normal)

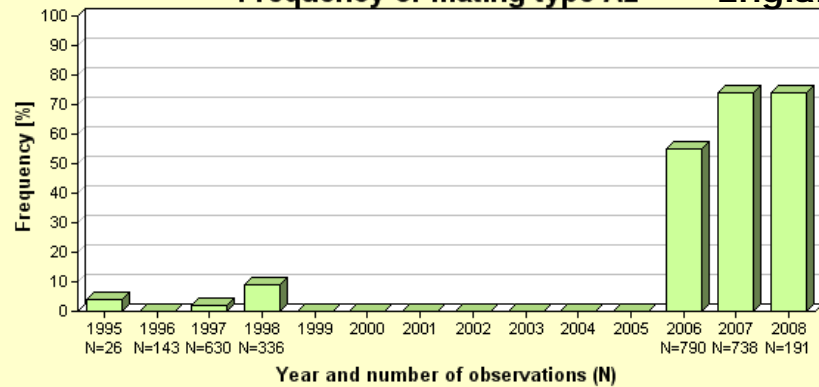


Problems with tuber blight, 2008 (compared to normal)



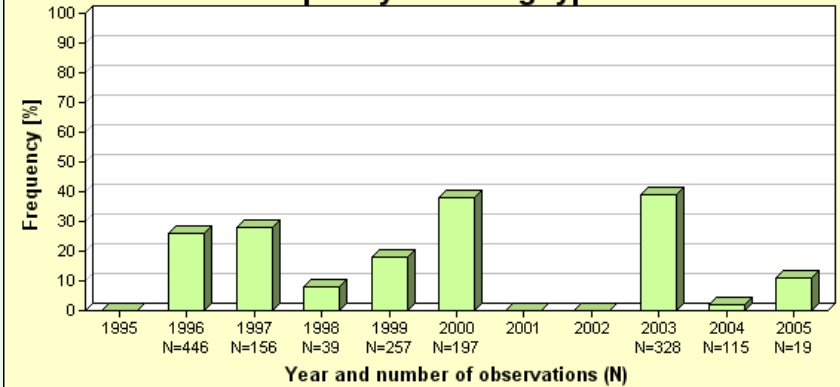
Frequencies of mating type A2

Frequency of mating type A2 England



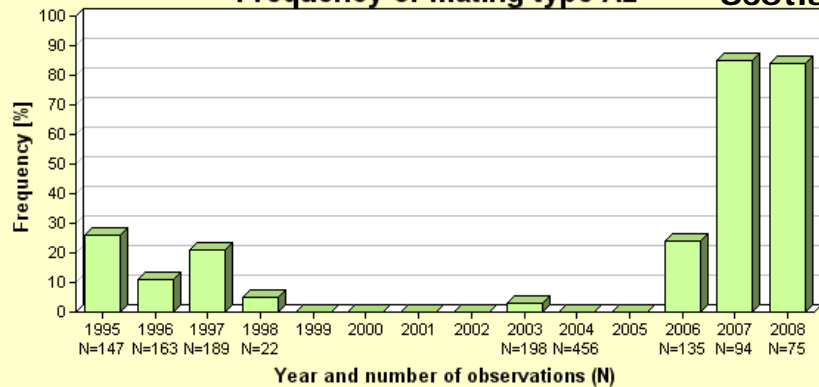
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Frequency of mating type A2 Norway



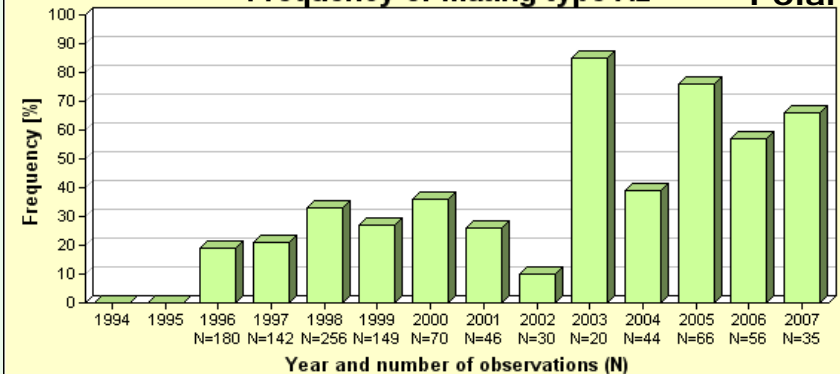
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Frequency of mating type A2 Scotland



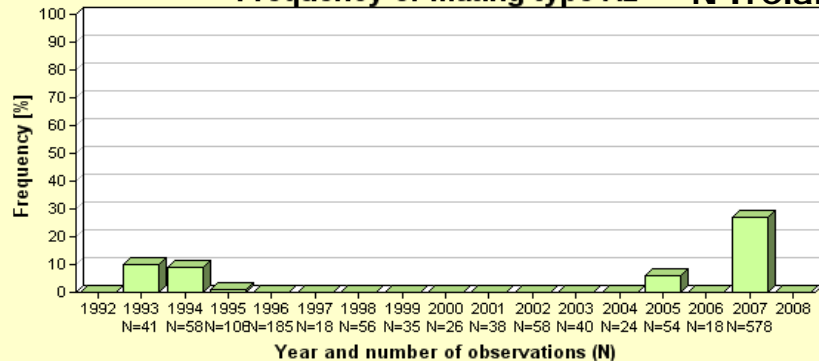
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Frequency of mating type A2 Poland



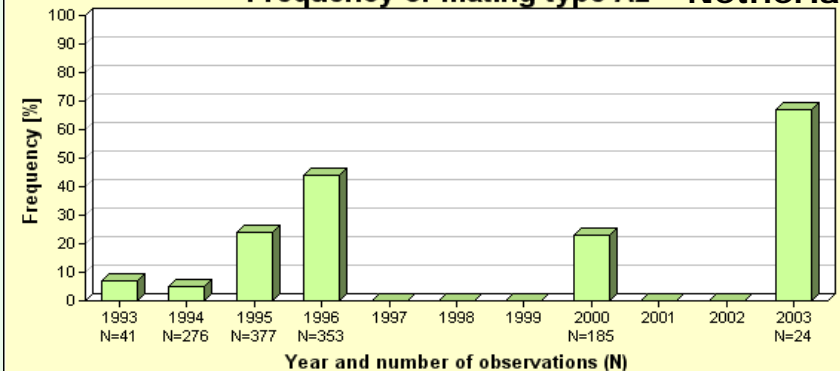
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Frequency of mating type A2 N Ireland



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Frequency of mating type A2 Netherland



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Use of DSSs

Belgium	Warning based on Guntz-Divoux
Czech Republic	Negative prognosis
Denmark	PlanteInfo
UK	Blight-Watch and Plant Plus
Estonia	Jögeva 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, VNIIF-3 and SimCast+VNIIF-3
Sweden	(Plant Plus)
Switzerland	PhytoPRE+2000

Late Blight Country Reports Summary

- Ø First infections later in 2008 than in 2007 in the Northern part of Europe
- Ø This coincides with relatively unfavourable weather for late blight in May and June in 2008
- Ø Only few reports of early infections from oospores in 2008
- Ø Late blight season in 2007 was extreme with many days with rain during most of the season
- Ø Fungicide use was higher in 2007 than in 2008
- Ø Tuber blight, 2007: Low to medium in all Europe (dry September?)
- Ø Tuber blight, 2008: Low in UK, FR, BE, NL and medium to high i North and East Europe
- Ø Consolidation of A2 population in UK and France
- Ø Most countries build their own DSSs based on known model components