Fungicide Performance in Wheat 2013

Printed material

Note that printed material contains data only up to a full label dose rate. Curves therefore appear slightly different to platform presentation slides but show the same results.

The Sites 2013

1	ADAS (Rosemaund)	*Septoria tritici (5 spray timings)*
2	NIABTAG (Andover)	*Septoria tritici (double trial)*
3	SRUC (Fife)	*Septoria tritici (double trial)*
4	ADAS (Terrington)	Yellow rust
5	NIABTAG (Cambridge)	Brown rust
6	SRUC (Fife)	Mildew
7	Teagasc (Carlow)	*Septoria tritici*

Treatment list 2013 – Septoria tritici sites

Product	Hereford	Fife	Andover	Ireland
Bravo	Timings only	0.5 only	0.5 only	0.5 only
Ignite / Opus Max	✓	✓	✓	✓
Proline	✓	✓	✓	✓
Phoenix		✓	✓	✓
Imtrex	✓	✓	✓	✓
Vertisan	✓	✓	✓	✓
Aviator	✓ 235	✓ 235	✓235	✓ 225
Adexar	✓	✓	✓	✓
Vertisan + Ignite	Rates only	✓	✓	

Penthiopyrad + Ignite

HGCA 08 - 2012

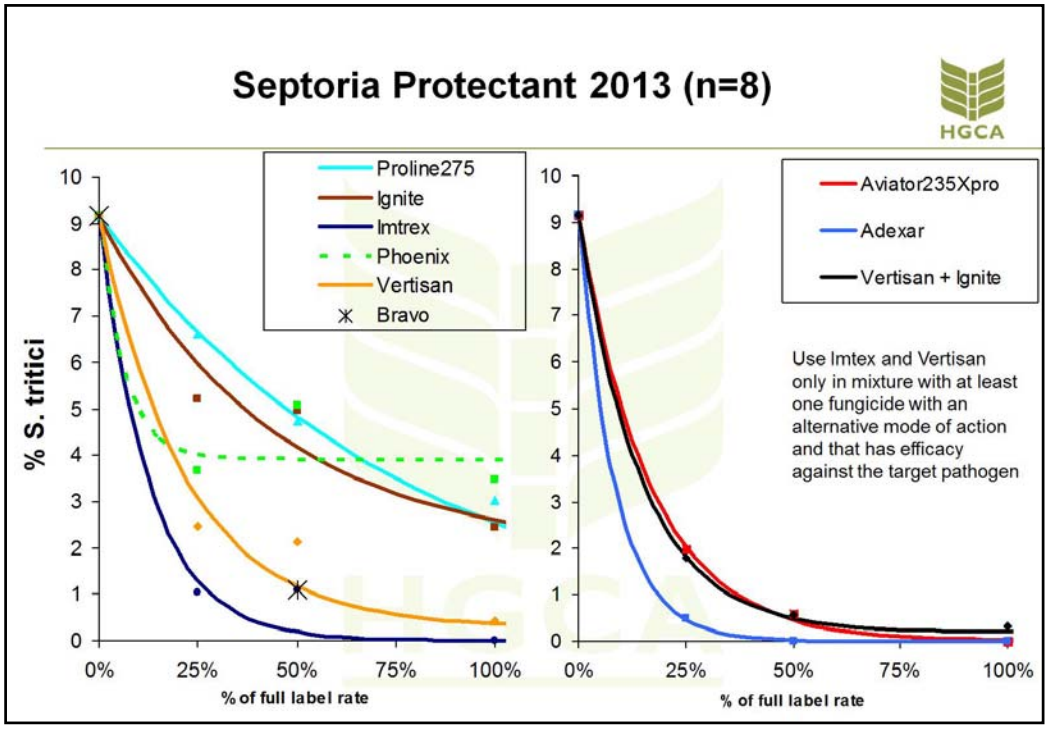
Full rate tested =
1.25l/ha penthiopyrad (Vertisan) + 1.25l/ha Ignite

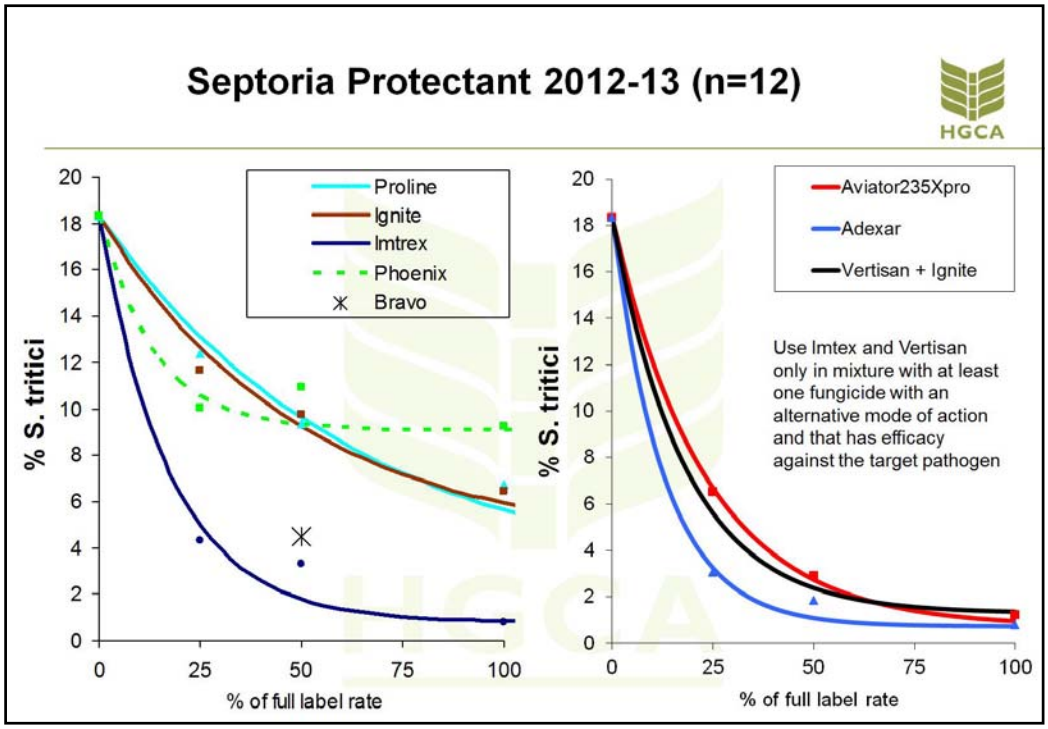
HGCA 10 - 2013

Full rate tested =
1.5 l/ha penthiopyrad (Vertisan) + 1.5 l/ha Ignite

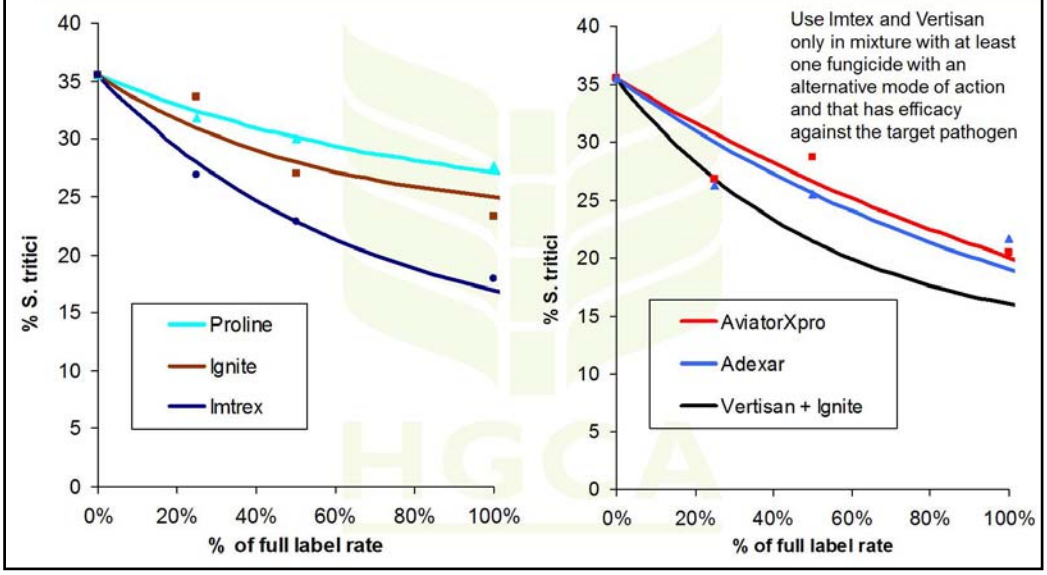
Disease data from 2013

	Target timing	S. tritici Eradicant	S. tritici Protectant	Yellow Rust	Brown Rust	Powdery Mildew
Hereford	GS 37		✓			
Andover T1	GS32		✓			
Andover T2	GS39		✓			
Fife T1	GS32	✓	✓			
Fife T2	GS39		✓			
Ireland	GS32		✓			
Kings Lynn	GS 39		✓	✓		
Fife (mildew)	GS 32		✓			
Cambridge	GS39					


