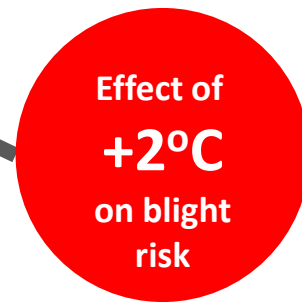


The background of the slide is a photograph of a rural landscape. In the foreground, there is a field of low-lying green plants, possibly potatoes, with some brown stalks visible. In the middle ground, there is a line of trees and a fence. The sky is a clear, bright blue with a large, bright sun in the upper left corner, creating a lens flare effect. A semi-transparent teal horizontal band is overlaid across the middle of the image, containing the title and authors' names.

Analysis of historical climate data for Ireland and its impact on Late Blight of potatoes

Joan de Lacey, Eoin Lettice

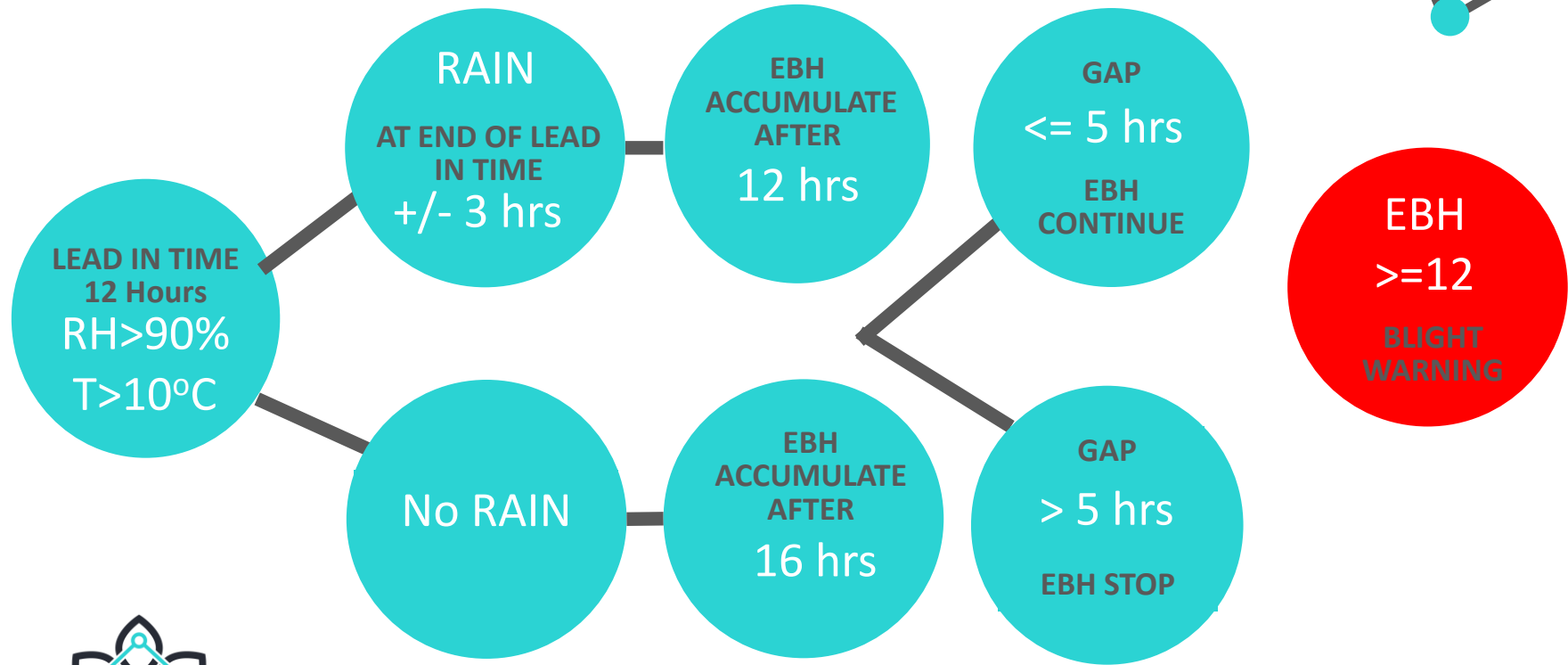
Potato Late Blight



4th Crop Worldwide
Acreage increasing

... threat to global food security.

