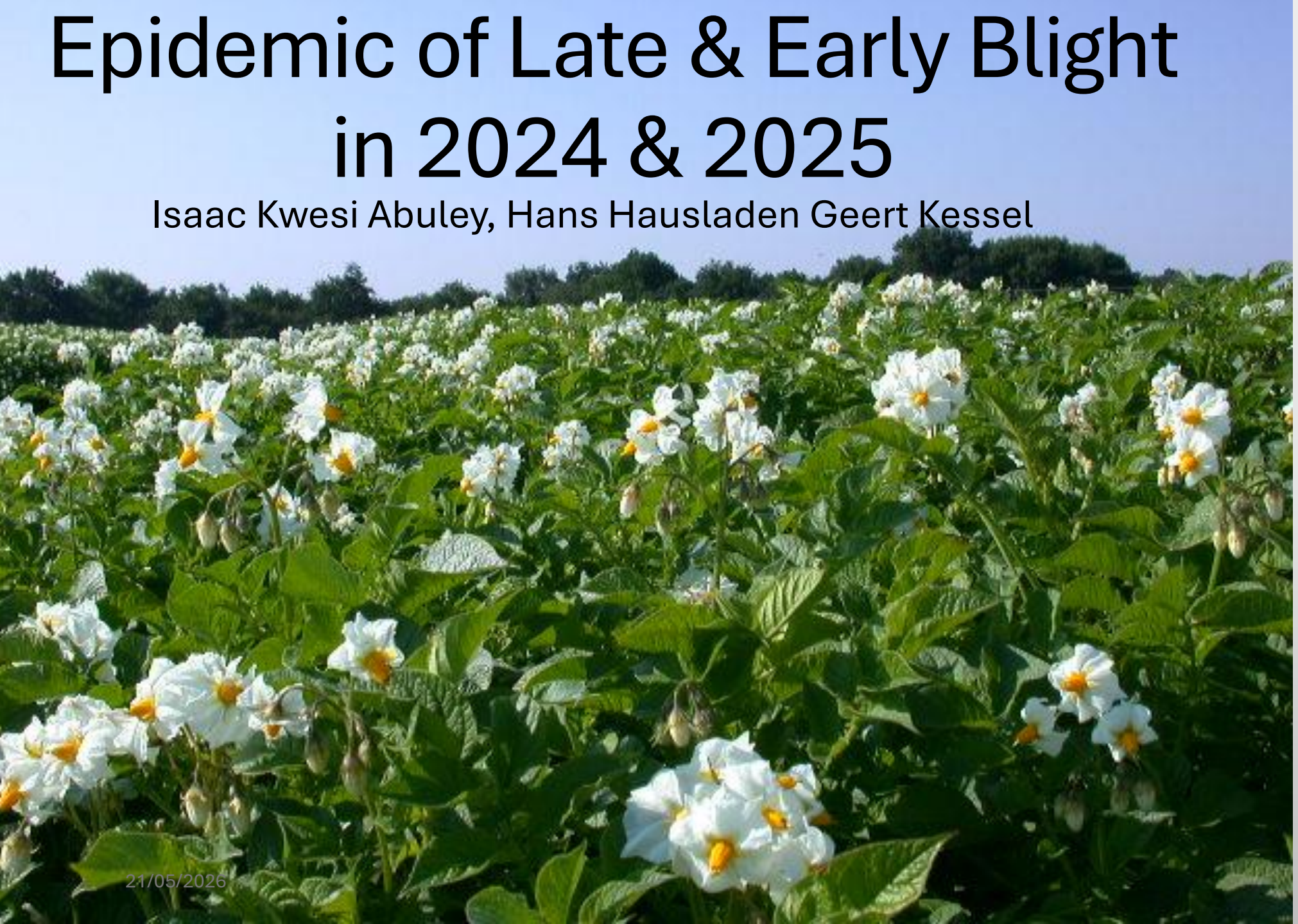
Epidemic of Late & Early Blight in 2024 & 2025

Isaac Kwesi Abuley, Hans Hausladen Geert Kessel

EuroBlight
A potato late blight network for Europe



Country Reporters

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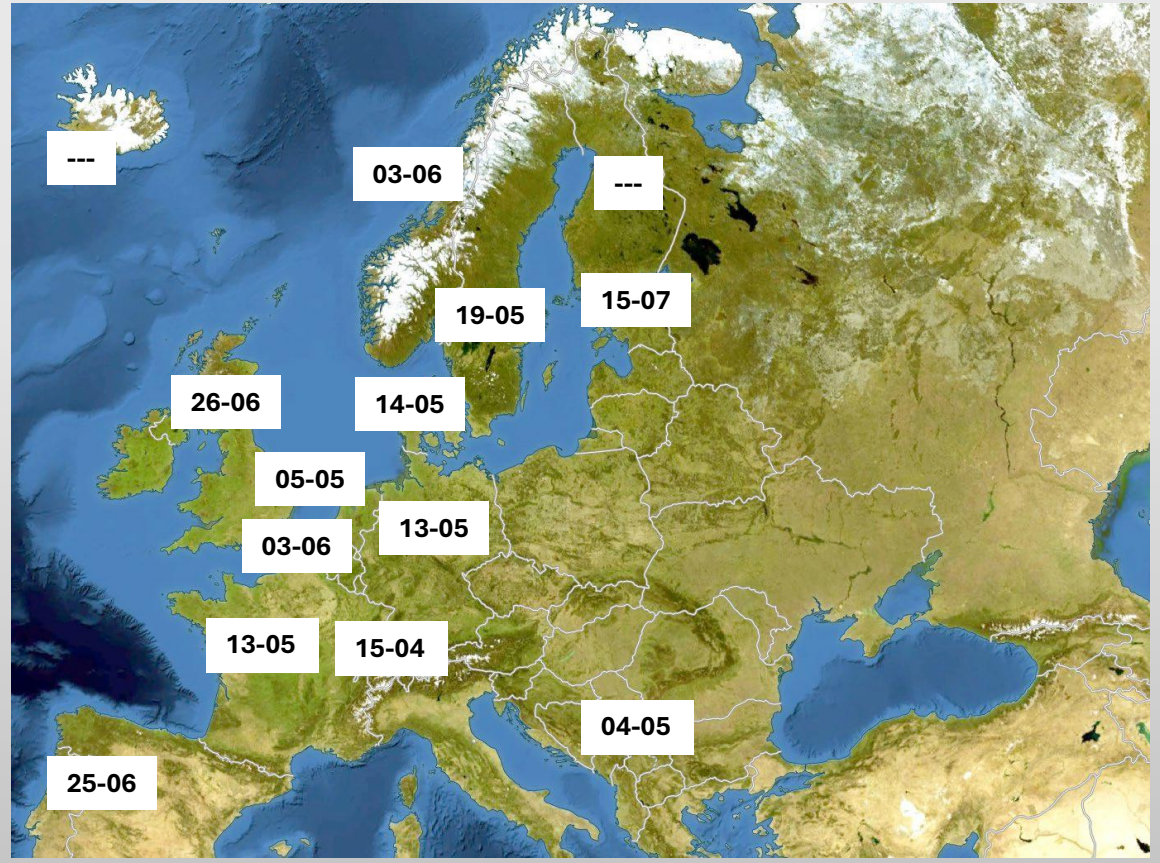
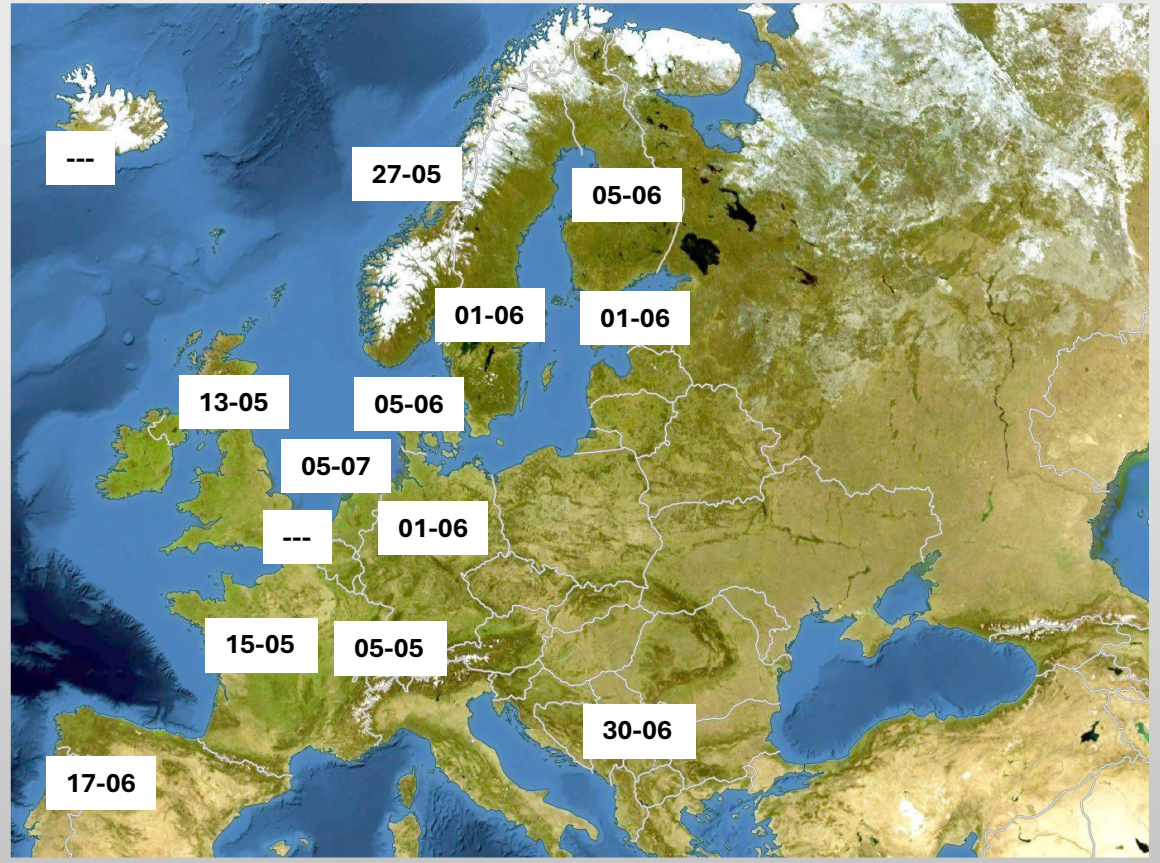
Onset of late blight in early planted potatoes

2024



2025



Onset of late blight in Normally planted potatoes

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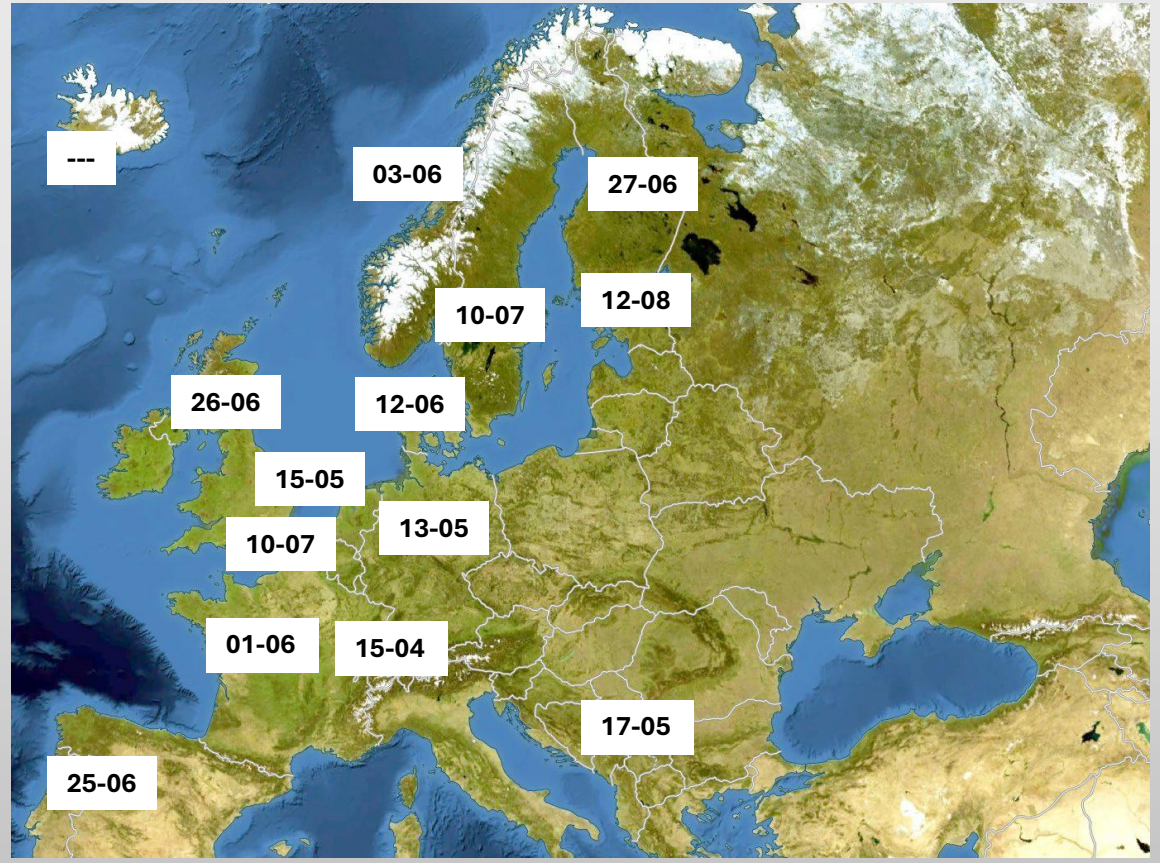