Septoria Protectant 2013 (n=8)
HGCA
% S. tritici
Proline275
Ignite
Imtrex
Phoenix
Vertisan
Bravo
Aviator235Xpro
Adexar
Vertisan + Ignite
Use Imtex and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen
% of full label rate
% of full label rate


Septoria Protectant 2012-13 (n=12)
HGCA
% S. tritici
Proline
Ignite
Imtrex
Phoenix
Bravo
Aviator235Xpro
Adexar
Vertisan + Ignite
Use Imtex and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen
% of full label rate
% of full label rate

Septoria eradicant data 2012 – 2013 (n=5)



Rusts 2013

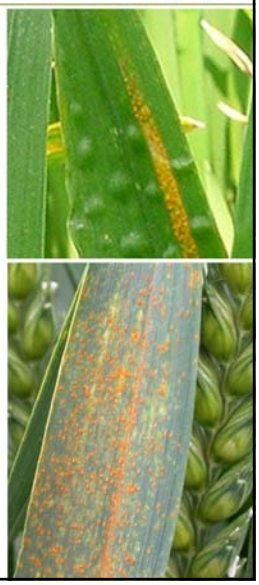
Last season…

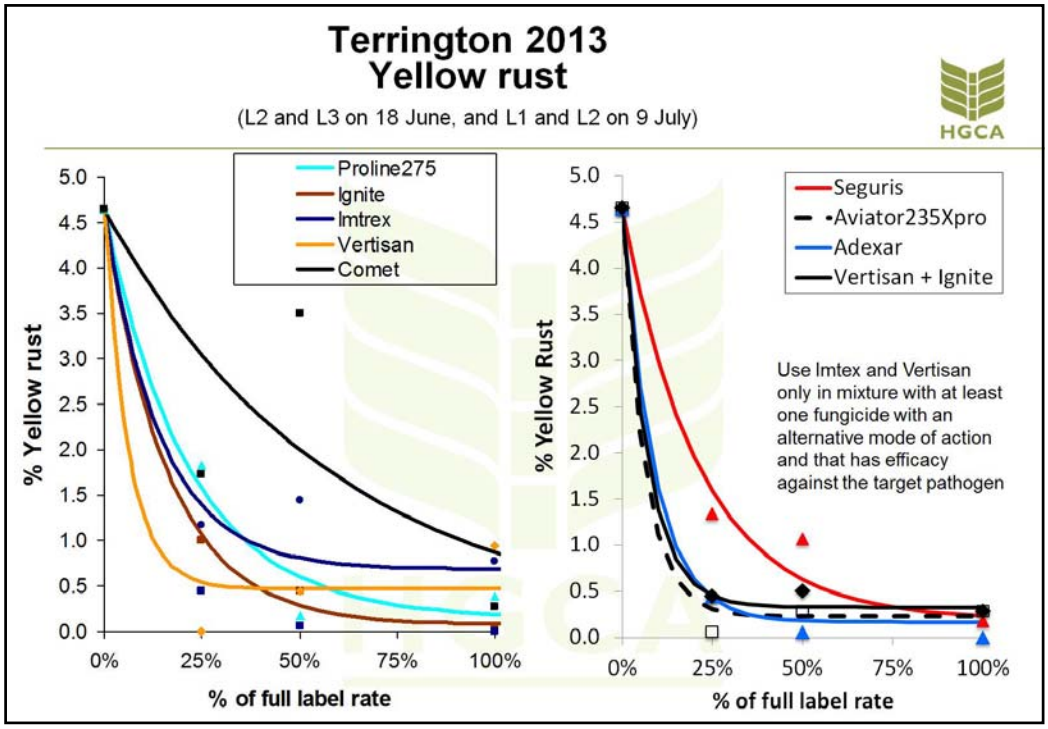
Yellow rust

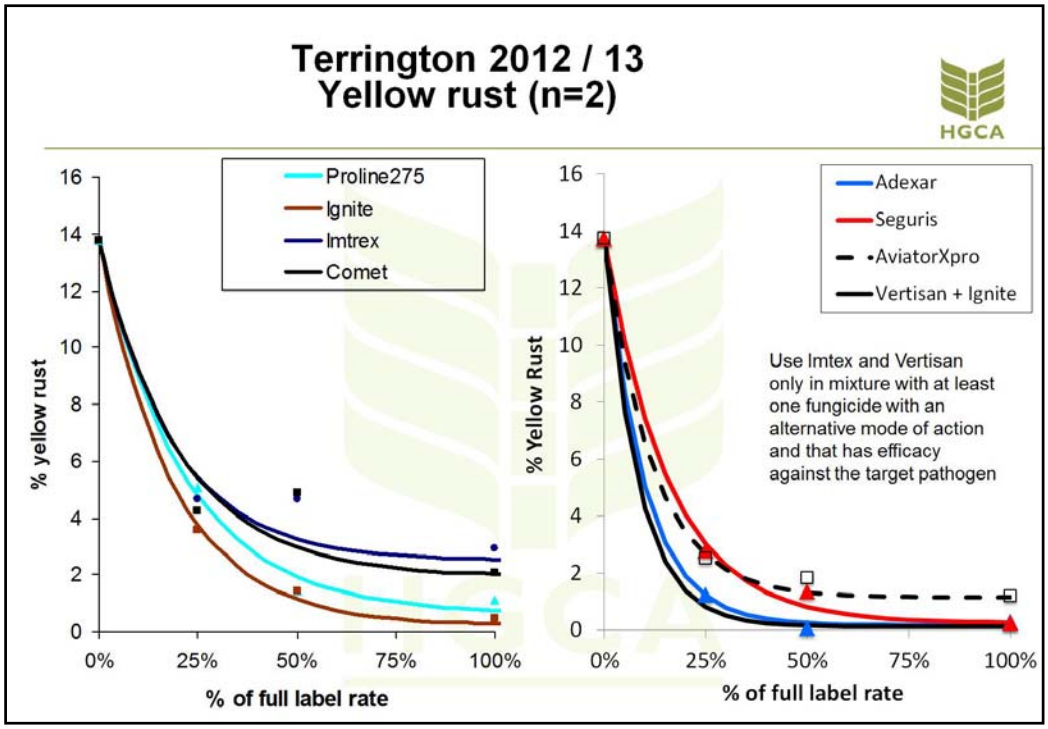
- Yellow rust epidemics delayed by cold March in 2013.
- Still a major issue in Oakley, other susceptible varieties include: Solstice, Gallant, KWS Kielder and Viscount

