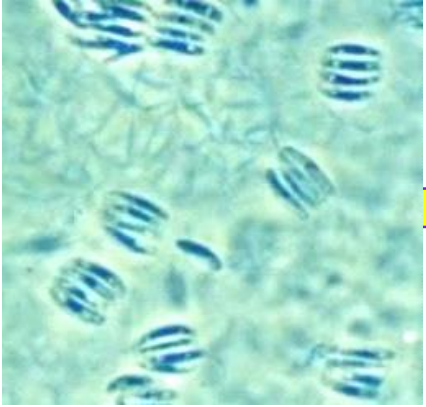


Combating the stealthy pathogen: *Pyrenopeziza brassicae*

Jon West, Rothamsted Research



Air-borne
ascospores



(summer-autumn)

First signs months
after infection



(December)

Multiple cycles of
rain-splashed conidia



(winter-spring)

Winter-kill, stunting,
stem infection



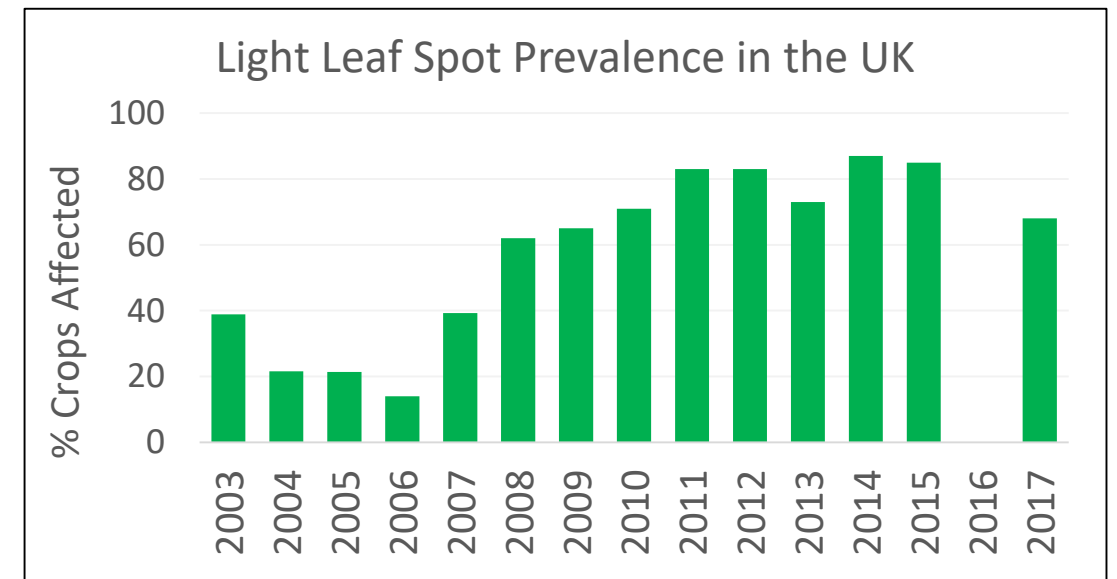
(winter-summer)

Pod infection – early
senescence and pod-shatter



(early summer)