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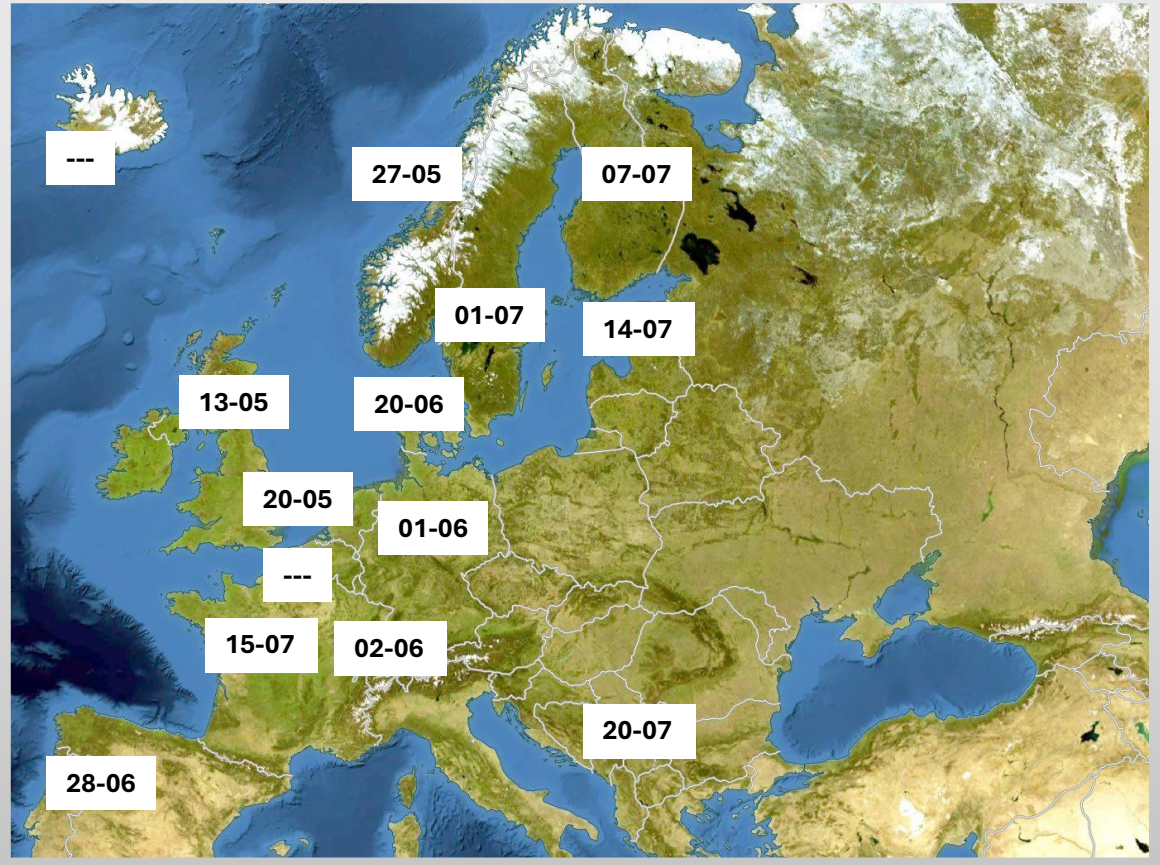

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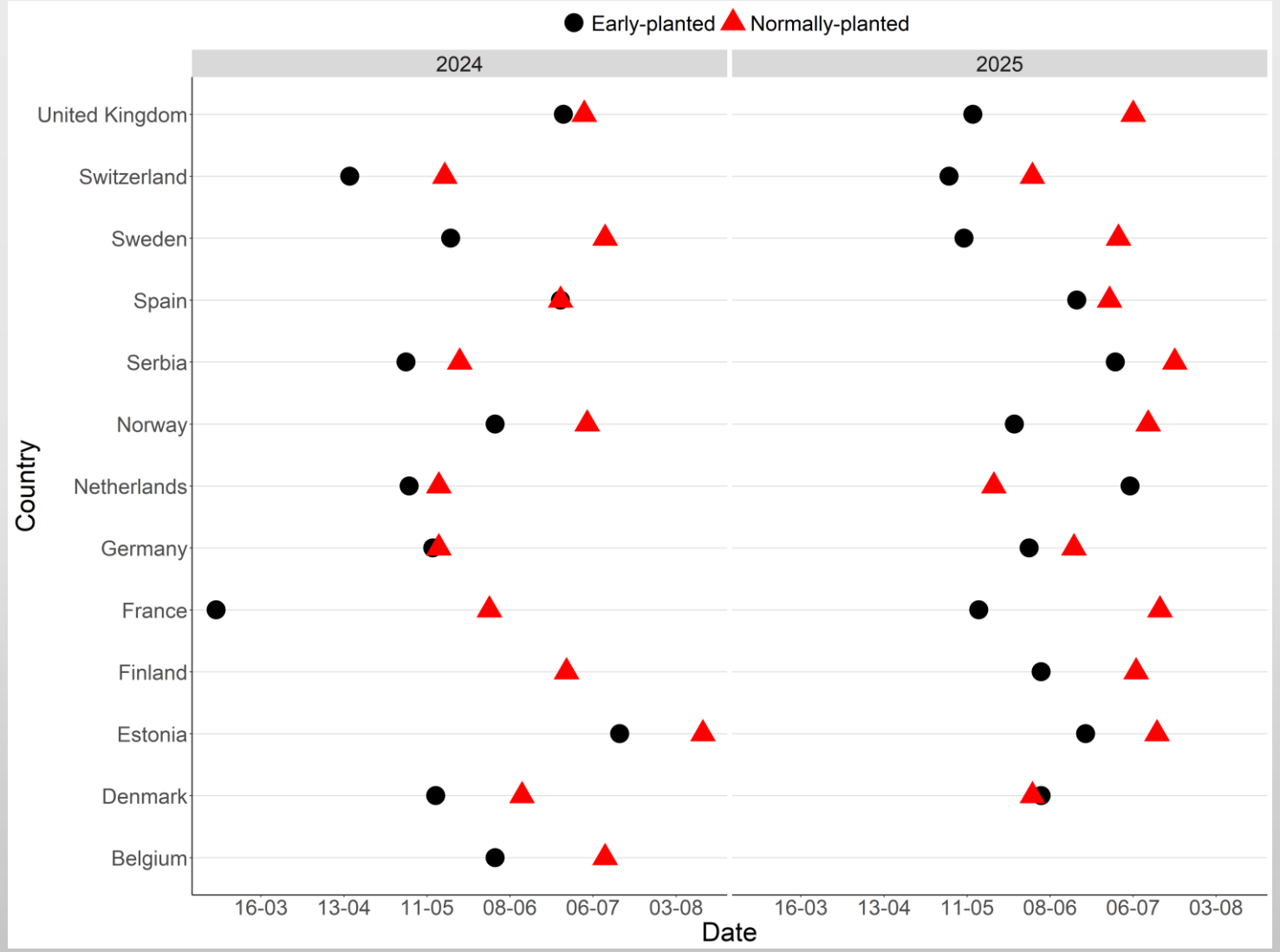
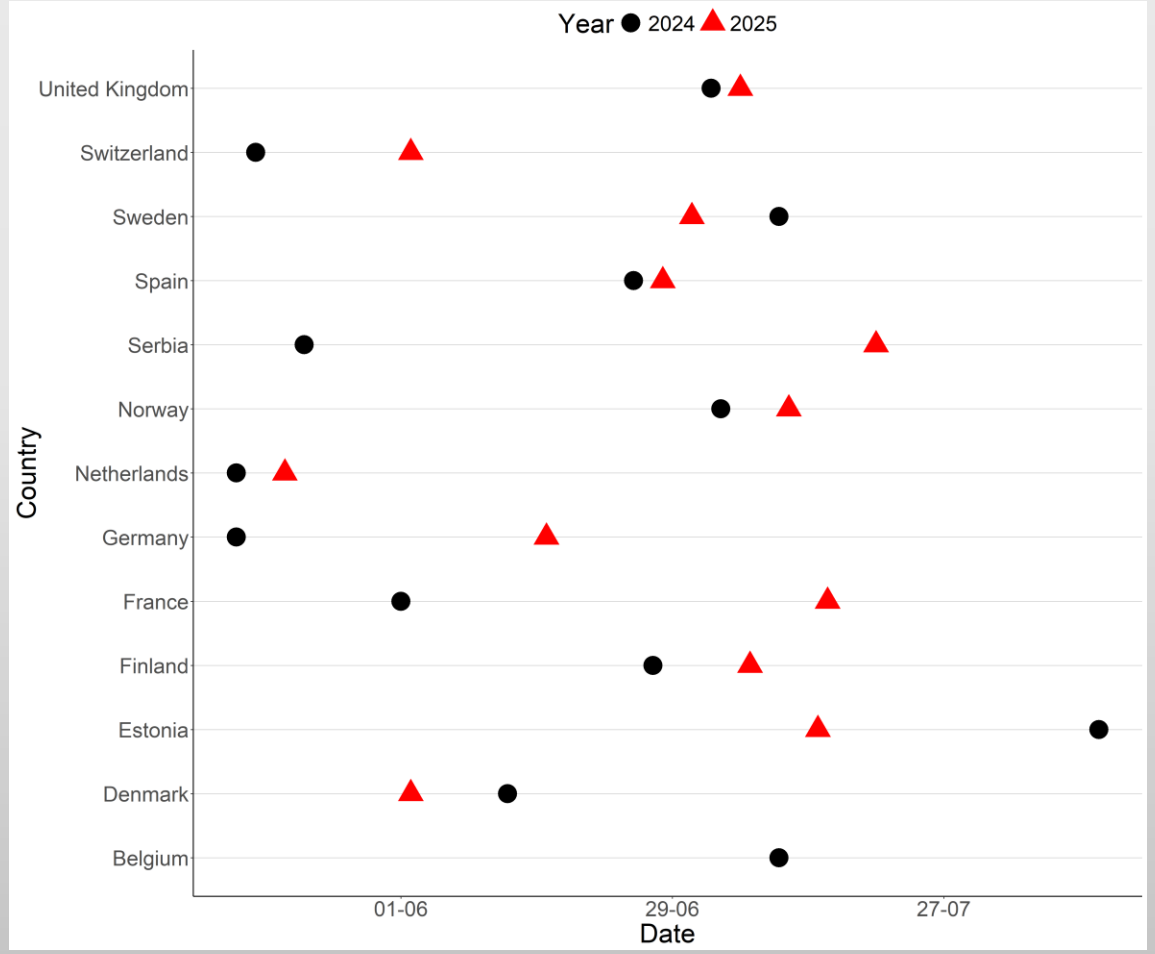
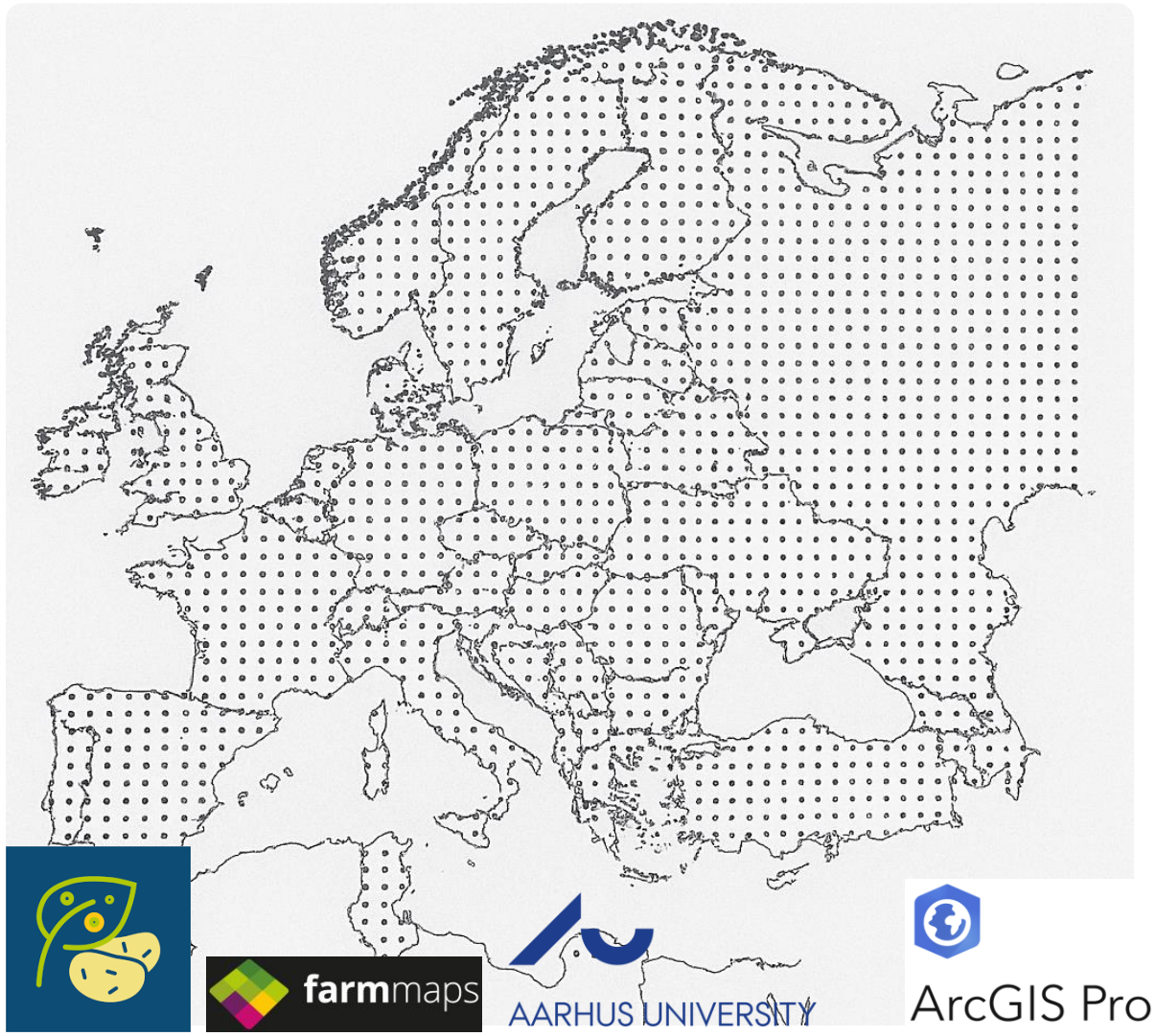