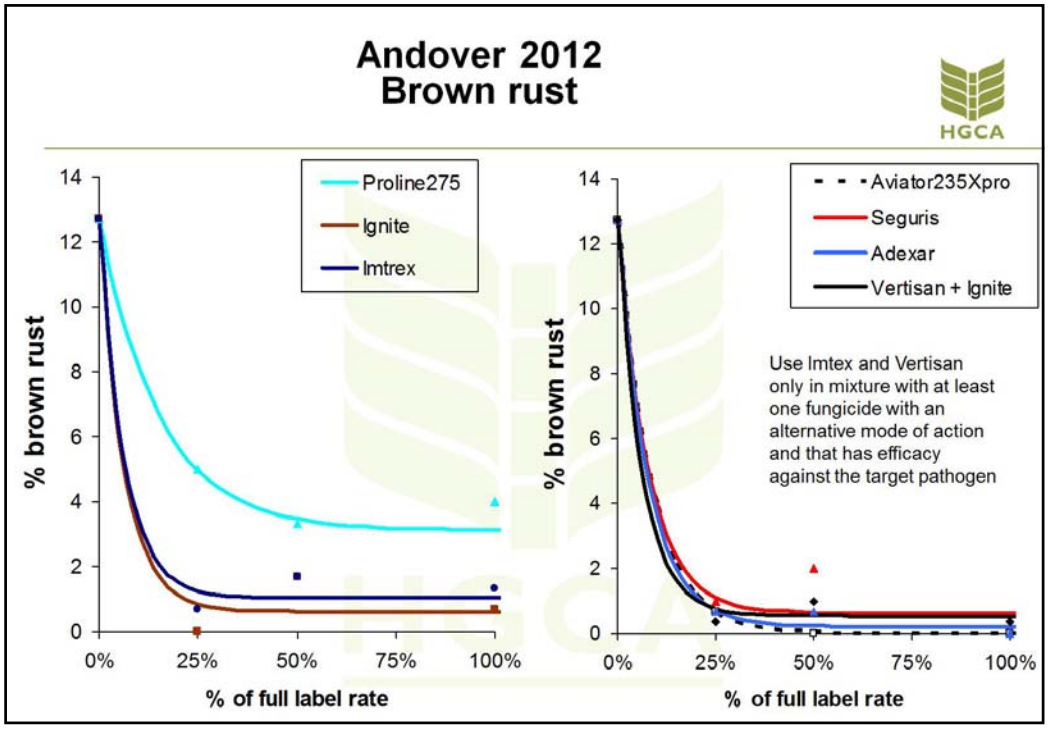
Brown rust

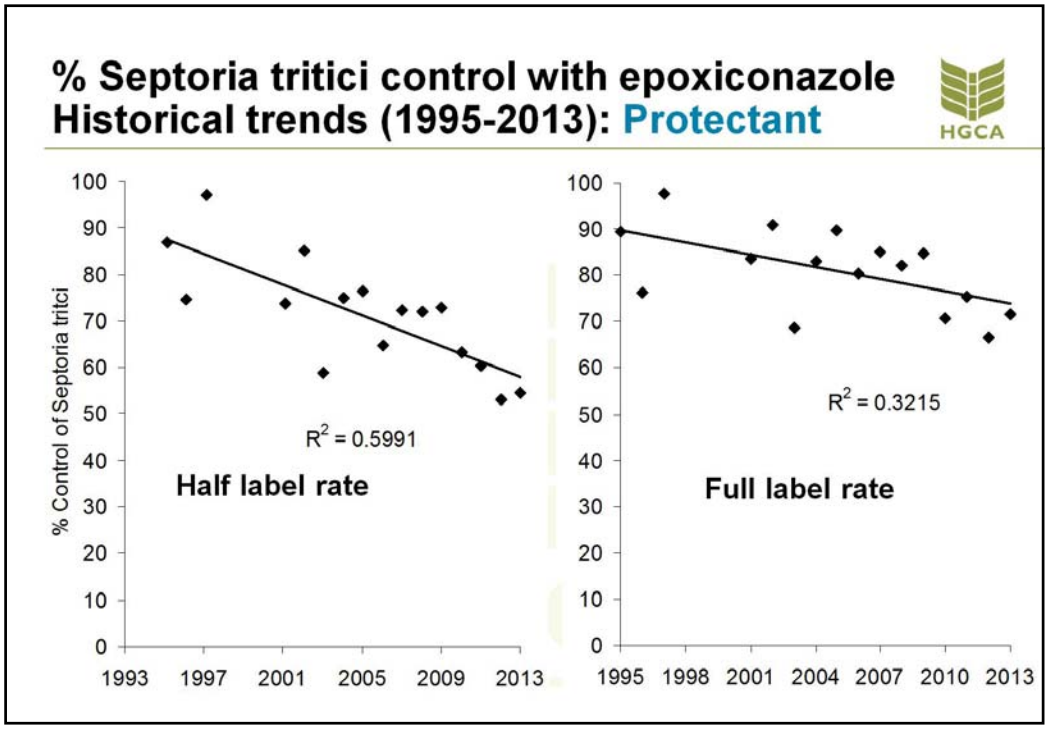
- No new data from FP trials in 2013 (cold spring).
- Over 50% of RL varieties rated 5 or less for brown rust.
- Winter conditions will determine risk for 2014



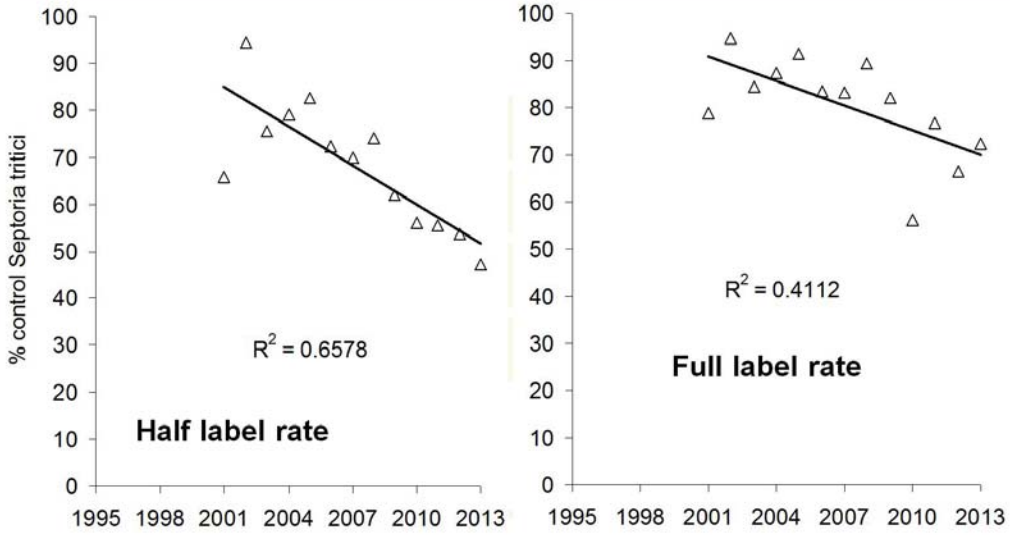

Terrington 2013
Yellow rust
(L2 and L3 on 18 June, and L1 and L2 on 9 July)
HGCA
Proline275
Ignite
Imtrex
Vertisan
Comet
% Yellow rust
% of full label rate
Seguris
Aviator235Xpro
Adexar
Vertisan + Ignite
Use Imtex and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen
% Yellow Rust
% of full label rate


Terrington 2012 / 13
Yellow rust (n=2)
HGCA
Proline275
Ignite
Imtrex
Comet
% yellow rust
% of full label rate
Adexar
Seguris
AviatorXpro
Vertisan + Ignite
Use Imtex and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen
% Yellow Rust
% of full label rate

