UKCPVS stakeholder meeting

Introduction

John Lucas

Rothamsted Research

The need for disease surveillance

Yellow rust (*Puccinia striiformis*) on cereals - emergence of new biotypes, including recombinant pathotypes.

The need to monitor more than one disease

Brown rust

Septoria

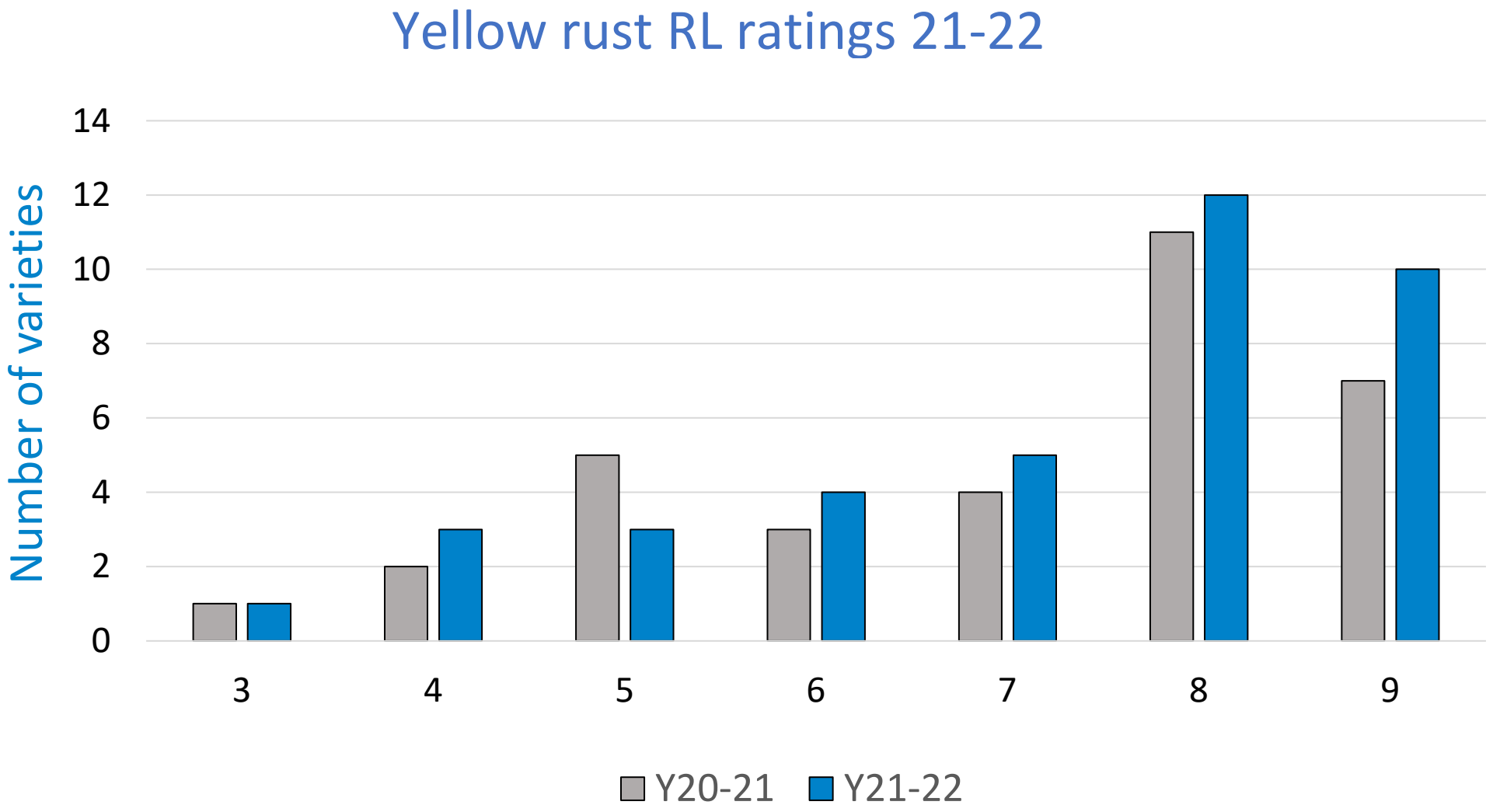
Mildew

Available tools for disease management

- Agronomic (e.g. sowing date)
- Resistant varieties
- Fungicides

Constraints

- Pathogen evolution for virulence and fungicide resistance


Yellow rust RL ratings 21-22
Number of varieties
14
12
10
8
6
4
2
0
3
4
5
6
7
8
9
Y20-21
Y21-22