Comparing the when late blight was observed in > 5 conventional fields in 2024 and 2025

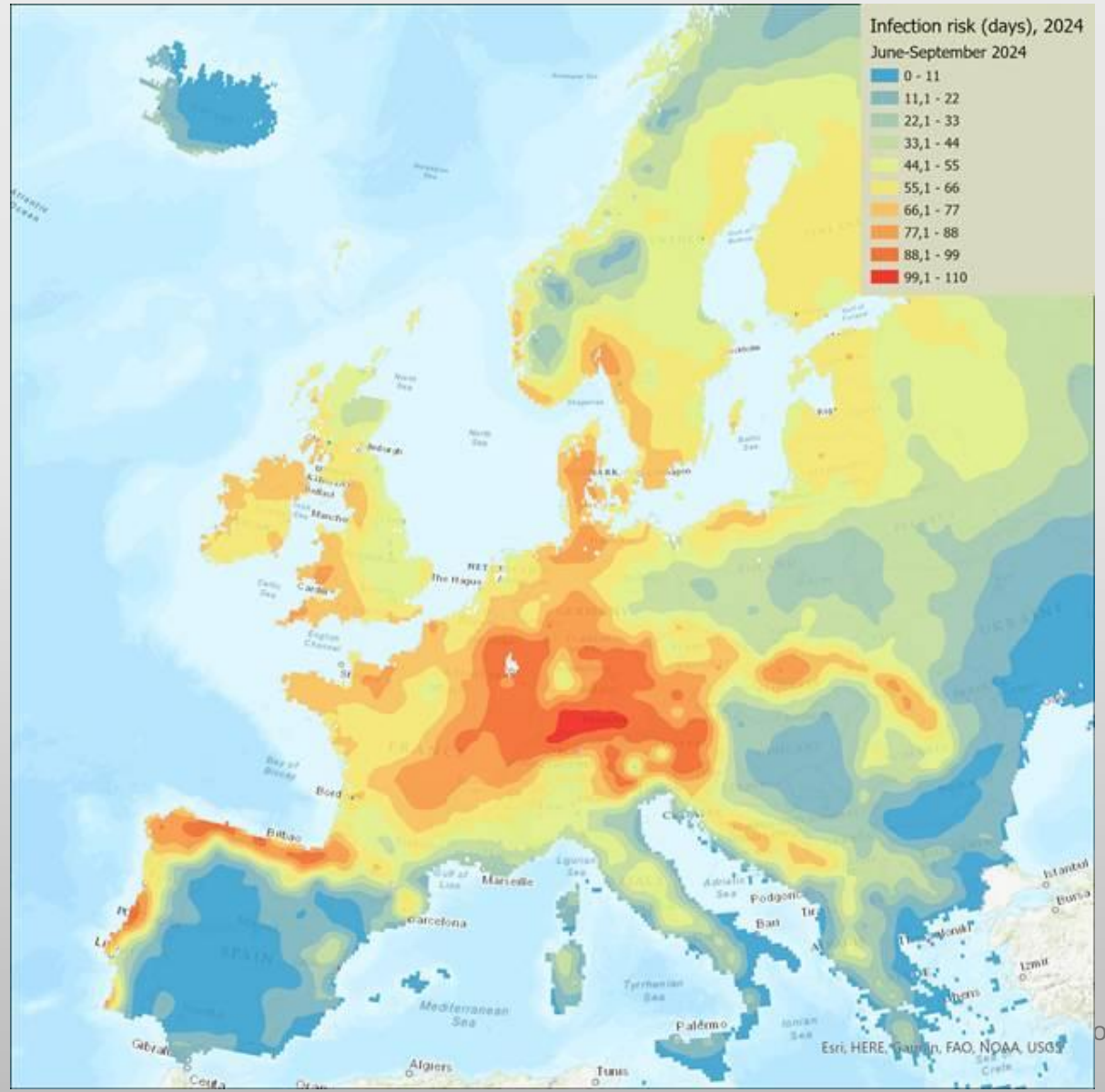


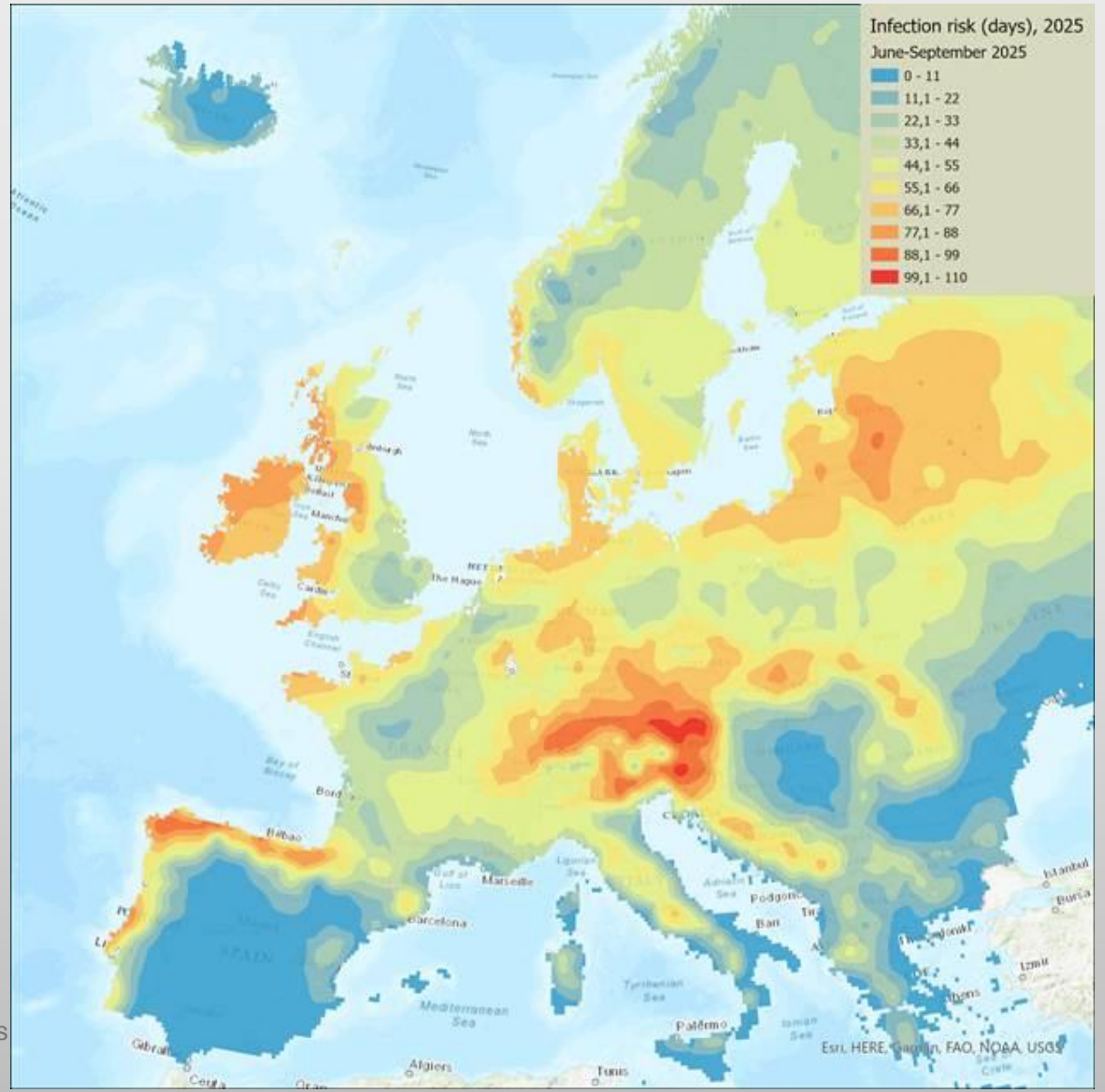
Farmmaps BlightApp infection events

- Daily infection risks 1 January – 31 December
- 2013 – 2025
- Cumulative infection events June – September (~ 120 days)
- Is a simple accumulation sufficient?