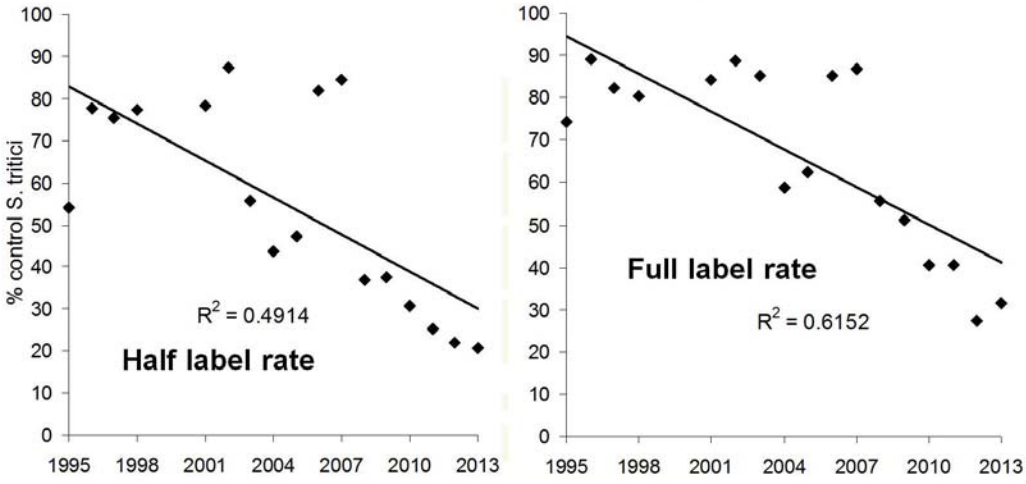

Andover 2012
Brown rust
HGCA
% brown rust
% of full label rate
Proline275
Ignite
Imtrex
Aviator235Xpro
Seguris
Adexar
Vertisan + Ignite
Use Imtex and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen


% Septoria tritici control with epoxiconazole
Historical trends (1995-2013): Protectant
HGCA
% Control of Septoria tritci
R2 = 0.5991
Half label rate
R2 = 0.3215
Full label rate

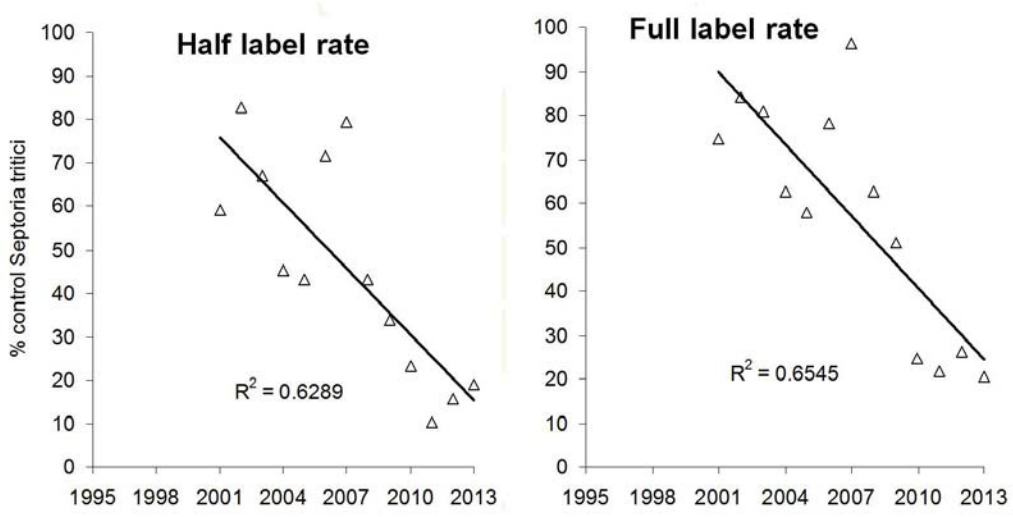
% Septoria tritici control with prothioconazole Historical trends (2001-2013): Protectant



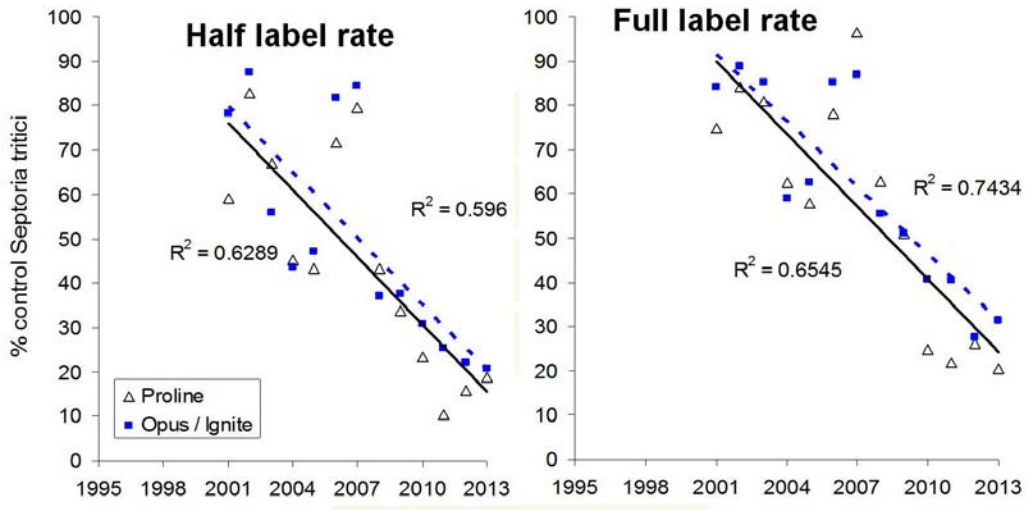
% Septoria tritici control with epoxiconazole Historical trends (1995-2013): Eradicant



% Septoria tritici control with prothioconazole Historical trends (2001-2012): Eradicant



Opus and Proline Eradicant / curative activity (same year span)



Key Messages

Septoria tritici
In protectant situations, half rates of the best azoles provided less than 50% control, all SDHI + azole mixes gave 91-99% control.

- Solo SDHI's very active – but azoles and multisite partners are important to broaden activity and reduce resistance risk.
- Phoenix adds some useful protectant activity.
- CTL very effective in a protectant situation.
- Yields responses in 2013 trials were low (<0.5/ha)

Yellow rust
SDHI's and strobilurins useful but less active than azoles.

Stewardship of SDHI fungicides

- Maximum of 2 SDHI fungicide-containing sprays. (statutory requirement)
- Always use SDHI fungicides in mixture with at least one fungicide from an alternative mode of action group which has efficacy against the target pathogen(s).
- Tank mixing 2 SDHI fungicides is not an anti-resistance strategy.

