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

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

[Image of a map showing the distribution of Phytophthora infestans with a note in Dutch: "Waarnemingen Phytophthora infestans in omgeving van Landelijk (straal 175 km).

Datum: 27.06.11"

Information from the monitoring system of Dacom may be used for educational and research purposes only, with the consent of Dacom. Reproduction of this information is not allowed. If you have any questions, you can contact us on the website or by phone at 0991-634688.

Agriculture and Horticulture Development Board, Stoneleigh Park, Kenilworth, Warwickshire, CV8 2TL.
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
Infection pressure

At selected stations 2011
Ås and Særheim - Norway
Blight indicators - monthly

- **Weather data from Ås**
  - Temperature [°C]
  - Precipitation (mm)

- **Infection Pressure**
  - RH threshold = 88%

- **WURCP**
  - RH threshold = 88%

- **Smith Criteria**
  - RH threshold = 88%

**Graphs**
- Days with infection
- Infection pressure
Blight indicators - monthly

Weather data from Særheim

Infection Pressure
RH threshold = 88%

WURCP
RH threshold = 88%

Smith Criteria
RH threshold = 88%

Days with infection
Infection pressure

Særheim
Norway

May June July August
Days with infection
Ås and Særheim - Norway
Blight indicators - monthly

Weather data from Chateauneuf du Faou

Infection Pressure
RH threshold ~ 88%

WURCP
RH threshold ~ 88%

Smith Criteria
RH threshold ~ 88%

Days with infection
Infection pressure

Chateauneuf du Faou
France

May | June | July | August
---|---|---|---
350 | 300 | 250 | 200
250 | 200 | 150 | 100
200 | 150 | 100 | 50
150 | 100 | 50 | 0
Blight indicators - monthly

Weather data from Boigneville

Infection Pressure
RH threshold – 88%

WURCP
RH threshold – 88%

Smith Criteria
RH threshold – 88%

Boigneville, France

Days with infection
Infection pressure

May
June
July
August
Fungicide use – Belgium

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

Number of treatments (Bintje) | date of first occurrence


- 10 jun 13 jun 3 jun 30 mei 15 mei 28 apr 29 apr 30 apr 2 mei 29 apr 5 mei 13 mei 30 apr 15 mei
- 22 apr 28 apr 16 16 16 21 19 15 mei 15 apr
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
<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Warning based on Guntz-Divoux</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Negative prognosis</td>
</tr>
<tr>
<td>Denmark</td>
<td>Blight Management</td>
</tr>
<tr>
<td>UK</td>
<td>Blight-Watch and Plant Plus</td>
</tr>
<tr>
<td>Estonia</td>
<td>Jögeva PBI web system</td>
</tr>
<tr>
<td>France</td>
<td>Mileos (MilPV + MildiLIS)</td>
</tr>
<tr>
<td>Germany</td>
<td>PhytophthoraModel Weihenstephan, ISIP</td>
</tr>
<tr>
<td>Netherlands</td>
<td>ProPhy and Plant Plus</td>
</tr>
<tr>
<td>N. Ireland</td>
<td>DARD Blight-Net</td>
</tr>
<tr>
<td>Norway</td>
<td>VIPS</td>
</tr>
<tr>
<td>Russia</td>
<td>Plant Plus, VNIIF-3 and SimCast+VNIIF-3</td>
</tr>
<tr>
<td>Sweden</td>
<td>(Plant Plus)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>PhytoPRE+2000</td>
</tr>
<tr>
<td>Country</td>
<td>Name</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Belgium (Flanders)</td>
<td>Pieter Vanhaverbeke</td>
</tr>
<tr>
<td>Belgium (Wallonie)</td>
<td>Jean-Louis Rolot</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Ervin Hausvater</td>
</tr>
<tr>
<td>Denmark</td>
<td>Jens G. Hansen &amp; Bent Nielsen</td>
</tr>
<tr>
<td>England/Wales</td>
<td>Faye Ritchie</td>
</tr>
<tr>
<td>Estonia</td>
<td>Mati Koppel</td>
</tr>
<tr>
<td>Finland</td>
<td>Asko Hannukkala</td>
</tr>
<tr>
<td>France</td>
<td>Ludovic Dubois &amp; Catherine Chatot</td>
</tr>
<tr>
<td>Germany</td>
<td>Hans Hausladen &amp; Benno Kleinhenz</td>
</tr>
<tr>
<td>Hungary</td>
<td>?</td>
</tr>
<tr>
<td>Ireland</td>
<td>Steven Kildea</td>
</tr>
<tr>
<td>Italy</td>
<td>Riccardo Bugiani</td>
</tr>
<tr>
<td>Latvia</td>
<td>Linda Bucena</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Antanas Ronis/Guntis Gulbis</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Kees Vogelar</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>Louise Cooke</td>
</tr>
<tr>
<td>Norway</td>
<td>Arne Hermansen &amp; Ragnhild Nærstad</td>
</tr>
<tr>
<td>Poland</td>
<td>Jozefa Kapsa</td>
</tr>
<tr>
<td>Portugal</td>
<td>?</td>
</tr>
<tr>
<td>Rumania</td>
<td>?</td>
</tr>
<tr>
<td>Russia</td>
<td>Alexey Filippov</td>
</tr>
<tr>
<td>Scotland</td>
<td>Ruairidh Bain &amp; Alison Lees</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Peter Vrabček</td>
</tr>
<tr>
<td>Spain</td>
<td>?</td>
</tr>
<tr>
<td>Sweden</td>
<td>Bjorn Andersson</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Tomke Musa</td>
</tr>
</tbody>
</table>

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
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