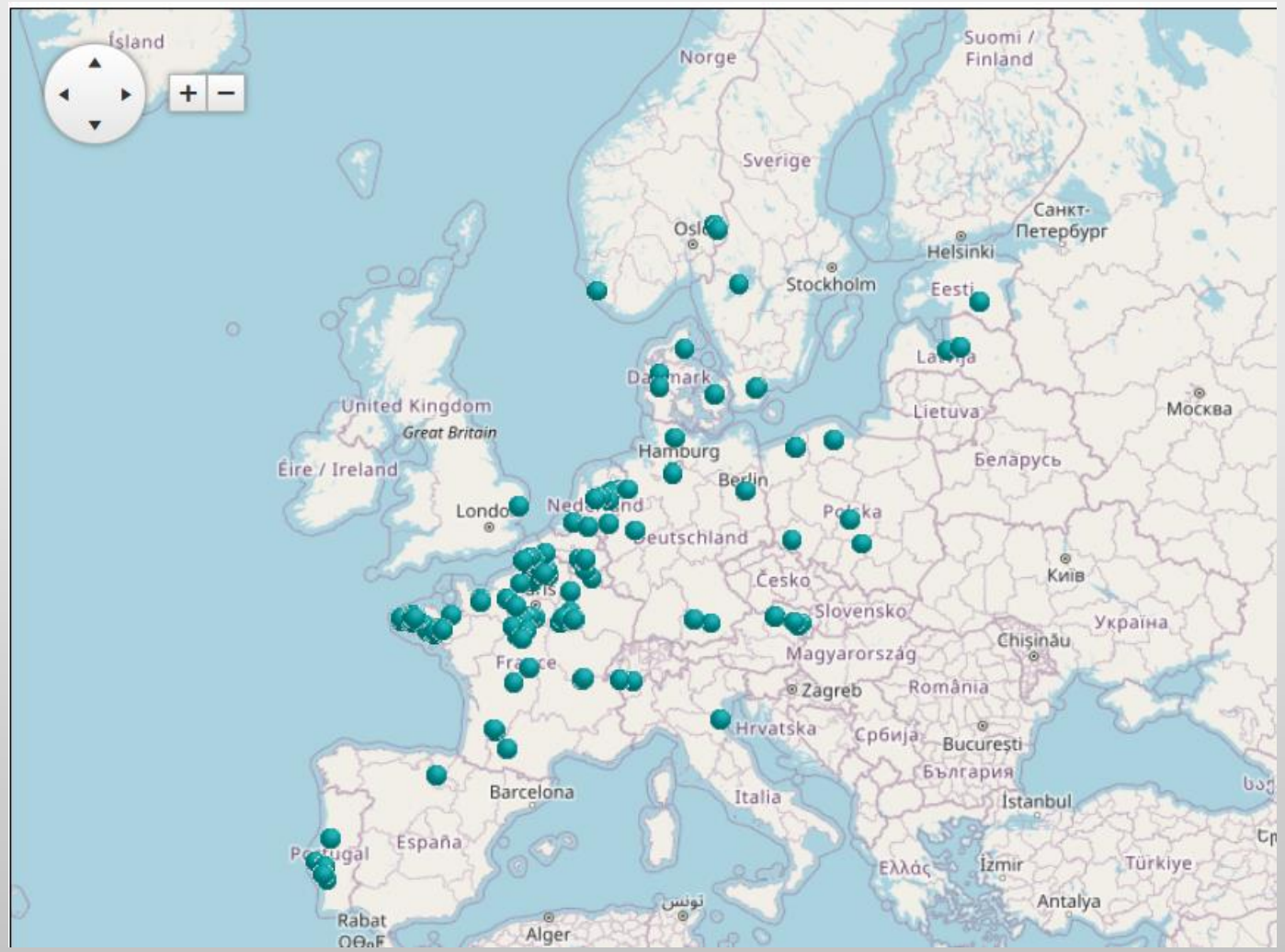


Weather-based BlightRisk in 2024 and 2025

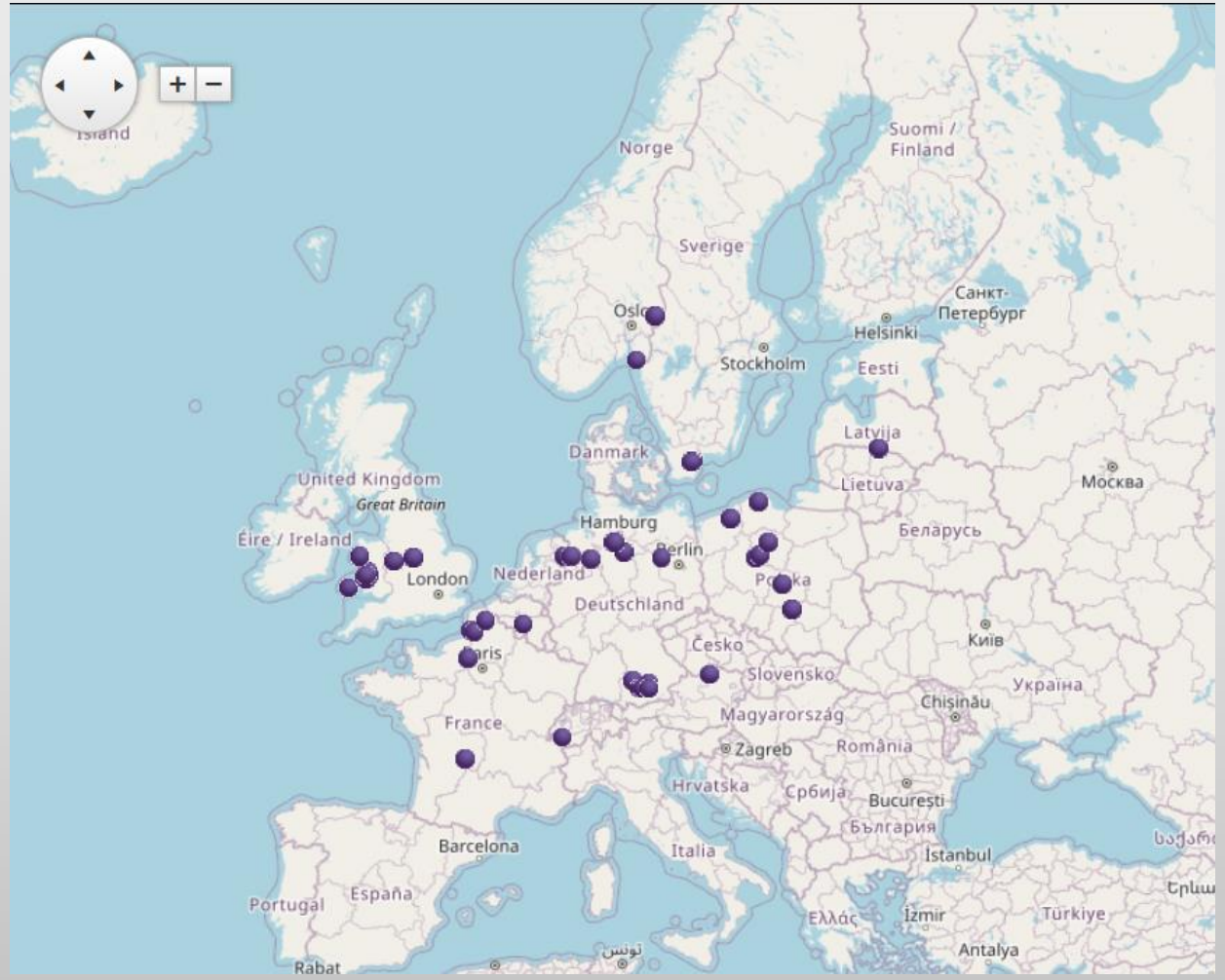




EU43 as a proxi for CAA + OSBPi resistance



EU46 as a proxi for OSBPi resistance



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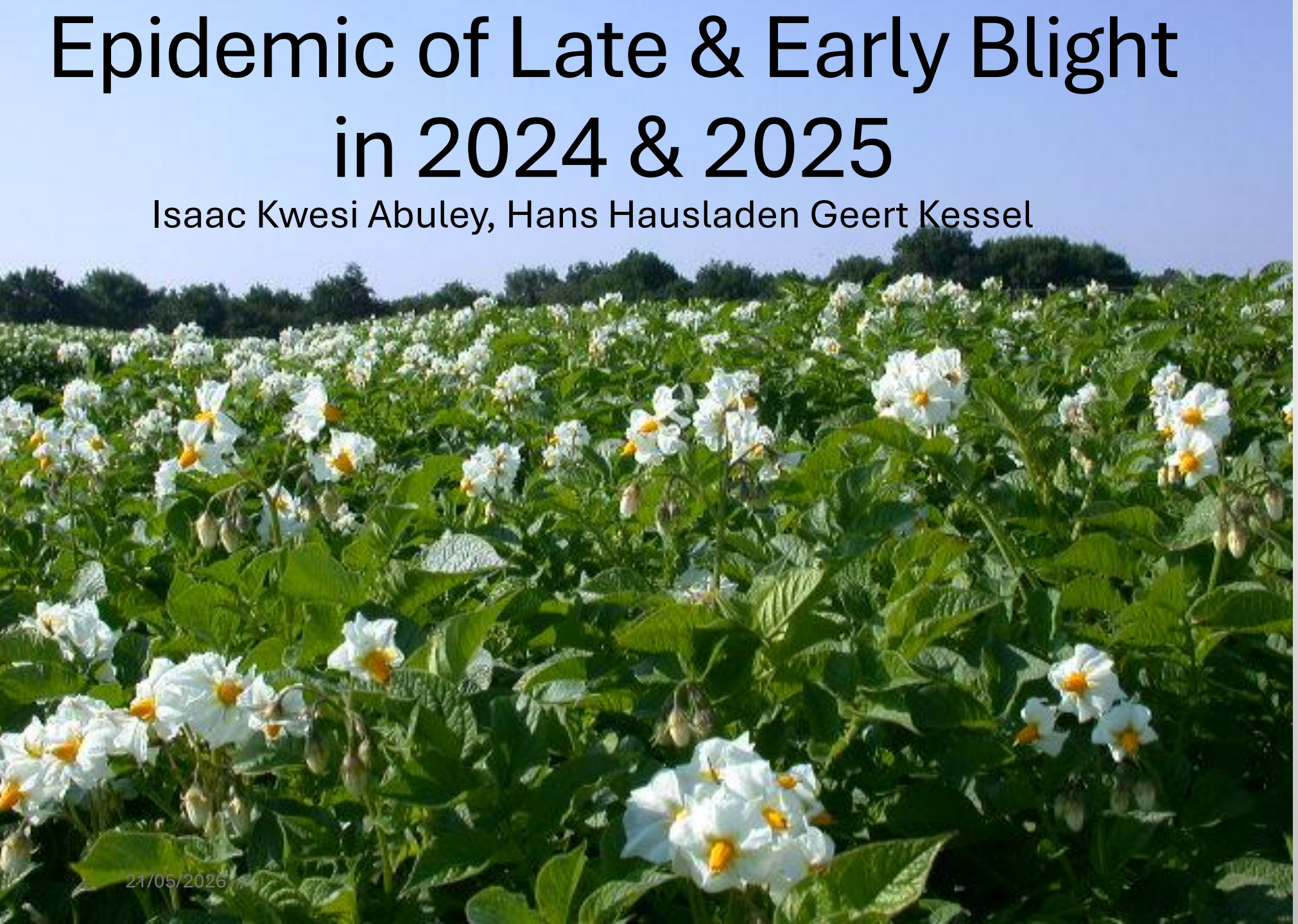

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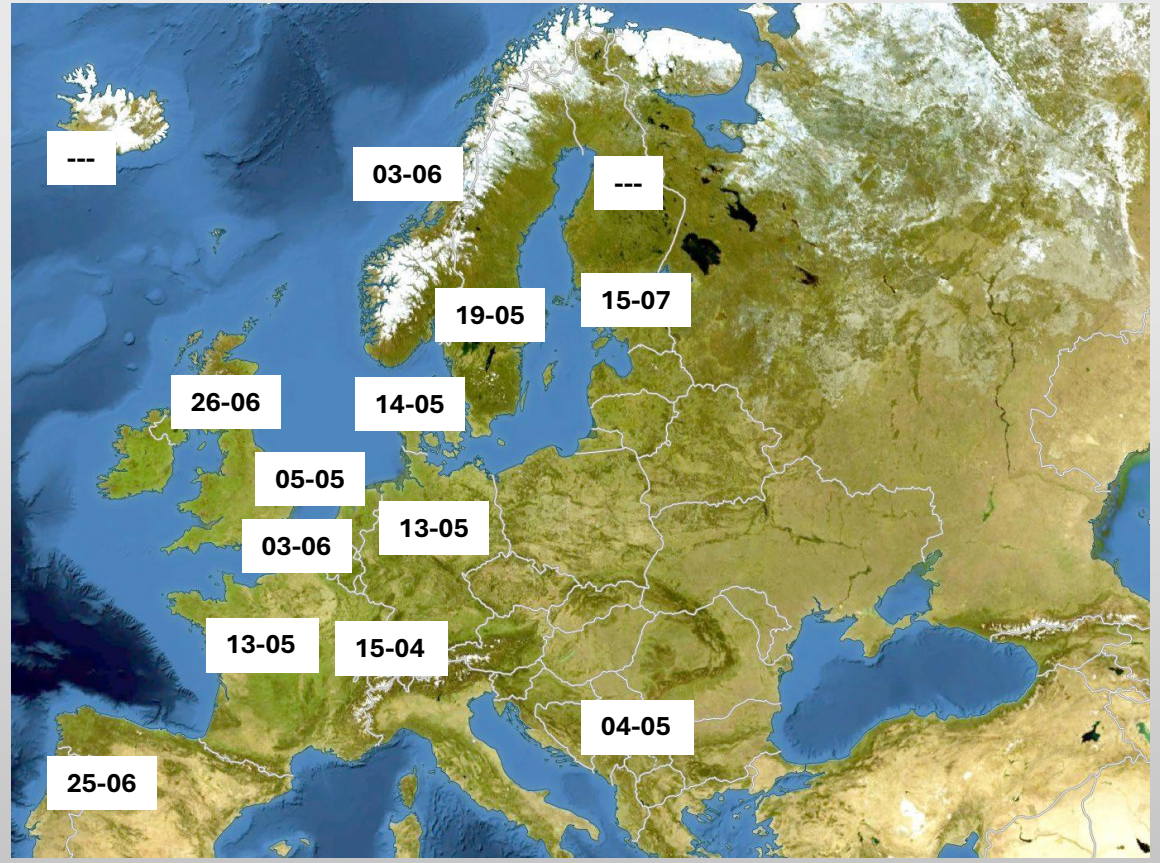
Content

- Late blight epidemics
  - Onset of late blight in early and normally planted potatoes
  - Primary inoculum sources
  - Favorability of the weather to late blight development
  - Simulation of weather-based risk
  - Fungicides and Decision support system
  - Tuber blight
  - Yield loss caused by late blight
  - Characteristic of P. infestans population

- Early blight
  - First observation of early bligt (2022 & 2023)
  - Disease epidemic of early blight
  - Favorability of the weather to late blight development
  - Early blight specific disease severity (2022 & 2023)
  - Identified *Alternaria* species
  - Occurence of mutations
  - Use of Decision Support Systems
  - Observed early blight tuber infections
  - Yield loss due to early blight

