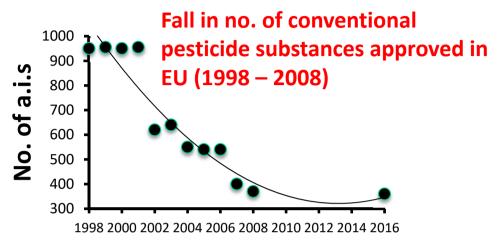
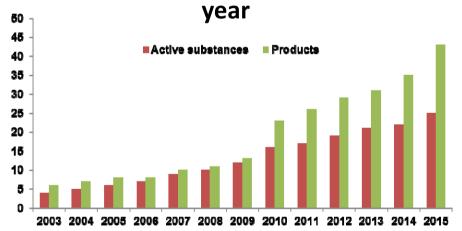
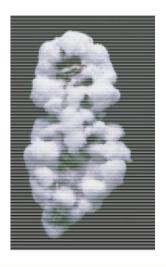
Biopesticides and IPM

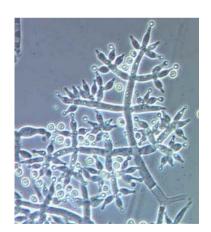




Cumulative No. approved biopesticides in UK (2003-2015) (CRD)

- Microbes; plant extracts; semiochemicals.
- Curative & preventative treatments; protected crops.
- > 2000 products worldwide.
- Annual growth 15% (3% for conventional pesticides).





Biopesticides: the good stuff

- Low risk, no residue, low re-entry interval.
- Low development costs.
- Reduce selection pressures on pesticides.
- Attractive biological features: root colonisation, growth stimulation.







Biopesticides: challenges

- Some have proven potential in IPM but performance of others is weak or sub-optimal.
 - Expensive, variable efficacy, less robust.
 - Reasons for poor performance not always
 known but main suspects are ...
 - Application; environmental factors;
 understanding speed of kill; effective dose;
 compatibility.
- Growers are wary of them.