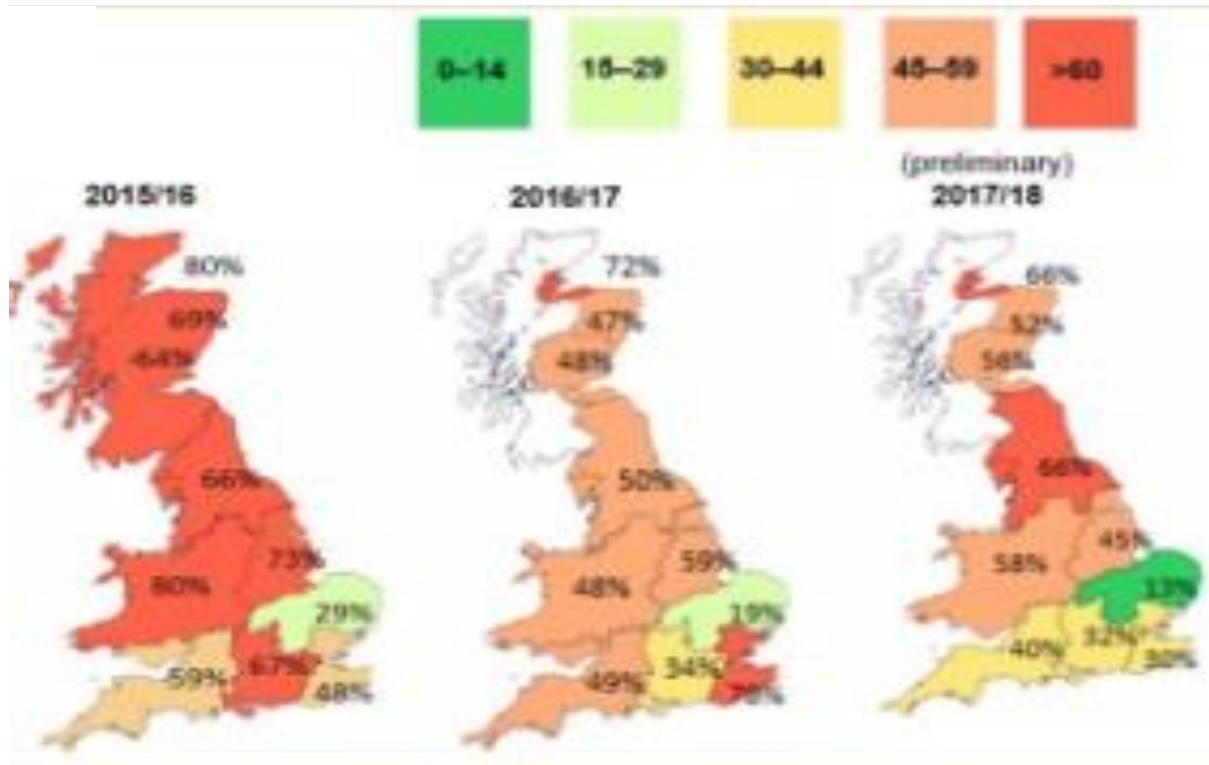
- Light leaf spot (*Pyrenopeziza brassicae*) affects winter oilseed rape and some vegetable brassicas
- Polycyclic disease infecting leaves, stems & pods
- UK losses > £100m per season (more than Phoma)
- Severity of LLS has increased in recent years