Onset of late blight in early planted potatoes

2024



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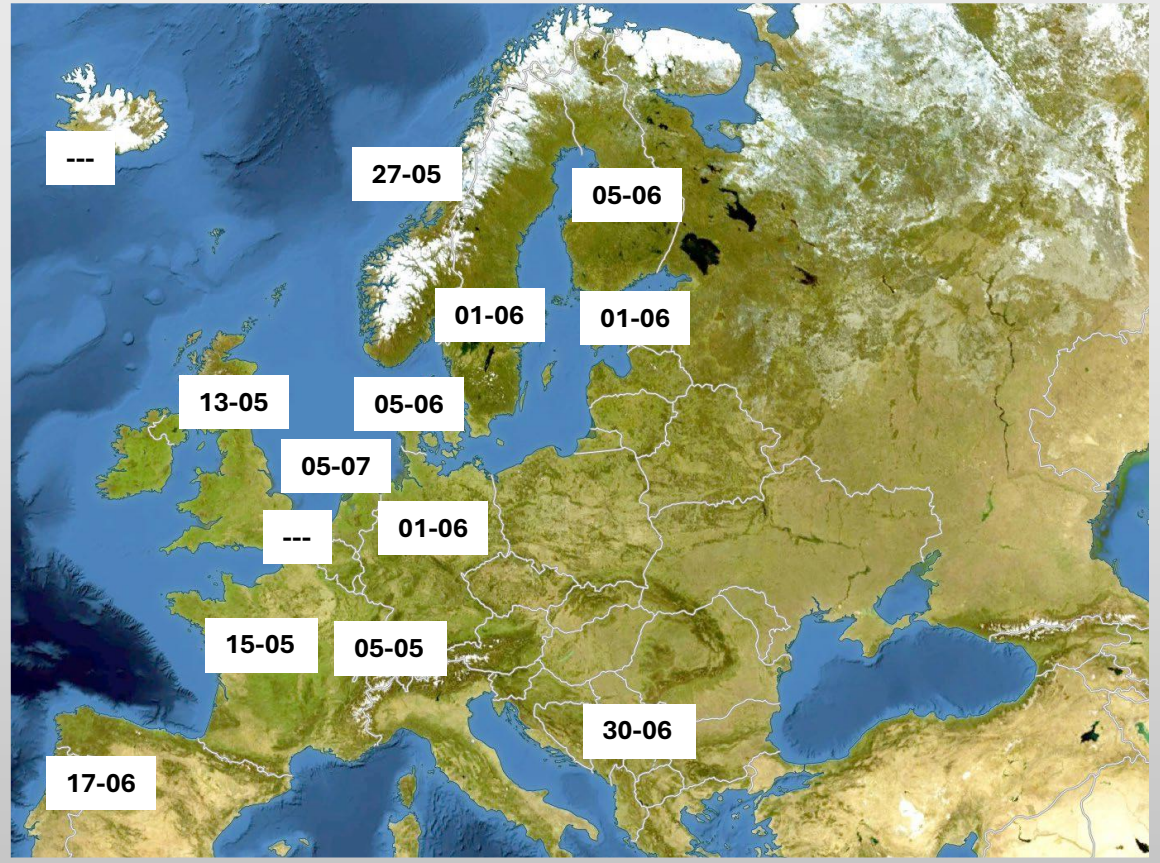

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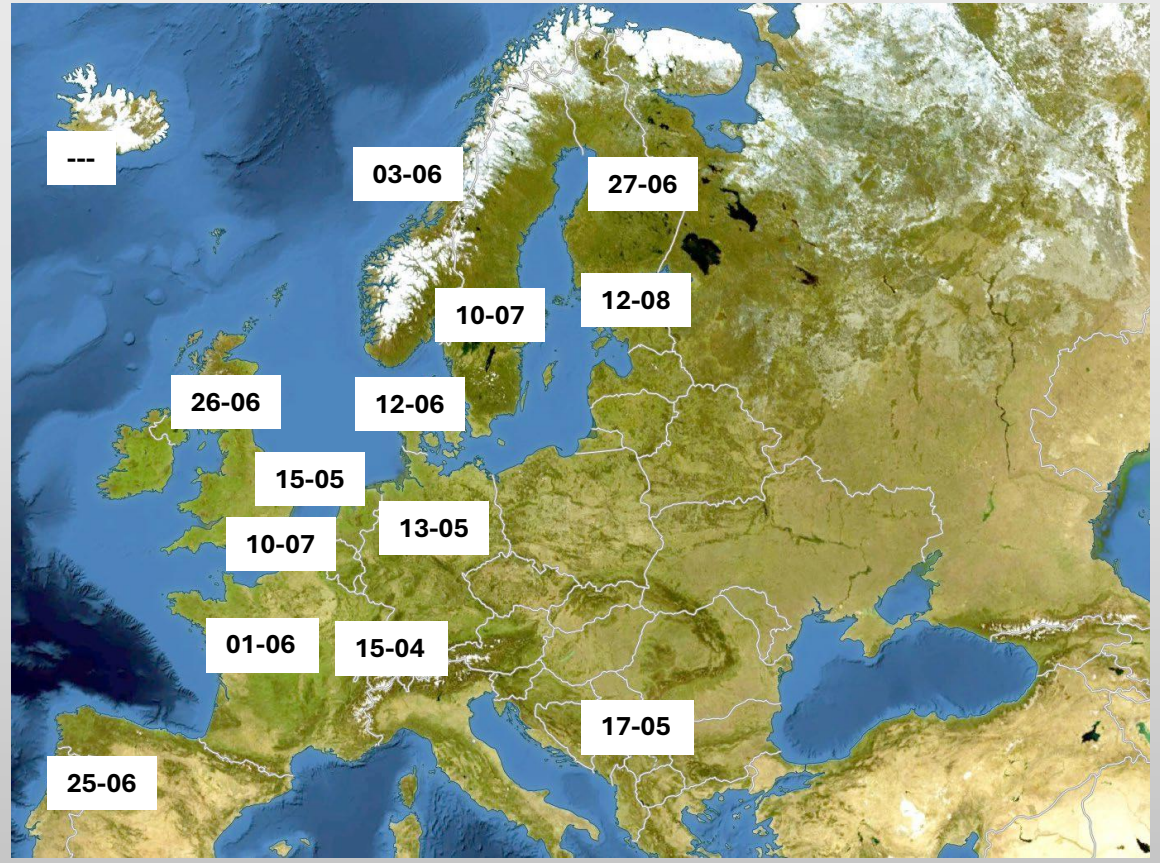

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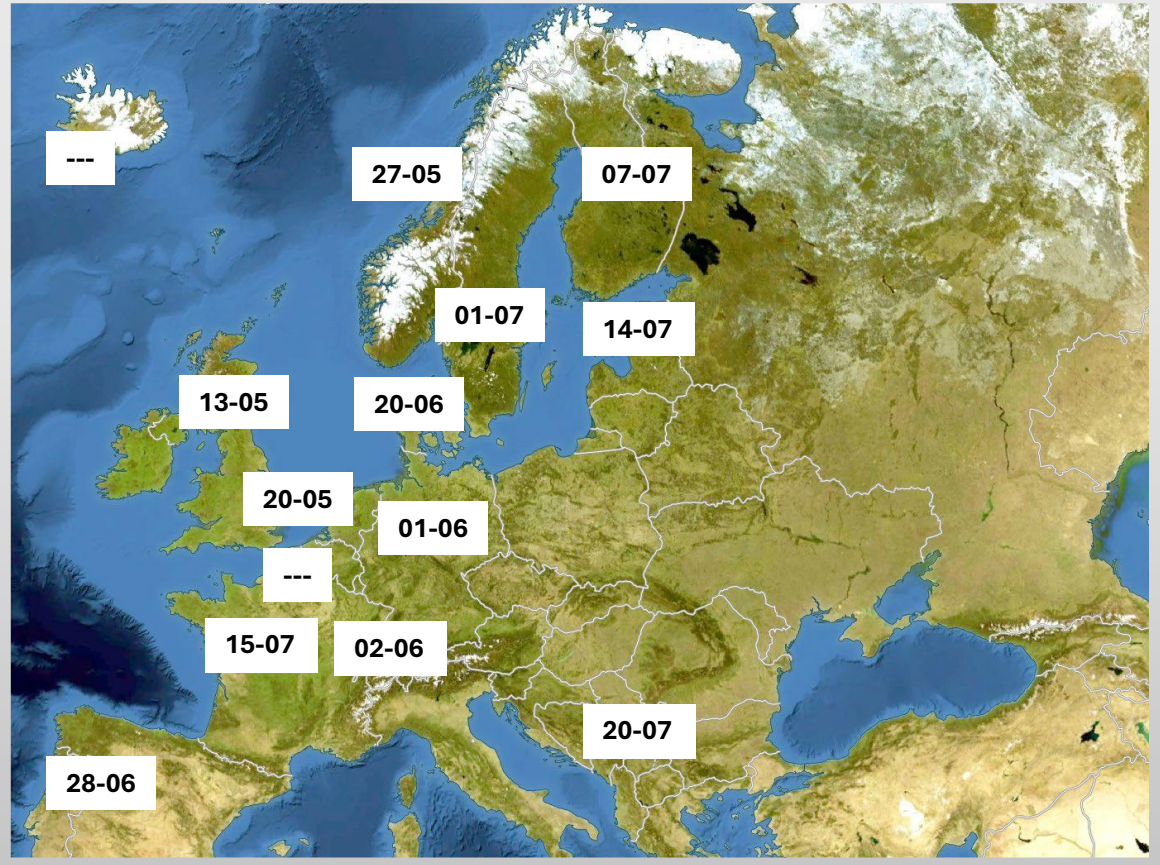

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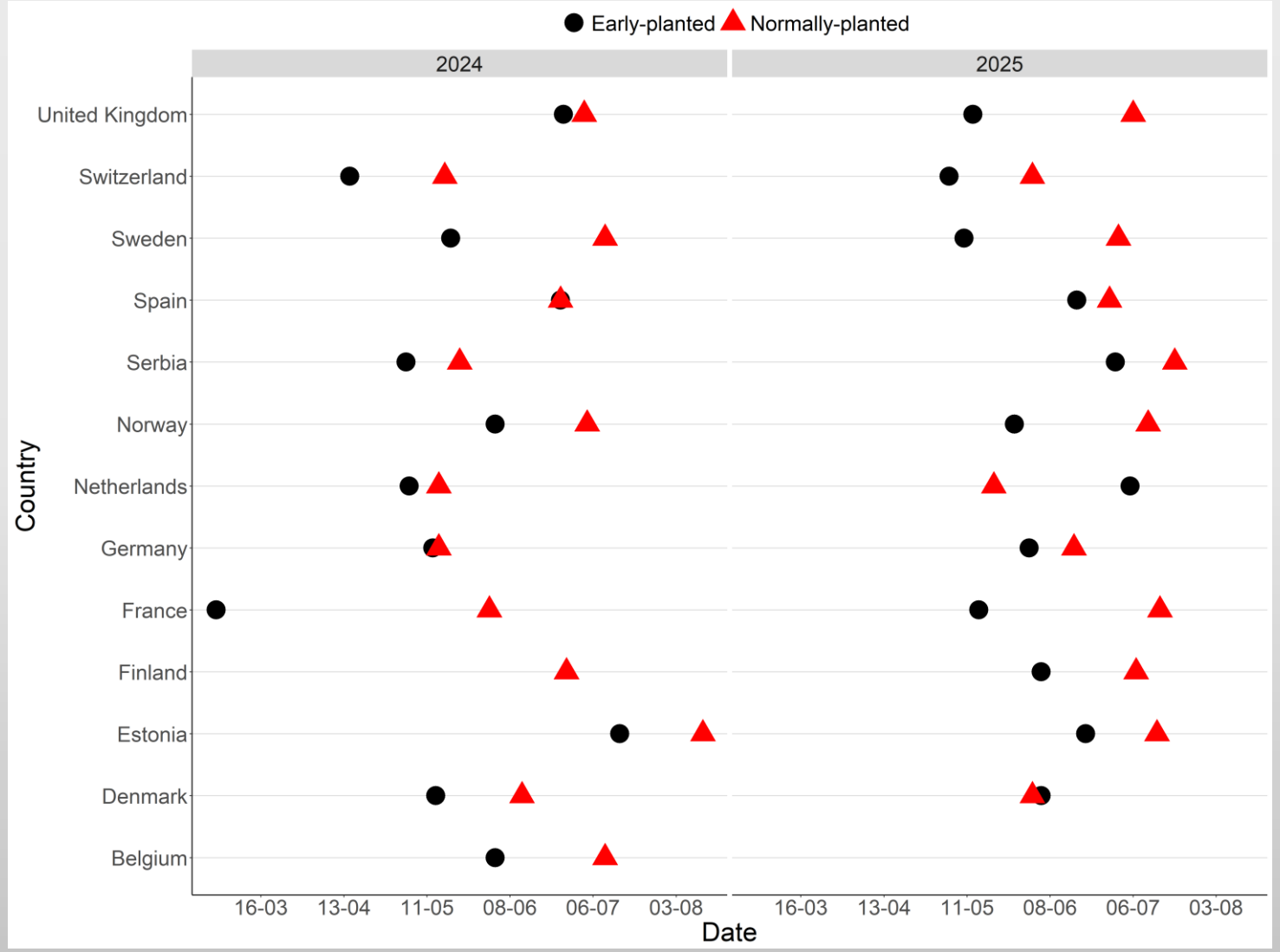