Bourke's Irish Rules (revised)



Effective Blight Hours 1957 – 1981 (Keane, 1981)

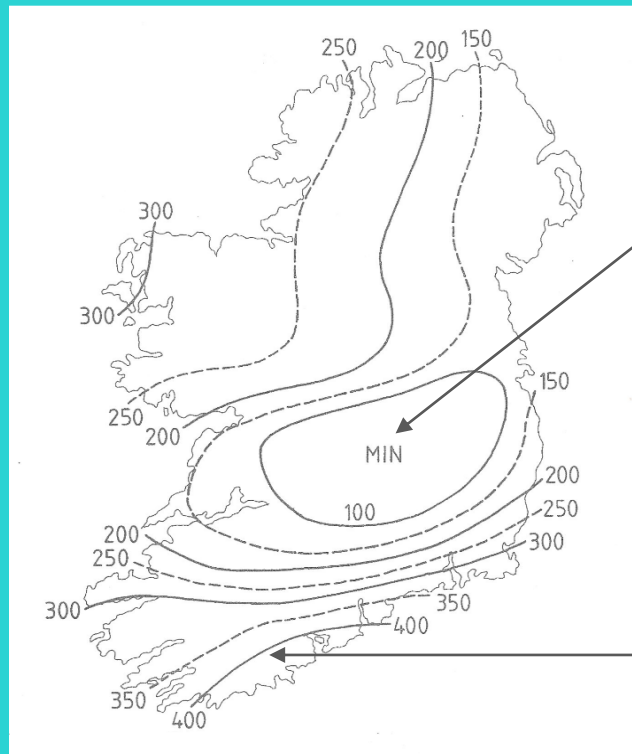
Annual blight risk

Low risk – Midlands

High risk - South Coast



BLIGHTLINK

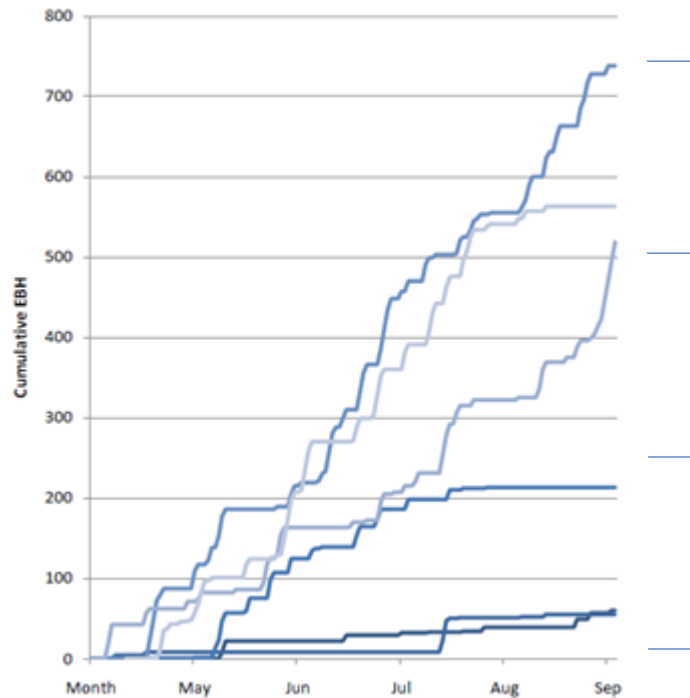


Spray to Blight Warning

Spray to calendar

Accumulated Effective Blight Hours 2010 – 2012 (de Lacey, 2014)