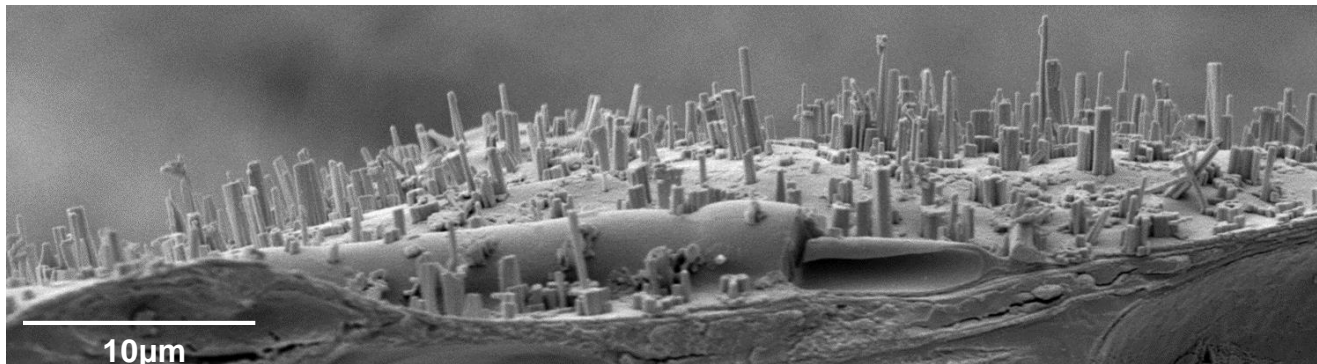
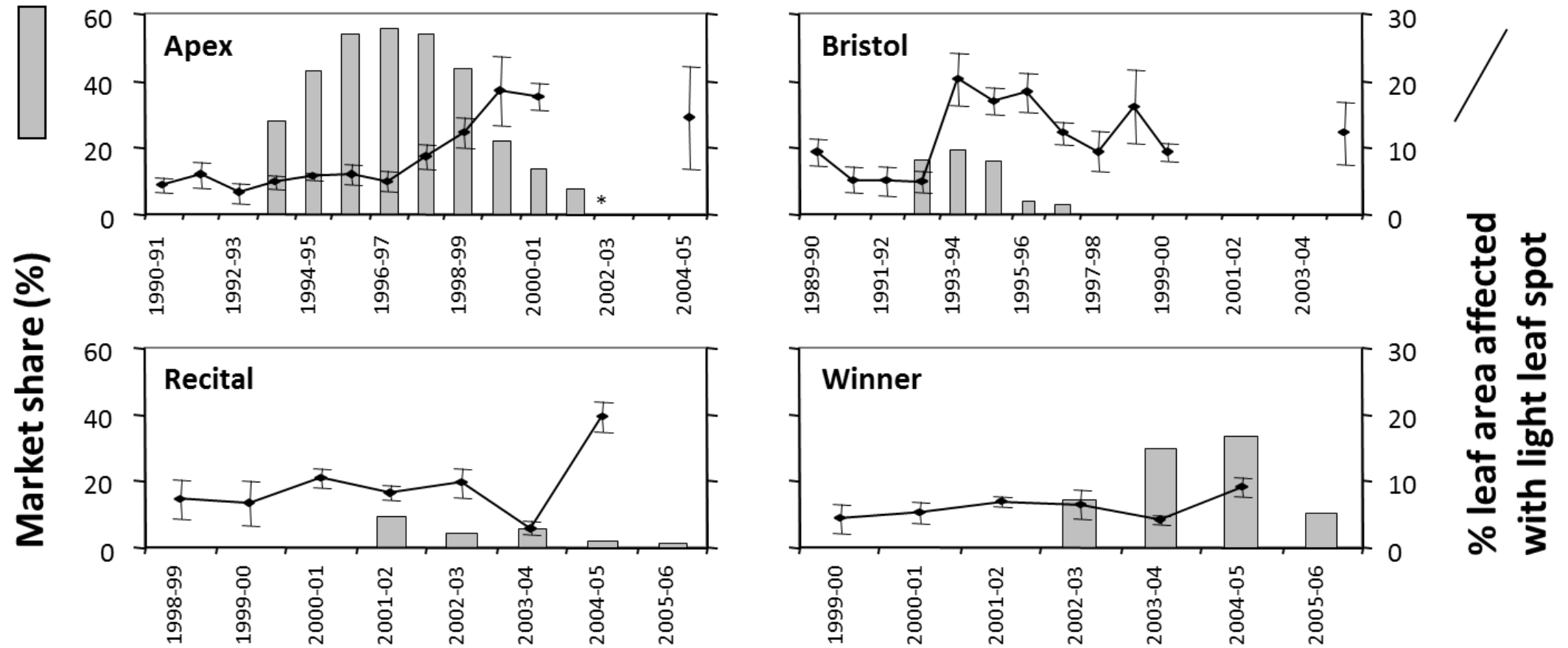
Forecasts help growers decide fungicide strategy



But fungicide efficacy has reduced in recent years



Changes in severity of light leaf spot (mostly RL data) in relation to market share of oilseed rape cultivars



Susceptible Phenotype



218-11 (susceptible parent)