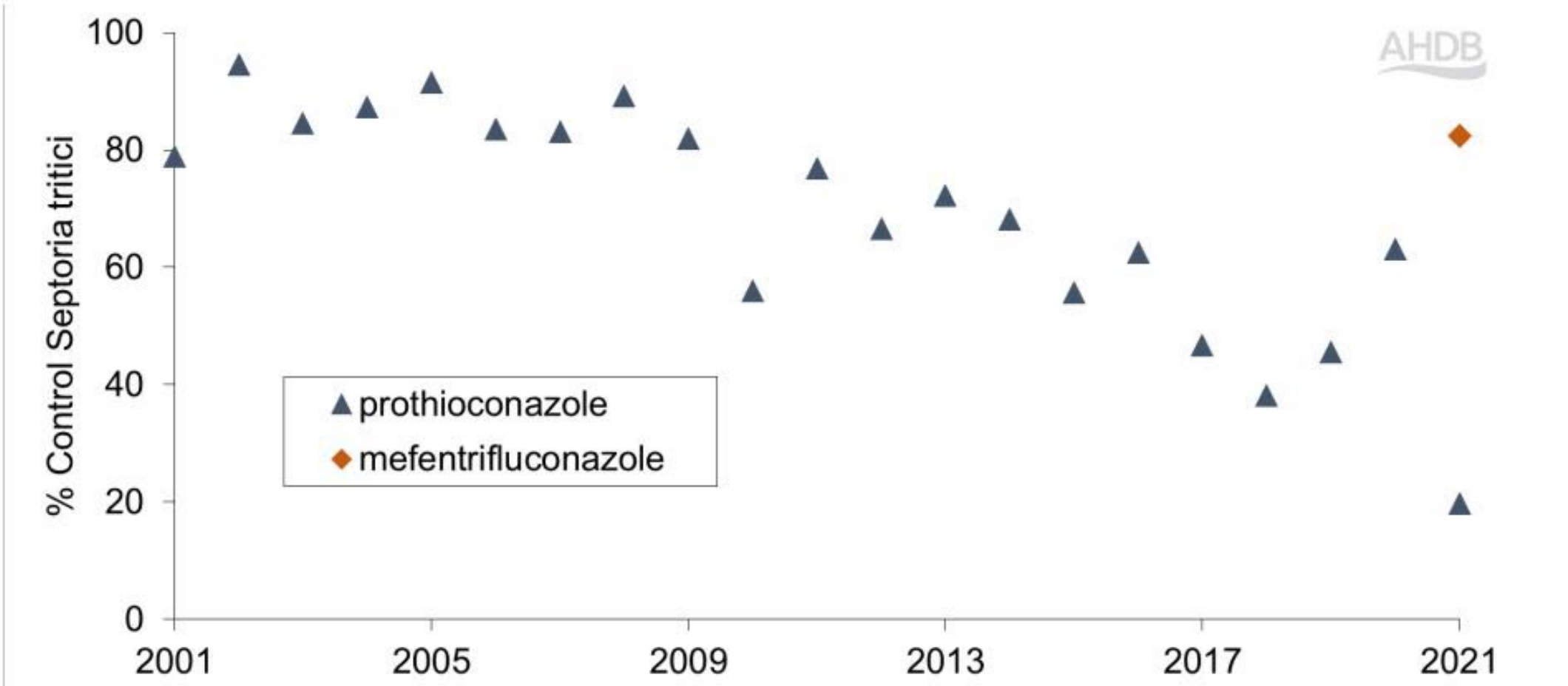
Fungicides

Loss of some actives
Multisite – chlorothalonil
Single site – epoxiconazole

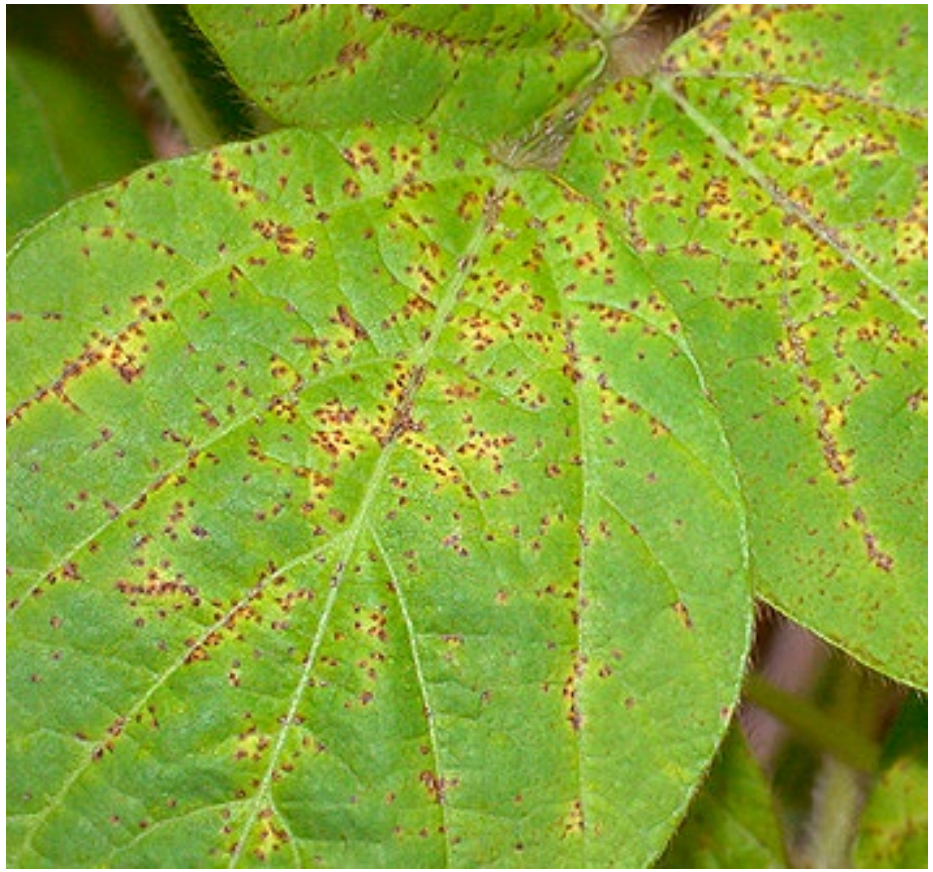
New or re-introduced actives
Multisite – folpet
Single site – Mefentrifluconale (Revysol) and QII (Fenpicoxamid)

DMI (azole) septoria field activity (2001–21)

Mean control (%) achieved by a full dose in each season



However…



Asian soybean rust (*Phakopsora pachyrhizi)*

Research Article

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(wileyonlinelibrary.com) DOI 10.1002/ps.6380

High frequency of fungicide resistance-associated mutations in the wheat yellow rust pathogen *Puccinia striiformis* f. sp. *tritici*

Nicola M Cook,[a] Soonie Chng,[b] Tamsin L Woodman,[a] Rachael Warren,[b] Richard P Oliver[c] and Diane GO Saunders[a*]

"These findings confirm that cereal rust species are not immune to fungicide resistance and indicate that appropriate screening regimes and resistance management strategies are urgently needed"

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