- 2010 Belfast
- 2011 Belfast
- 2012 Belfast
- 2010 Sherkin
- 2011 Sherkin
- 2012 Sherkin



Sherkin Island, West Cork

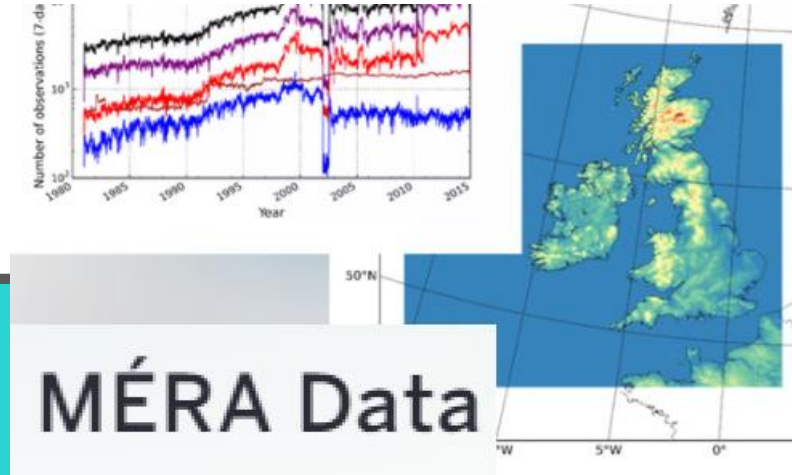
Newforge, Belfast

Coastal fog, mainland adjacent to Sherkin Island



... high humidity, blight favourable conditions.

Effective Blight Hours 1981 - 2016



...extending Keane's work of 1957 – 1981

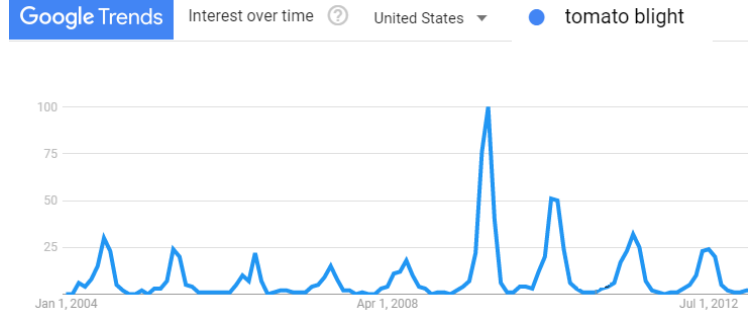
Application 1: Backyard growers

Case study - 2009 US Pandemic tomato blight



New York State cases of blight
Jun to Aug 2009.

13 States
North-east
and Mid Atlantic
region



“You say tomato I say agricultural disaster”

New York Times 17 July 2009

...reduce the severity of blight outbreaks.

Application 2: BlightLink

Inform the roll out of BlightLink



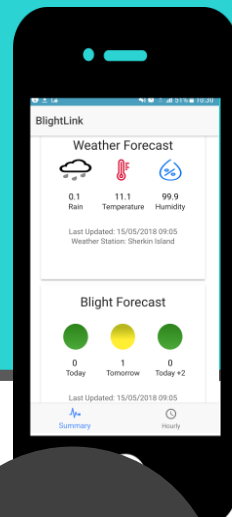
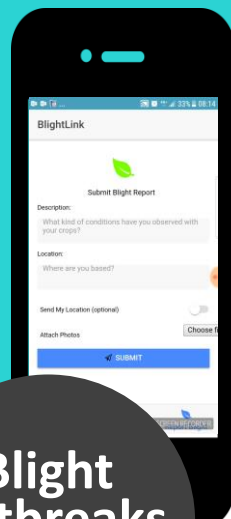
Flow of information



Users upload photos of blight



Blight risk algorithm



...reduce fungicide use in low risk regions.

Application 3: Climate change

Analysis of the impact of climate change on blight risk



BLIGHTLINK

... benchmark for future monitoring.



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