Fungicide Performance in Barley 2013

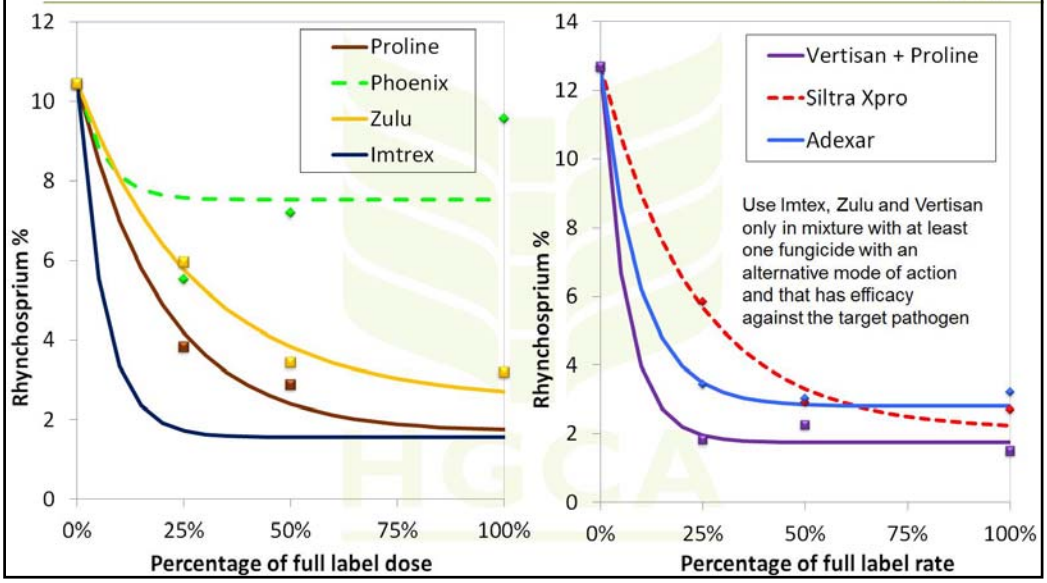
Barley FP trials 2013

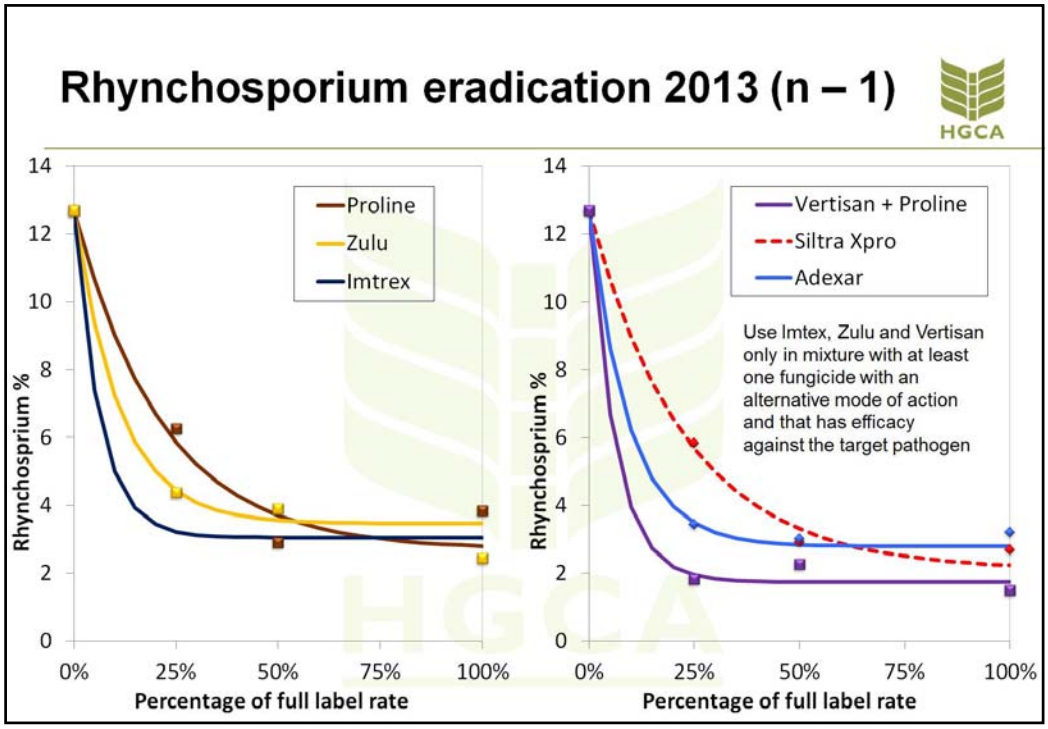
Target disease	Number of trials	Organisation
Powdery mildew	1	SRUC
Rhynchosporium	2	SRUC, ADAS, TEAGASC
Net blotch	2	ADAS, NIAB TAG
Brown rust	1	NIAB TAG
Ramularia	1	SRUC

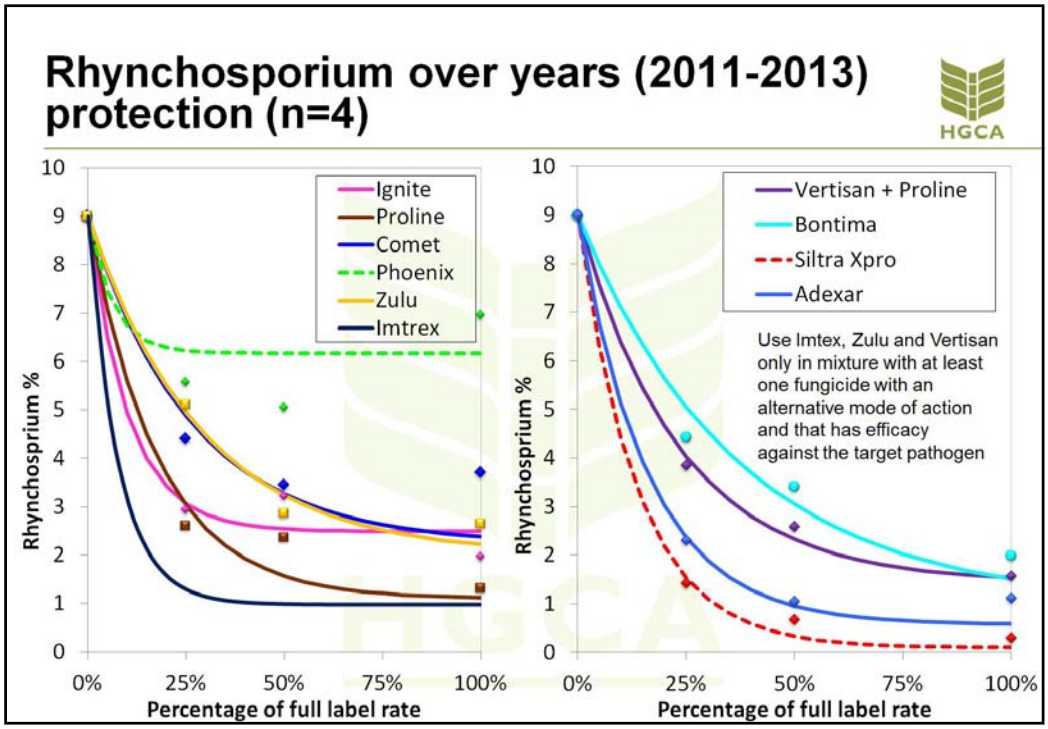
Trials summary 2013

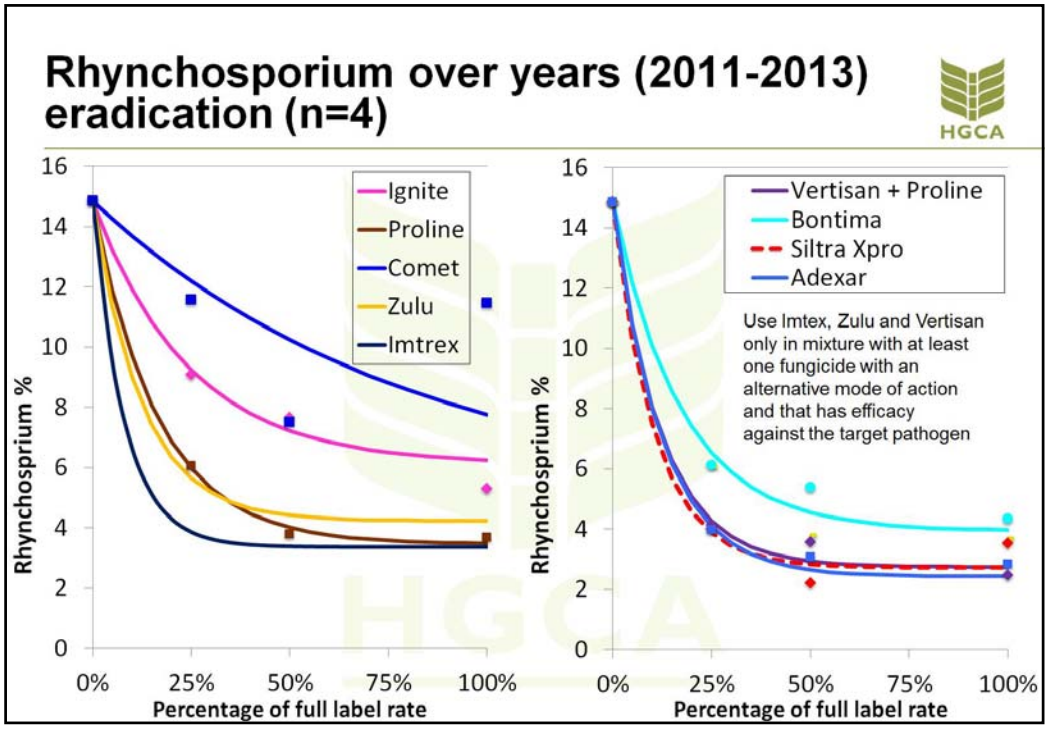
Site	Diseases assessed
Fife	Rhynchosporium
Cardigan	Rhynchosproium
Ireland	Rhynchosporium
Malton N. Yorks	Net blotch
Fife	Mildew