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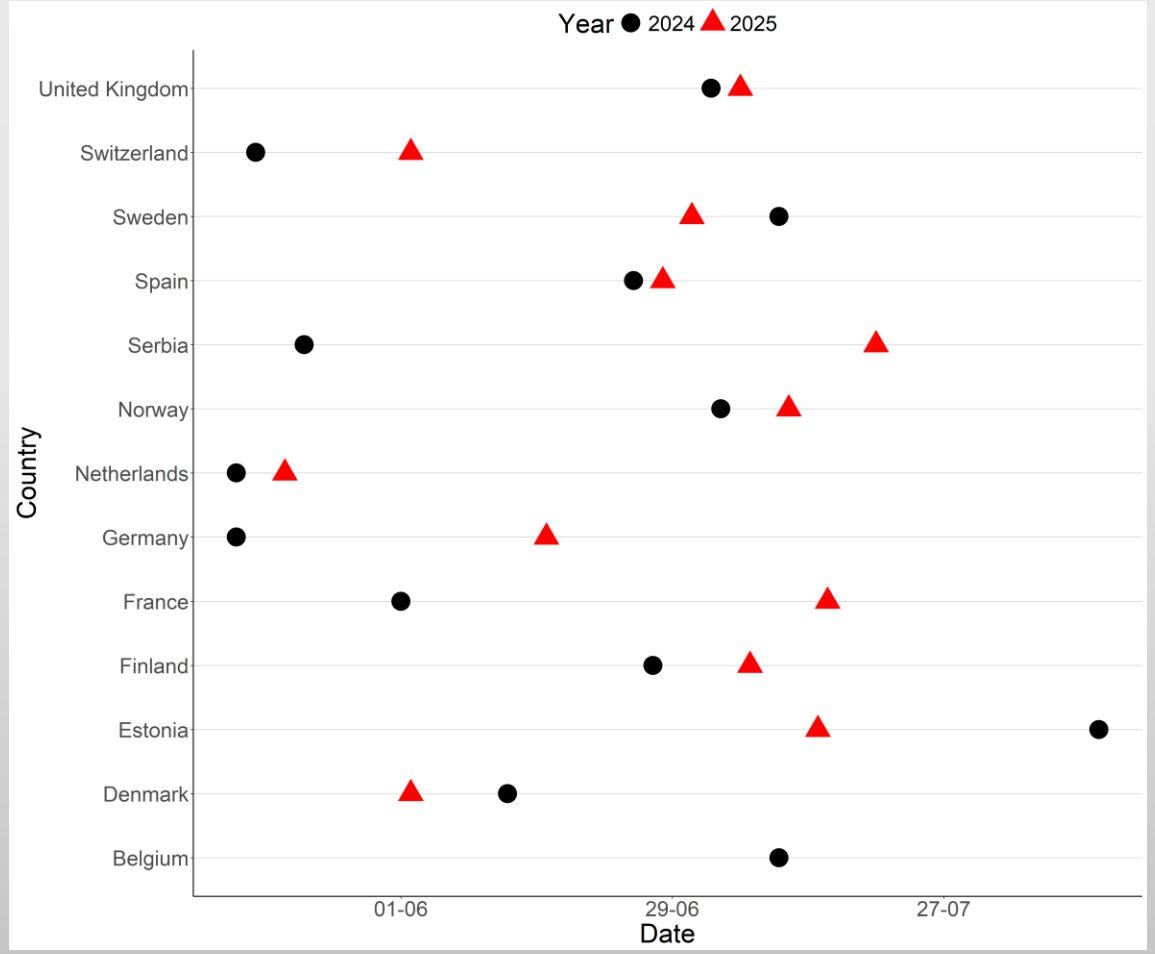
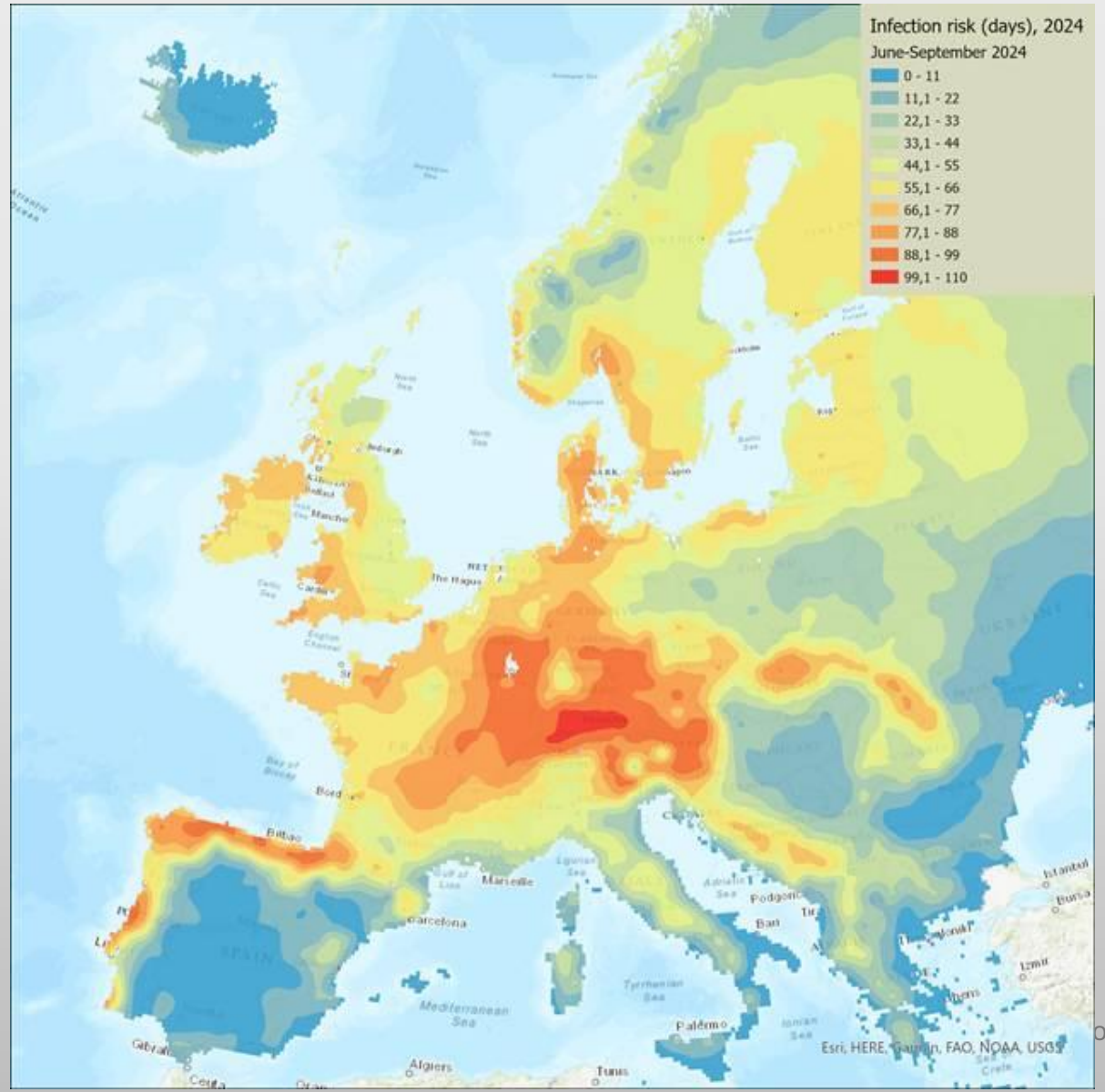
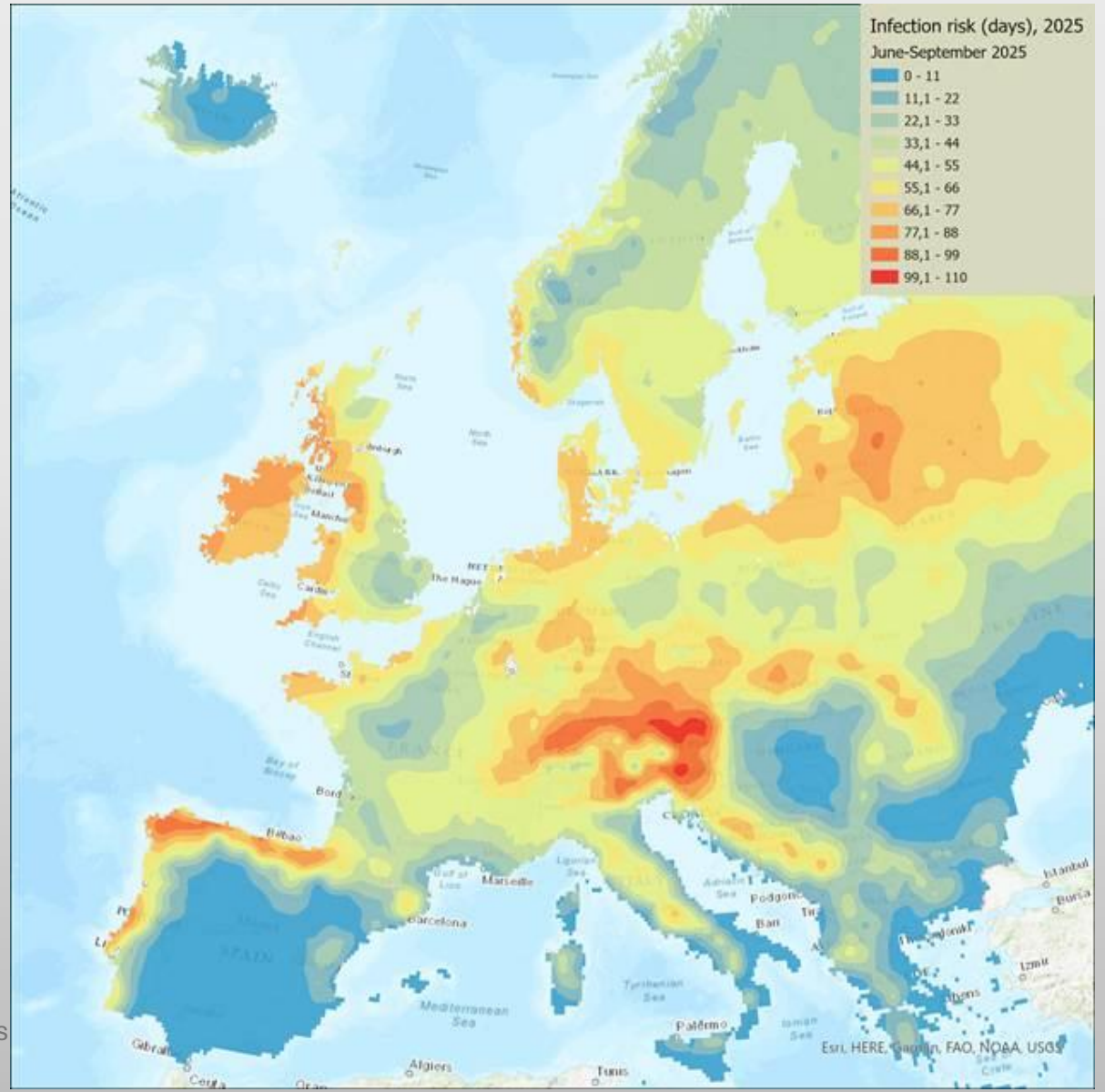


Weather-based BlightRisk in 2024 and 2025





The use of fungicides and and late blight control strategies

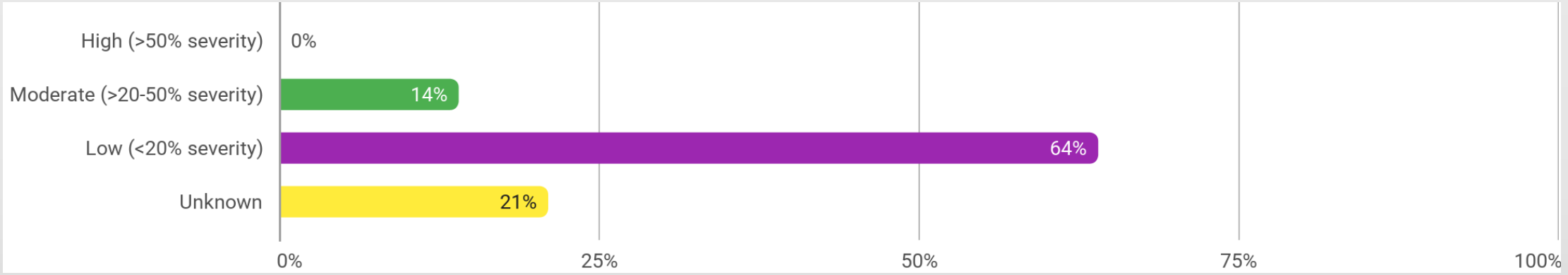
- Late blight pressure was very high in 2024 in many regions, resulting in intensive spray programs (up to 12–14 applications).
- 2025 generally had lower pressure, allowing longer intervals and greater reliance on protectant fungicides.
- Mixing and alternation of modes of action (MoA) is now standard practice across Europe.
- Key fungicides applied applied across countries:
  - Widely used: Fluazinam, Cyazofamid, Amisulbrom, mandipropamid, benthiavalicarb, propamocarb, cymoxanil, oxathiapiprolin, fluopicolide
  - In few countries: Mancozeb (e.g., Scotland)
  - Used for the first time : Phosphonate (e.g., Scotland), valifenalate (Scotland)

The use Decision Support systems

Country	DSS used	Usage rate
Denmark	BlightManager	>60%
	BlightTracker	
Norway	Nærstad	>60%
	Negative prognosis, VIPS, Nærstad Model	>60%
Switzerland	PhytoPRE	>60%
Sweden	BlightManager & Norwegian VIPS	Limited
	Nærstad	
Spain	NegFry	
France	Mileos	60%
Poland	NegFry	-
Finland	No National DSS	-
Germany	PhytophthoraModell Weihenstephan, ISIP	>60%
Iceland	No National DSS	-
England & Wales	Hutton Critertia	>60%
Scotland	BlightSpy	-
Netherlands	PropPhy, PlantPlus, etc.	>60%

The level of tuber attacks in 2024 and 2025?

