







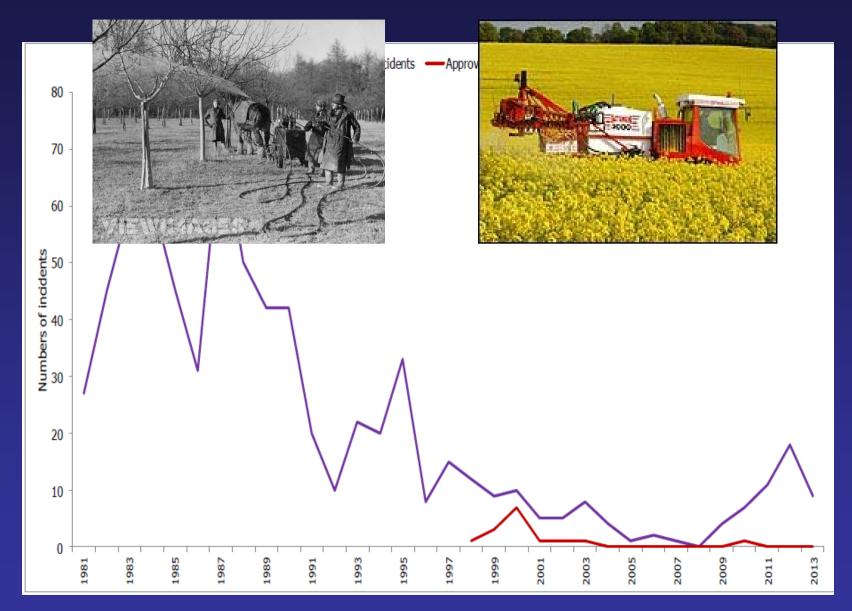
# **Decline of pollinators**

## COLOSS – currently 710 members from 89 countries

## Causes of pollinator decline:-

- Land use changes
- Pests and diseases
- Poor beekeeping techniques
- Environmental factors including: o pesticides

### Pesticides and bees...



Carreck & Ratnieks, 2014. Data from MAFF / Defra.

### Oilseed rape and bees...

- By far the most commonly reported nectar source by beekeepers (Williams *et al*, 1993; Carreck *et al*, 1997).
- By far the crop to which members of the Bee Farmers Association move honey bee colonies (Carreck *et al*, 1997).
- "CSI Pollen" project in progress.
- Honey bee colonies tend to "build up" on winter sown rape and produce honey from spring sown rape.
- Rape honey is bland, but plentiful.

### Consequences of neonicotinoid moratorium on bees...

Growers will use alternative compounds.

- Are these more or less harmful for bees?
- We don't know.

Growers will reduce area of oilseed rape?

- What will the consequence of this be?
- We don't know.