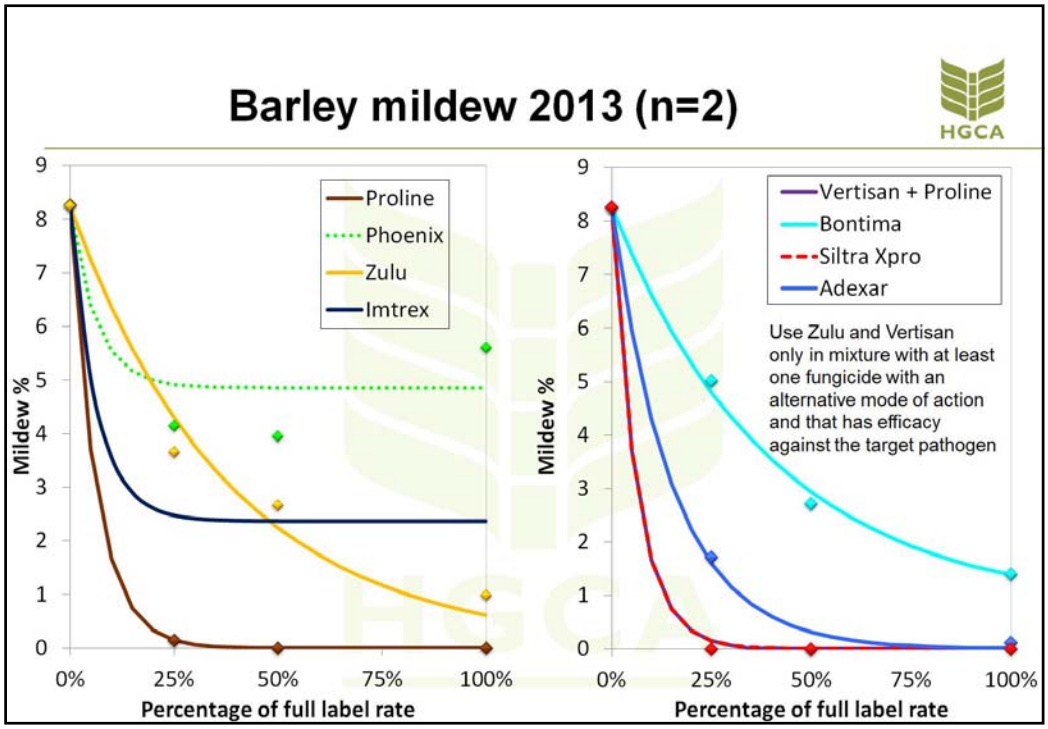
Rhynchosporium Protection 2013 (n=3)

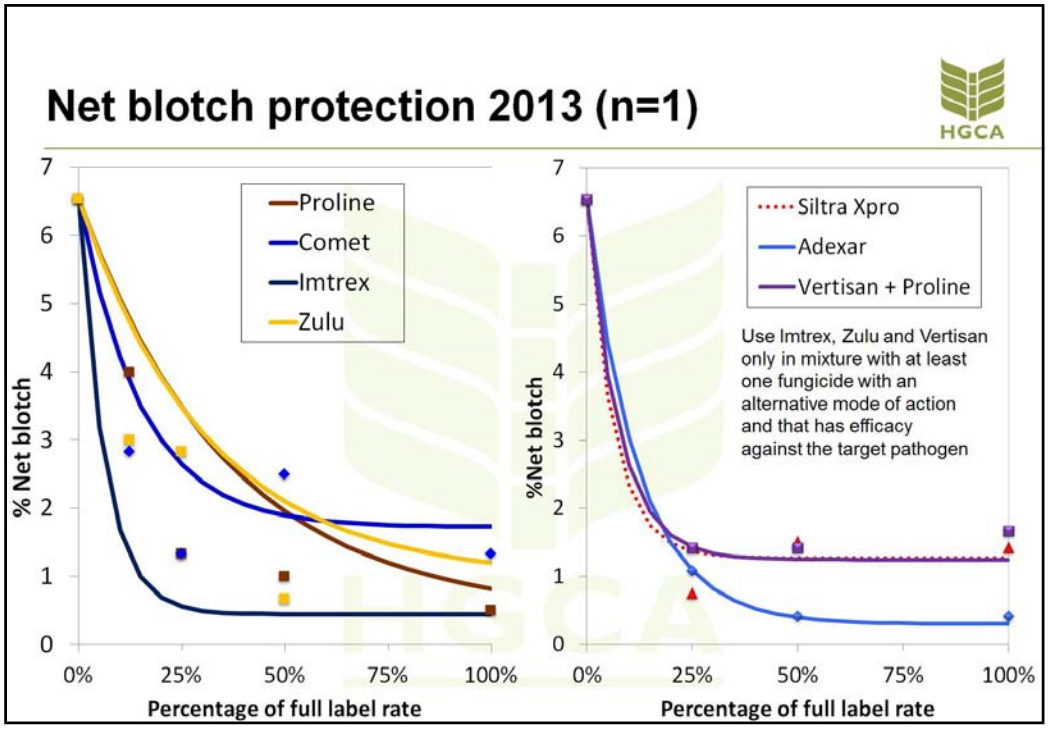


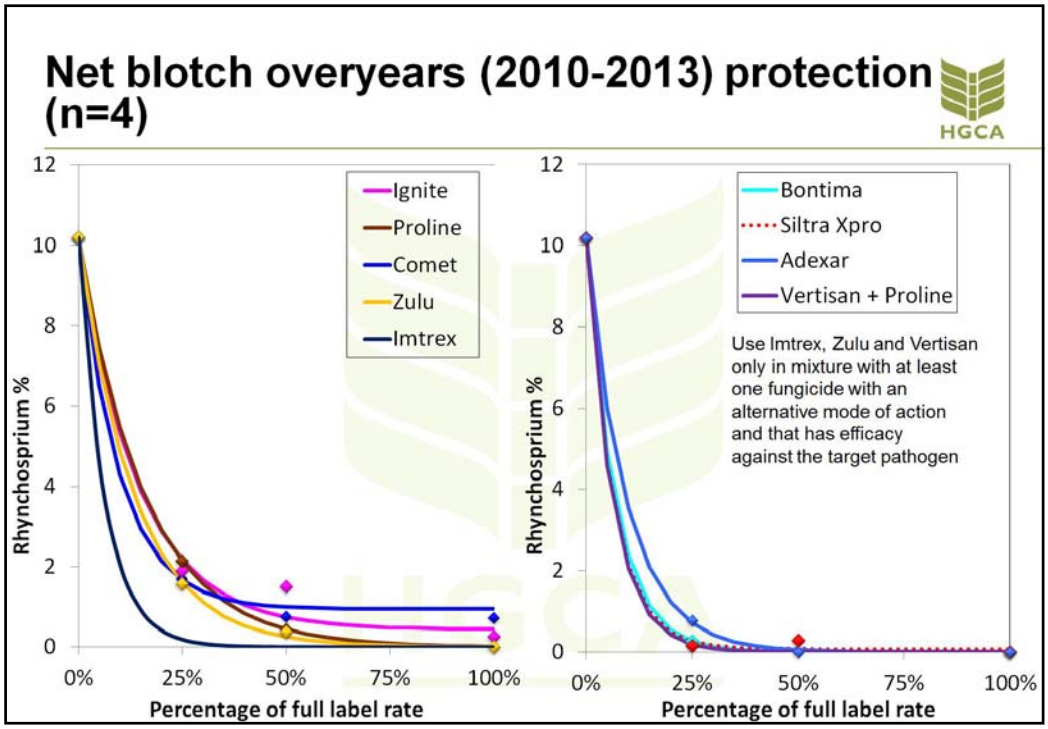

Rhynchosporium eradication 2013 (n – 1)
HGCA
Rhynchosprium %
Percentage of full label rate
Proline
Zulu
Imtrex
Vertisan + Proline
Siltra Xpro
Adexar
Use Imtex, Zulu and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen


