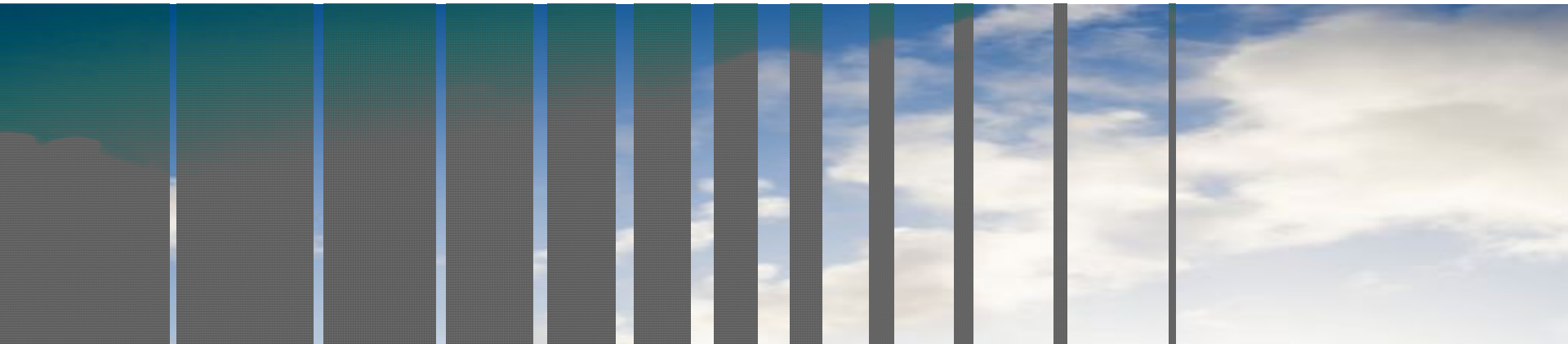




Netherlands Environmental Assessment Agency

Imidacloprid effects on bees ?!