2024



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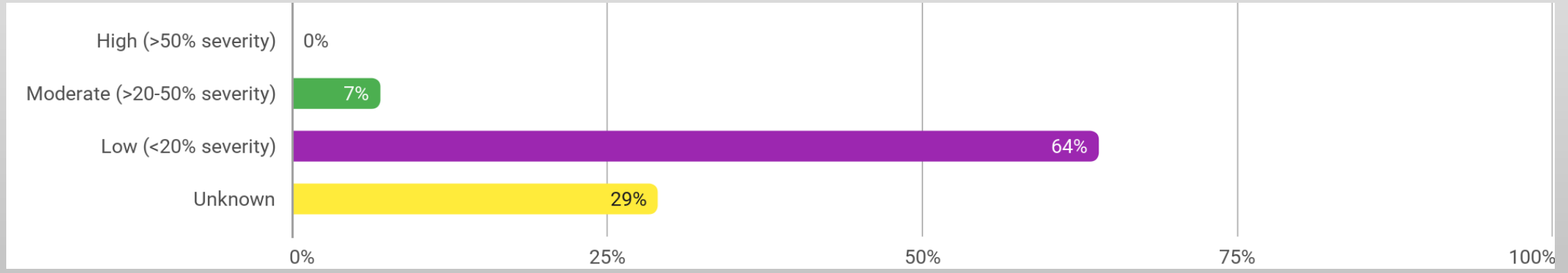

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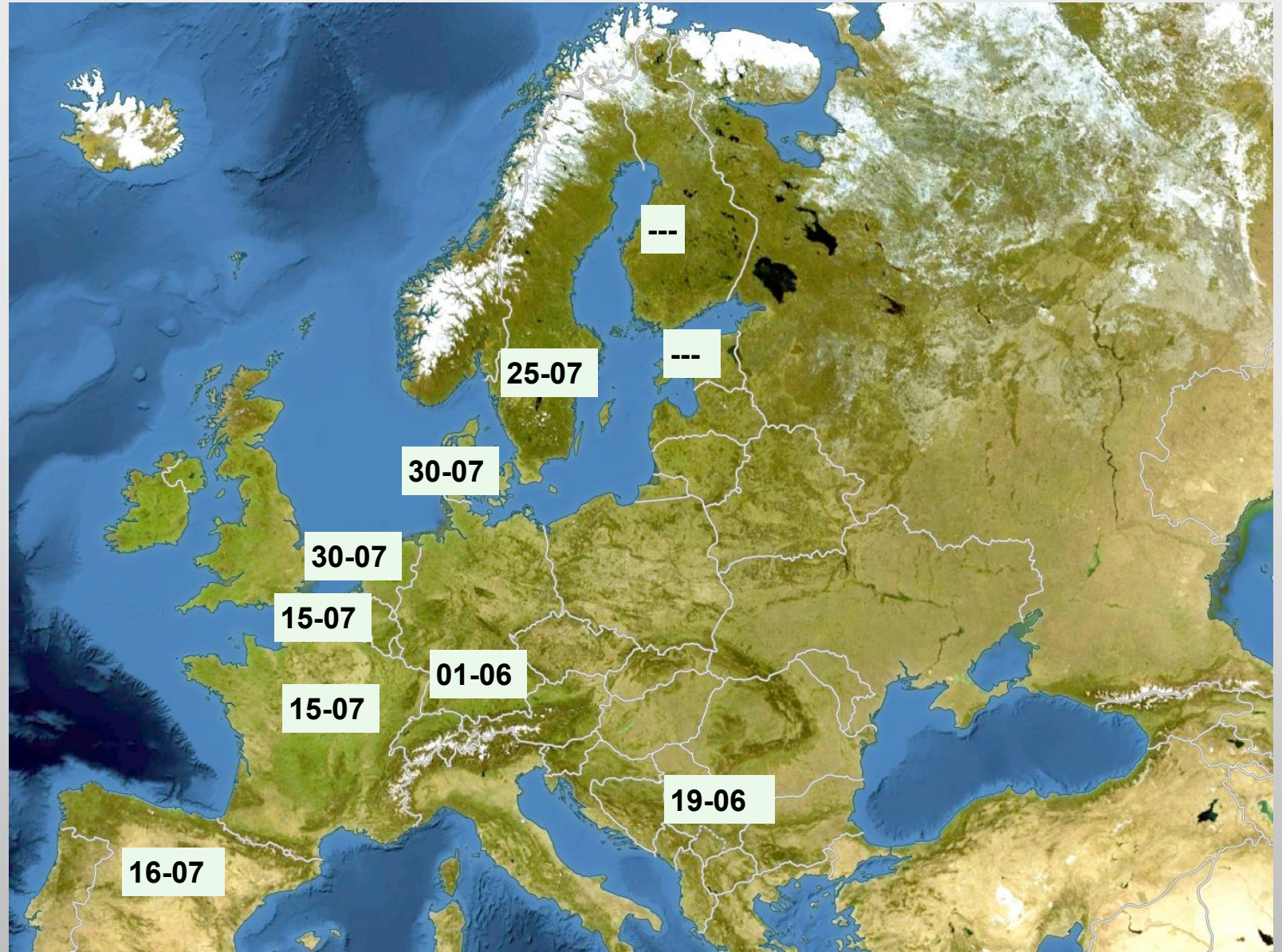
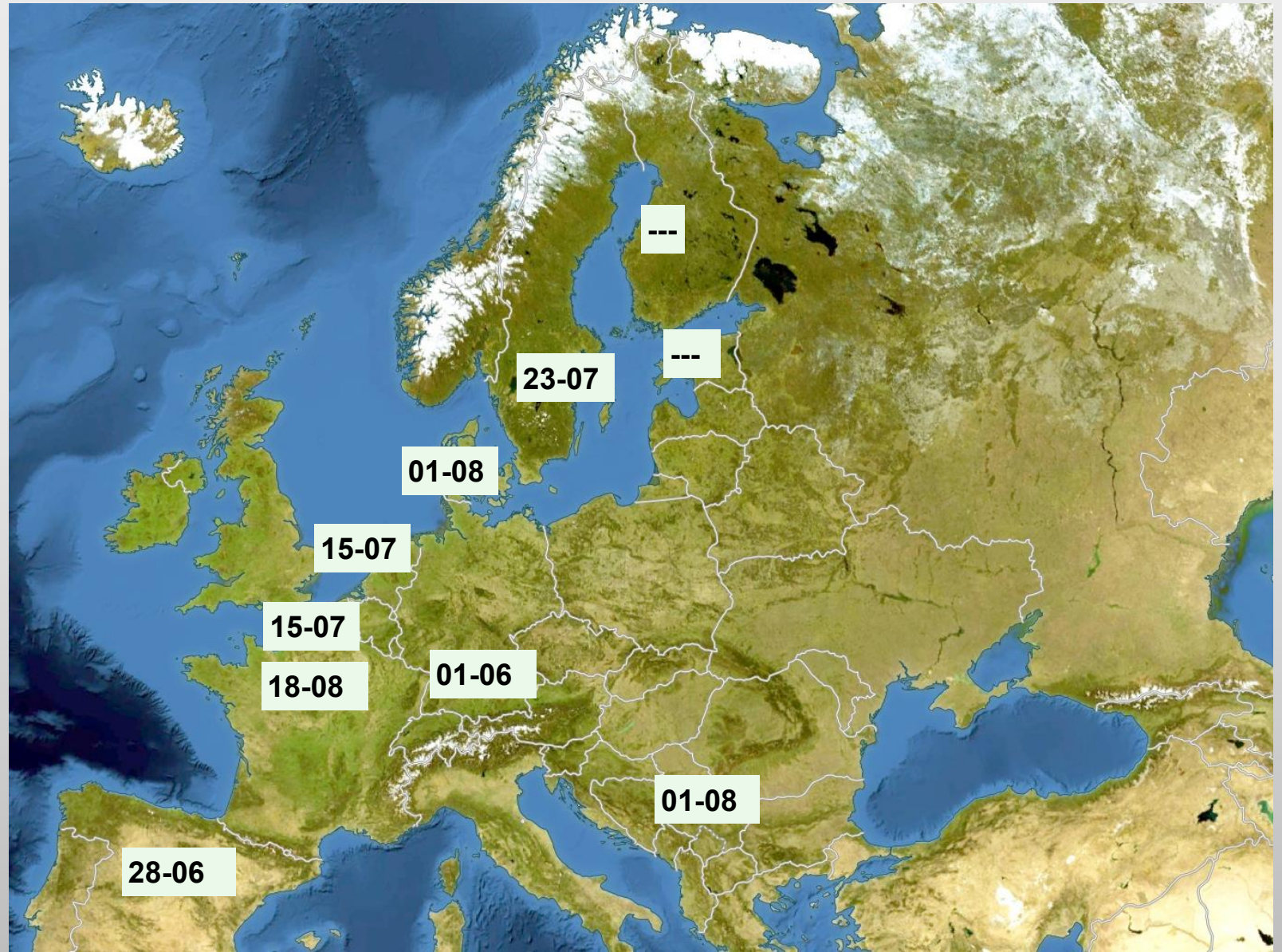
Epidemics and control of Early Blight, 2024 – 2025 in Europe