Rhynchosporium over years (2011-2013) protection (n=4)
HGCA
Rhynchosprium %
Percentage of full label rate
Ignite
Proline
Comet
Phoenix
Zulu
Imtrex
Vertisan + Proline
Bontima
Siltra Xpro
Adexar
Use Imtex, Zulu and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen

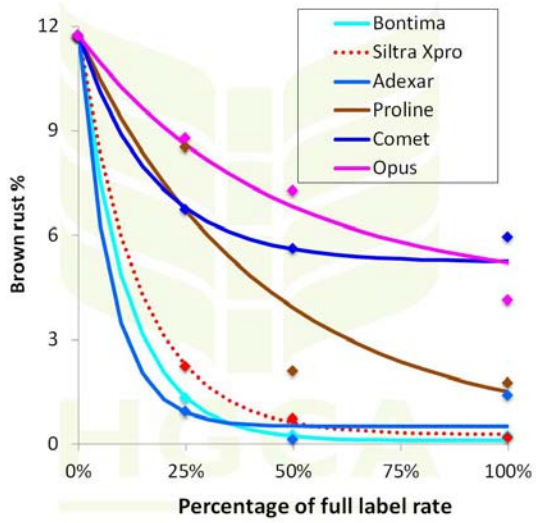

Rhynchosporium over years (2011-2013) eradication (n=4)
HGCA
Rhynchosprium %
Percentage of full label rate
Ignite
Proline
Comet
Zulu
Imtrex
Vertisan + Proline
Bontima
Siltra Xpro
Adexar
Use Imtex, Zulu and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen


Barley mildew 2013 (n=2)
HGCA
Mildew %
Percentage of full label rate
Proline
Phoenix
Zulu
Imtrex
Vertisan + Proline
Bontima
Siltra Xpro
Adexar
Use Zulu and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen

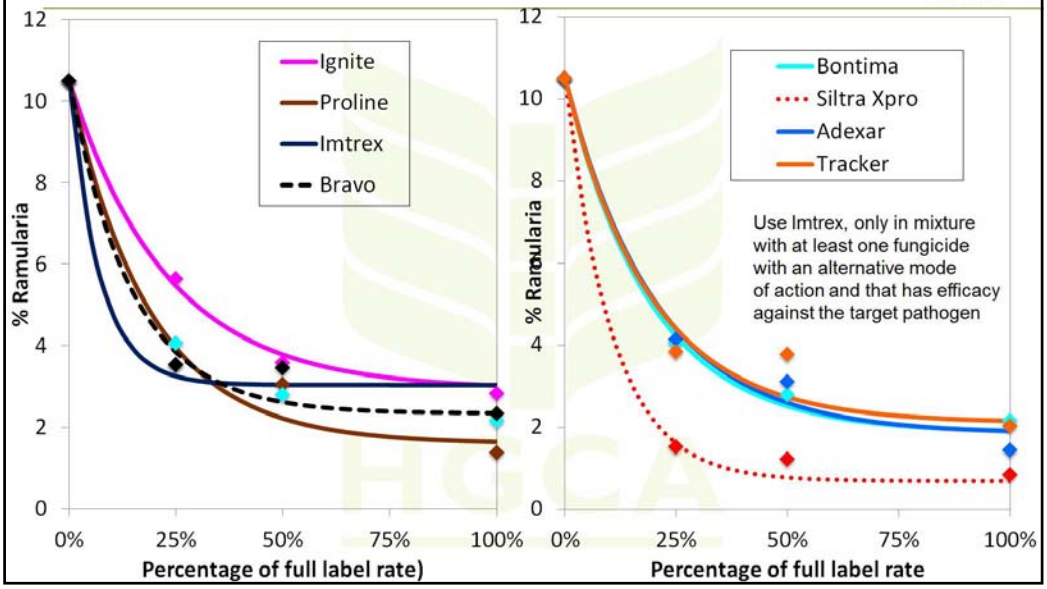

Net blotch protection 2013 (n=1)
HGCA
% Net blotch
Proline
Comet
Imtrex
Zulu
Percentage of full label rate
%Net blotch
Siltra Xpro
Adexar
Vertisan + Proline
Use Imtrex, Zulu and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen
Percentage of full label rate


Net blotch overyears (2010-2013) protection (n=4)
HGCA
Rhynchosprium %
Ignite
Proline
Comet
Zulu
Imtrex
Percentage of full label rate
Rhynchosprium %
Bontima
Siltra Xpro
Adexar
Vertisan + Proline
Use Imtrex, Zulu and Vertisan only in mixture with at least one fungicide with an alternative mode of action and that has efficacy against the target pathogen
Percentage of full label rate

Barley brown rust (2010 data)



Ramularia overyears (2010-2012) protection (n=3)

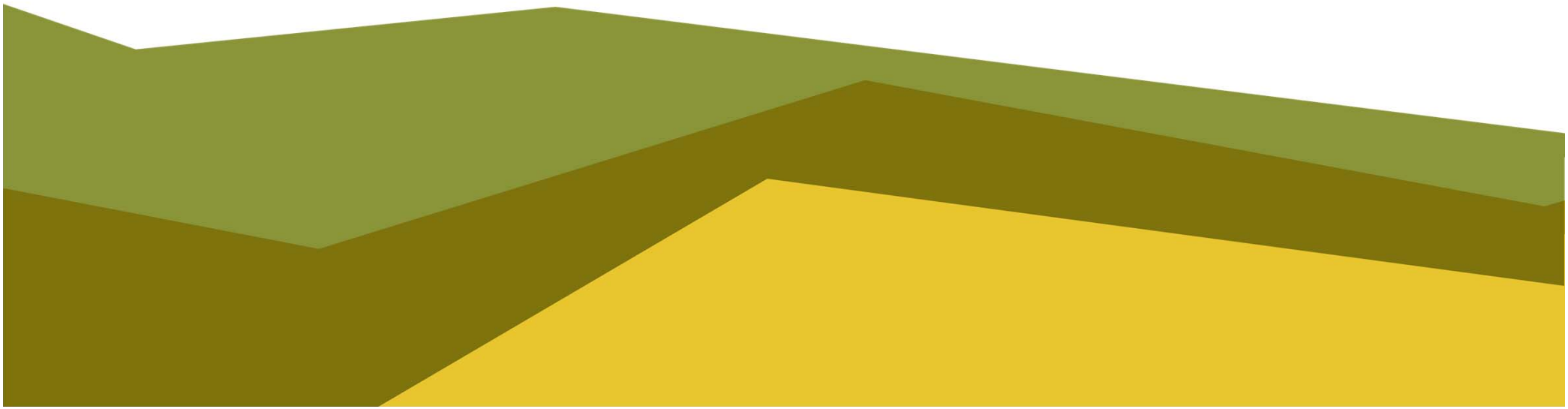


Conclusions

- Siltra Xpro and Adexar showed good broad spectrum activity in 2013, consistent with previous years.
- Proline still a highly effective azole on barley diseases
- Comet (strobilurin) remains effective against net blotch
- Phoenix has some activity on Rhynchosporium
- SDHIs mixes all performing well and quite closely matched