Hans Visser, statistician

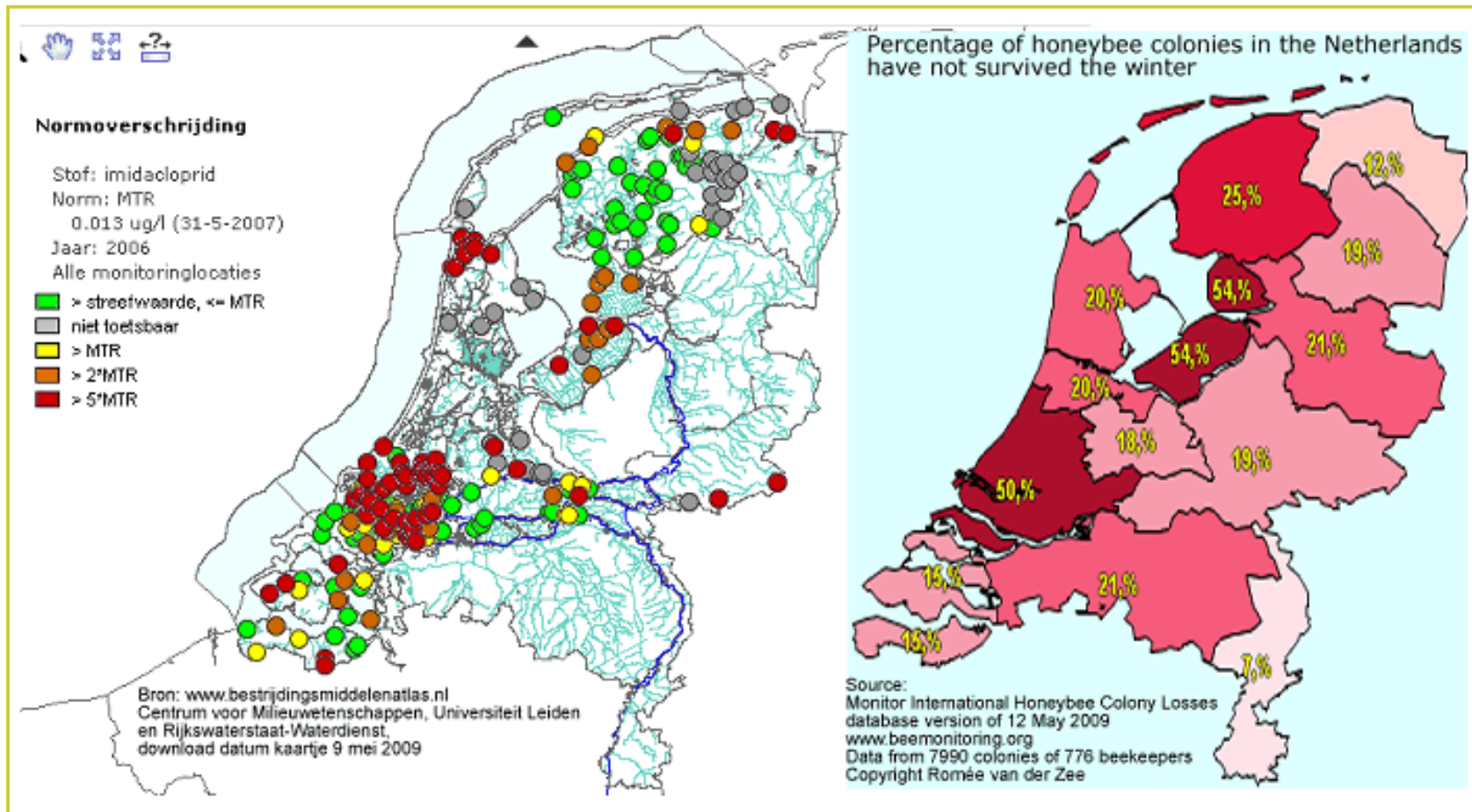


1 How to proof a causal relation?

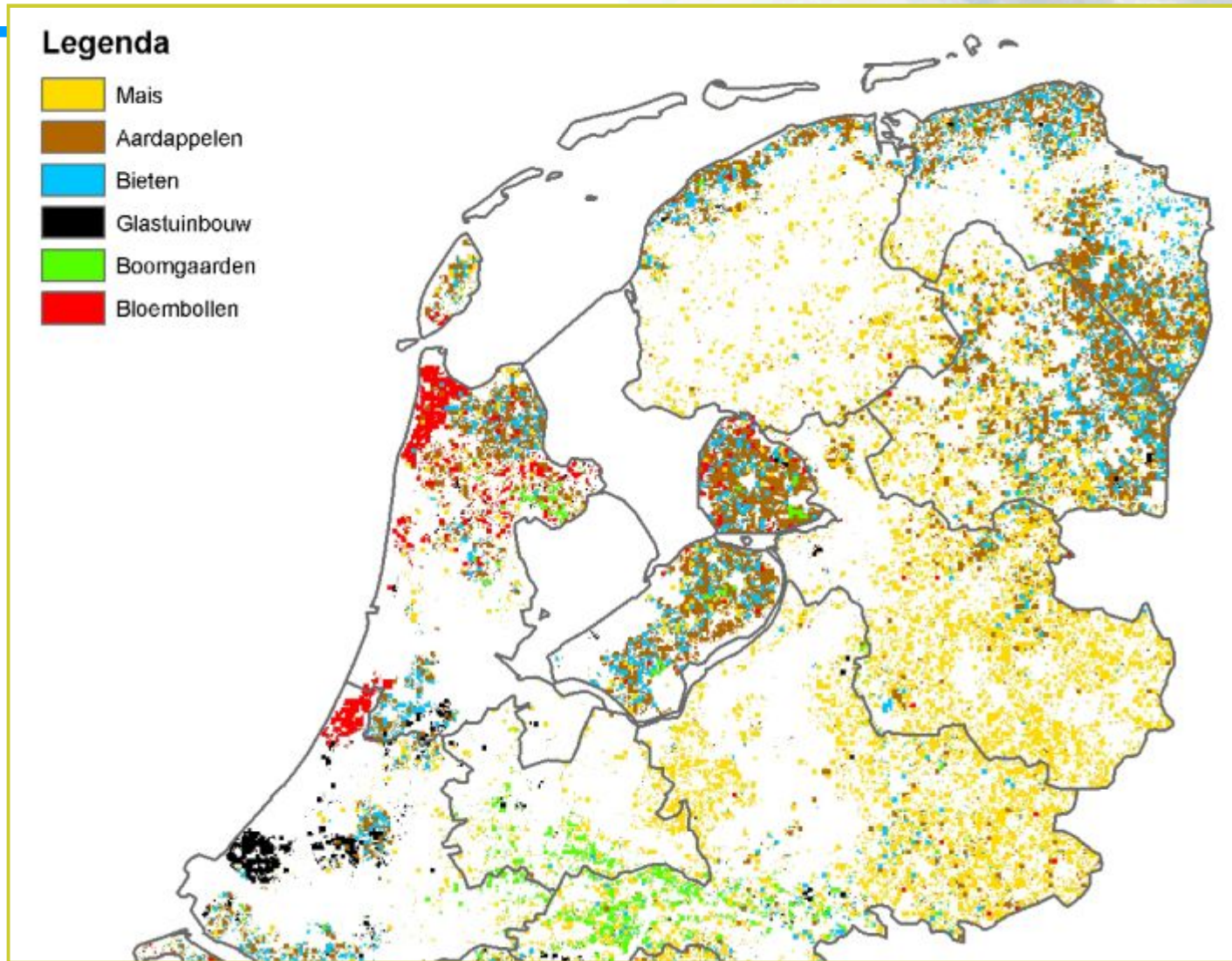
2

- **Spatial coherence between patterns**
- **Temporal coherence between time series**
- **Concentrations in bees**
- **Results in other countries**

2 Spatial patterns



Agriculture and use of imidacloprid



Use of Imidacloprid in the Netherlands

Year	number of farms	surface	total usage NL
1995	2381	5335 ha	668 kg
1998	6470	22631 ha	4047 kg
2000	8258	28976 ha	5473 kg
2004	8683	40007 ha	6377 kg
2008	will follow next October		

Time series of bees decline (nation wide)

6

- Who has such data ?
- Especially in France: are there improvements from 2003 onwards ?
- What is a normal decline in bee colonies ?
- GB: an annual series from 1976 onwards ?

4 Perhaps also relevant for macrofauna ?

- Split this map in to two periods