Sexual stage after incubation



Resistant Phenotype

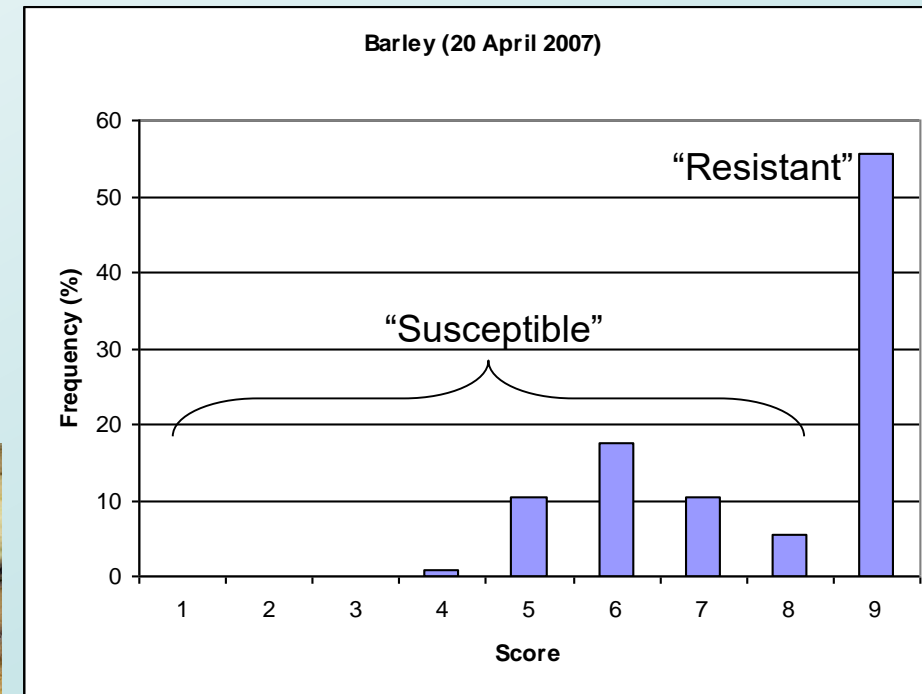


Imola (resistant parent)

Sexual stage only on veins

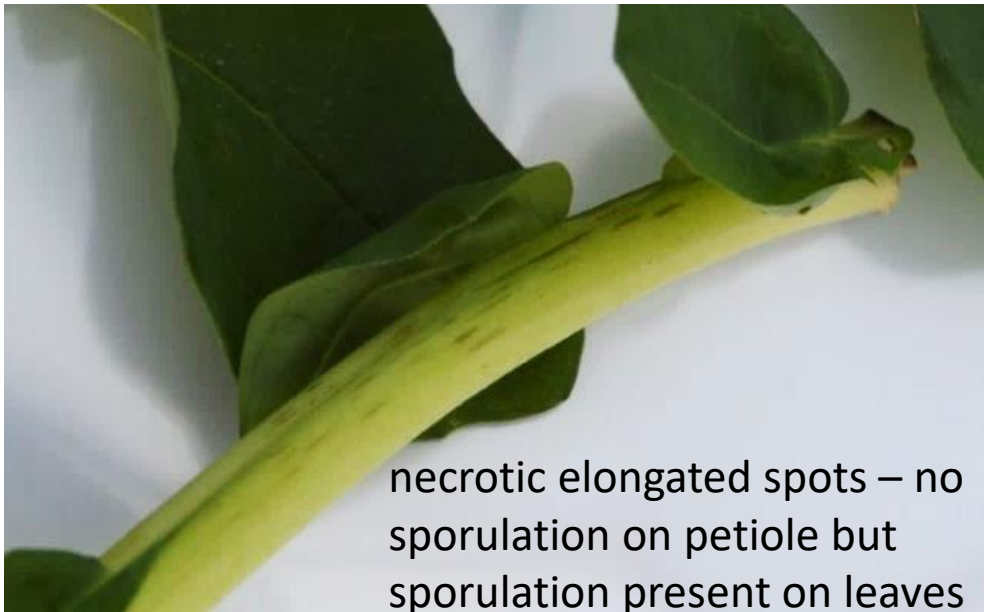


Field Experiments



Roughly 50:50 – suggests one gene but range of severity indicates varying partial resistance in the susceptible lines

New experiments 2017-18: infection evident on whole leaves but on some lines only on petioles and veins or only on leaf lamina



necrotic elongated spots – no sporulation on petiole but sporulation present on leaves



Sporulation associated with veins



sporulation on all leaf parts