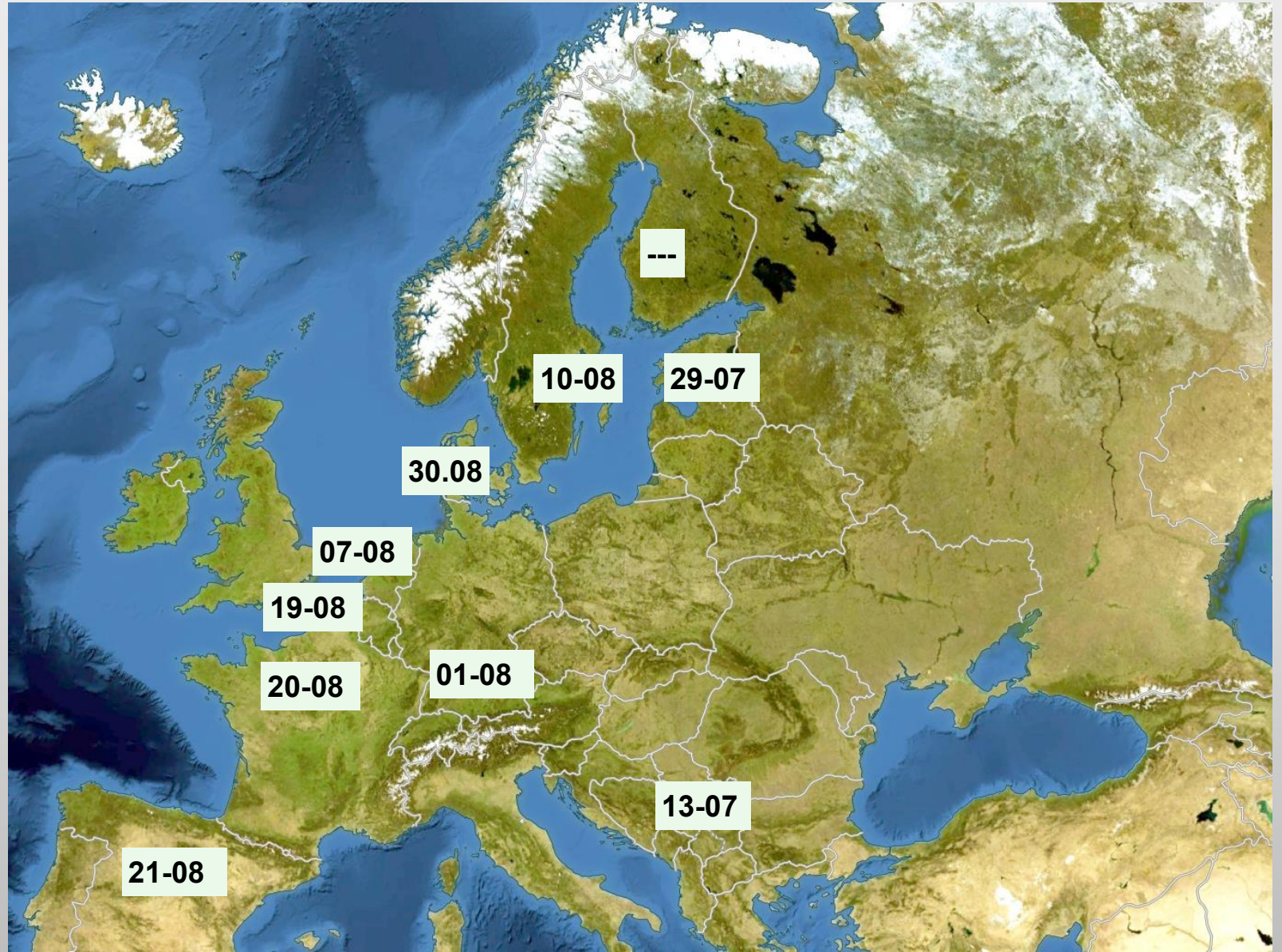
First Outbreak of Early Blight 2024



First Outbreak of Early Blight 2025



Disease epidemic of Early Blight 2024



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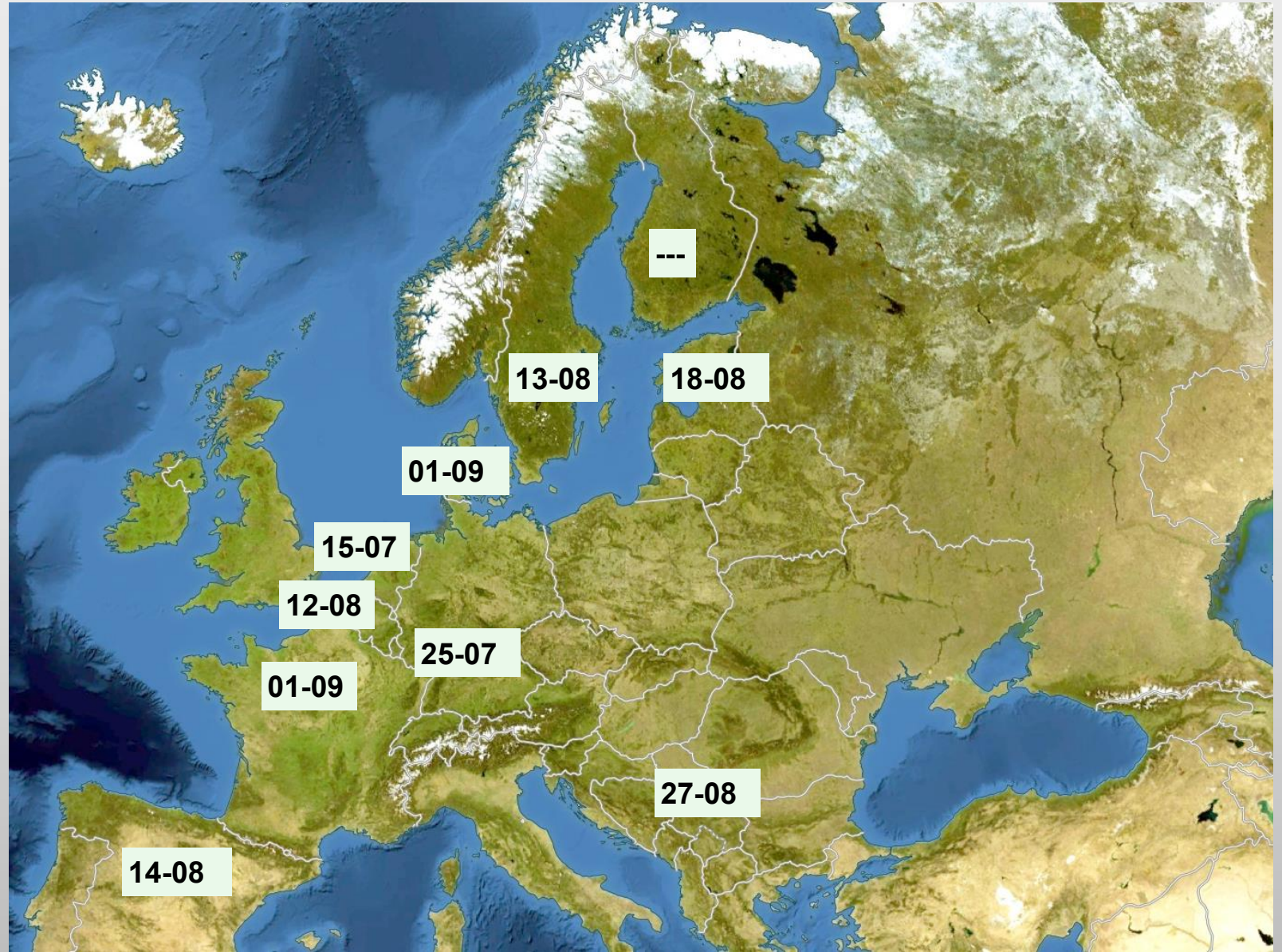


Fungicide sensitivity & occurence of mutants

QoI → F 129 L mutation (*A. solani*)

SDHI → different mutations in different subunits

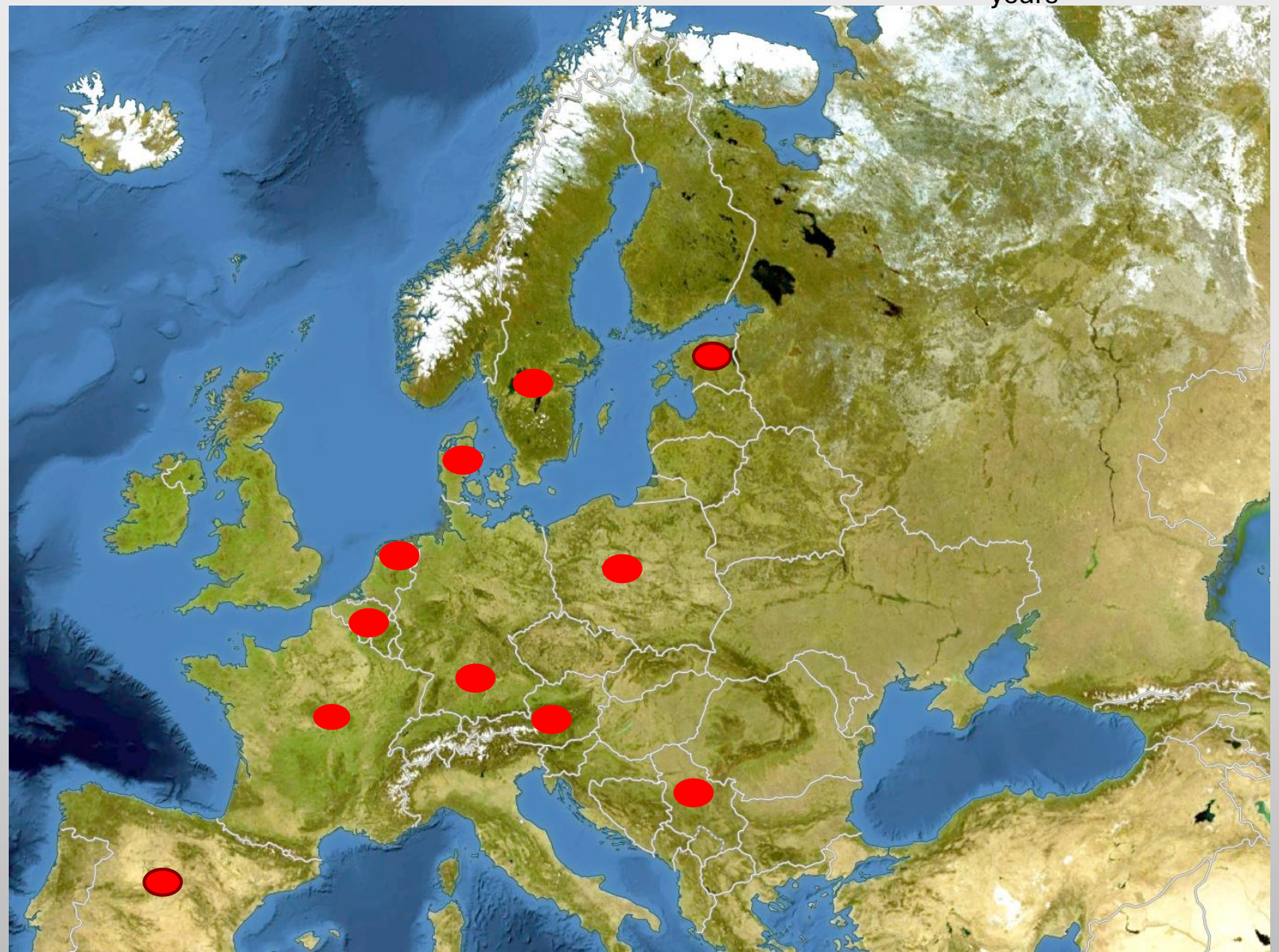
DMI → 2 different mutants

→ Reduced fungicide sensitivity

occurence of F129L mutants

F129L

Data: 2024 and previous years



occurence of SDHI mutants (general)

SDHI

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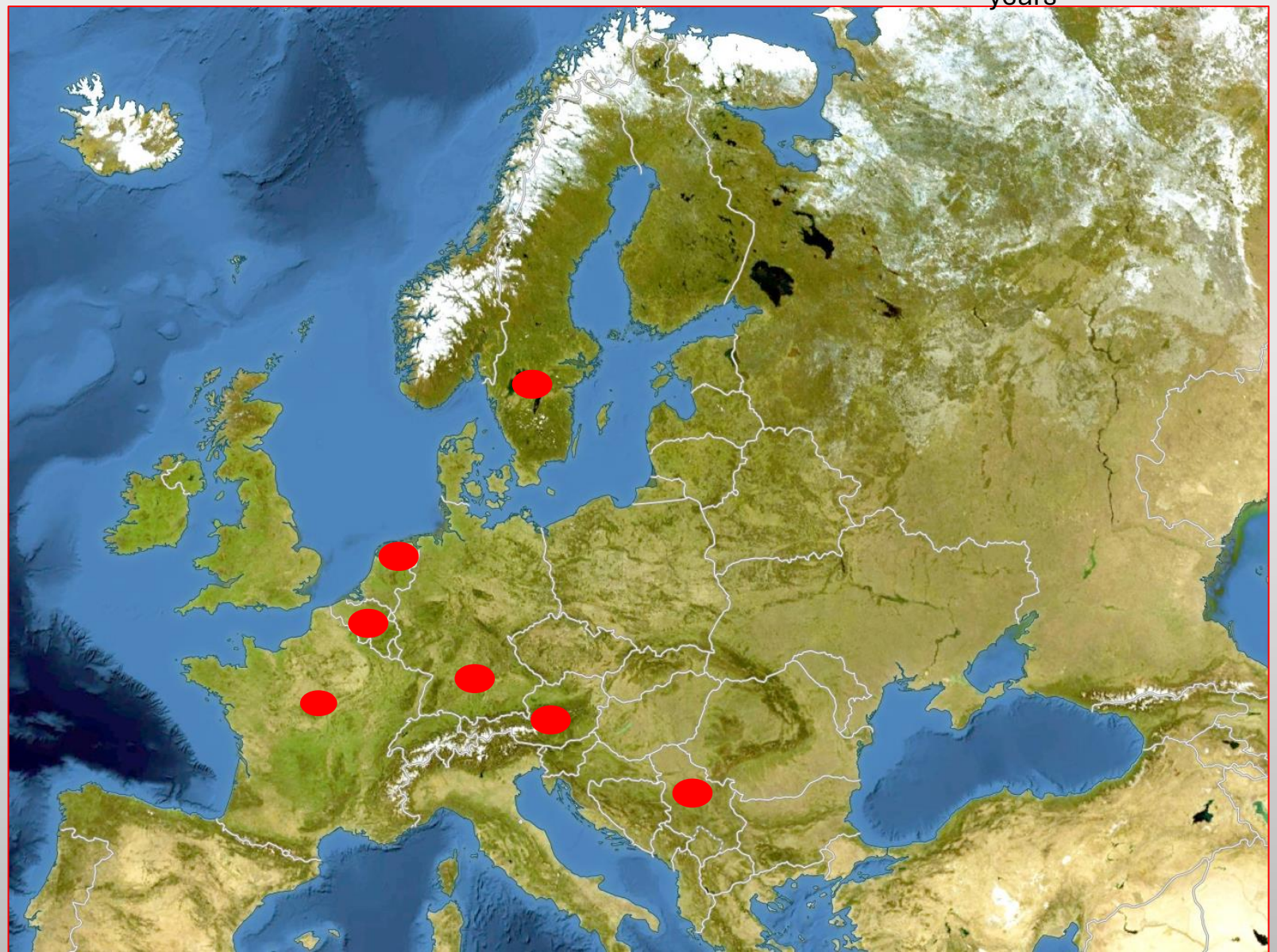

Fungicide sensitivity & occurence of mutants

QoI → F 129 L mutation

SDHI → different mutations in different subunits

DMI → 2 different mutants

→ EB project 2024 and 2025 → data presented by Gerd on Wednesday

observed EB tuber infections

Thank you for your attention !
And thanks to all country editors