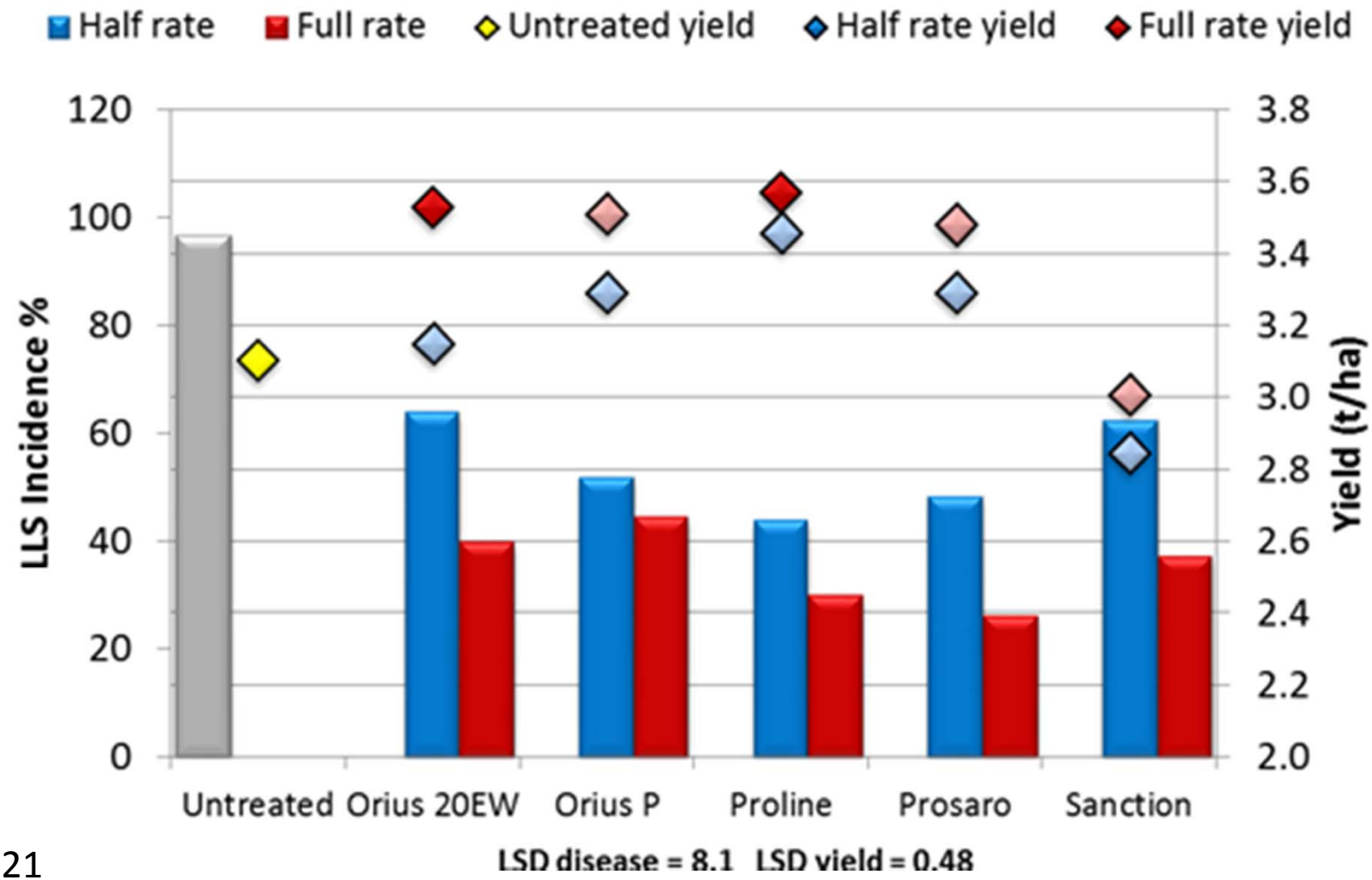
Fungicide performance in oilseed rape 2013

presented at HGCA Agronomy Workshops February / March 2014



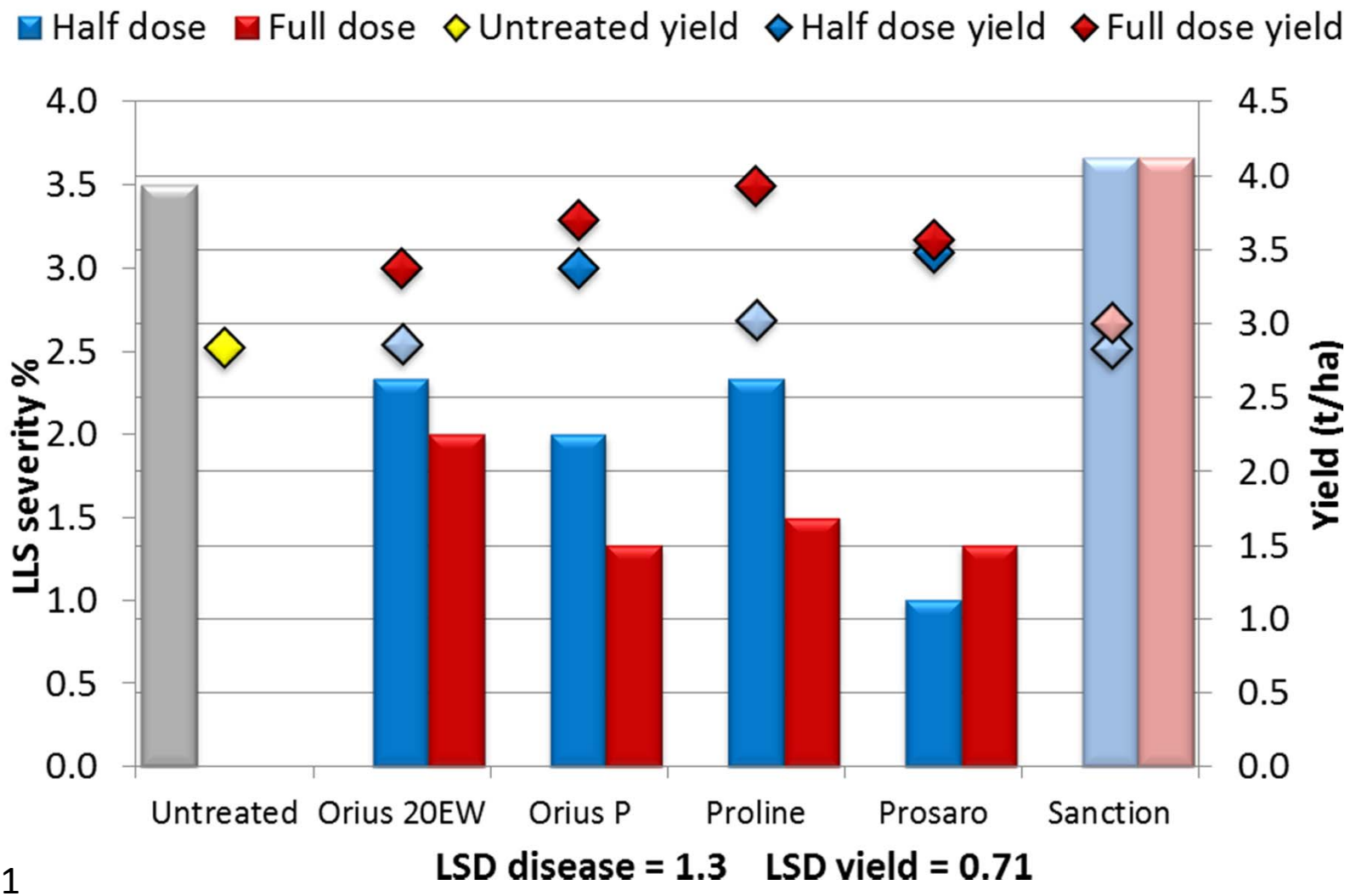
Light leaf spot

Light leaf spot incidence, N Yorks. 2013



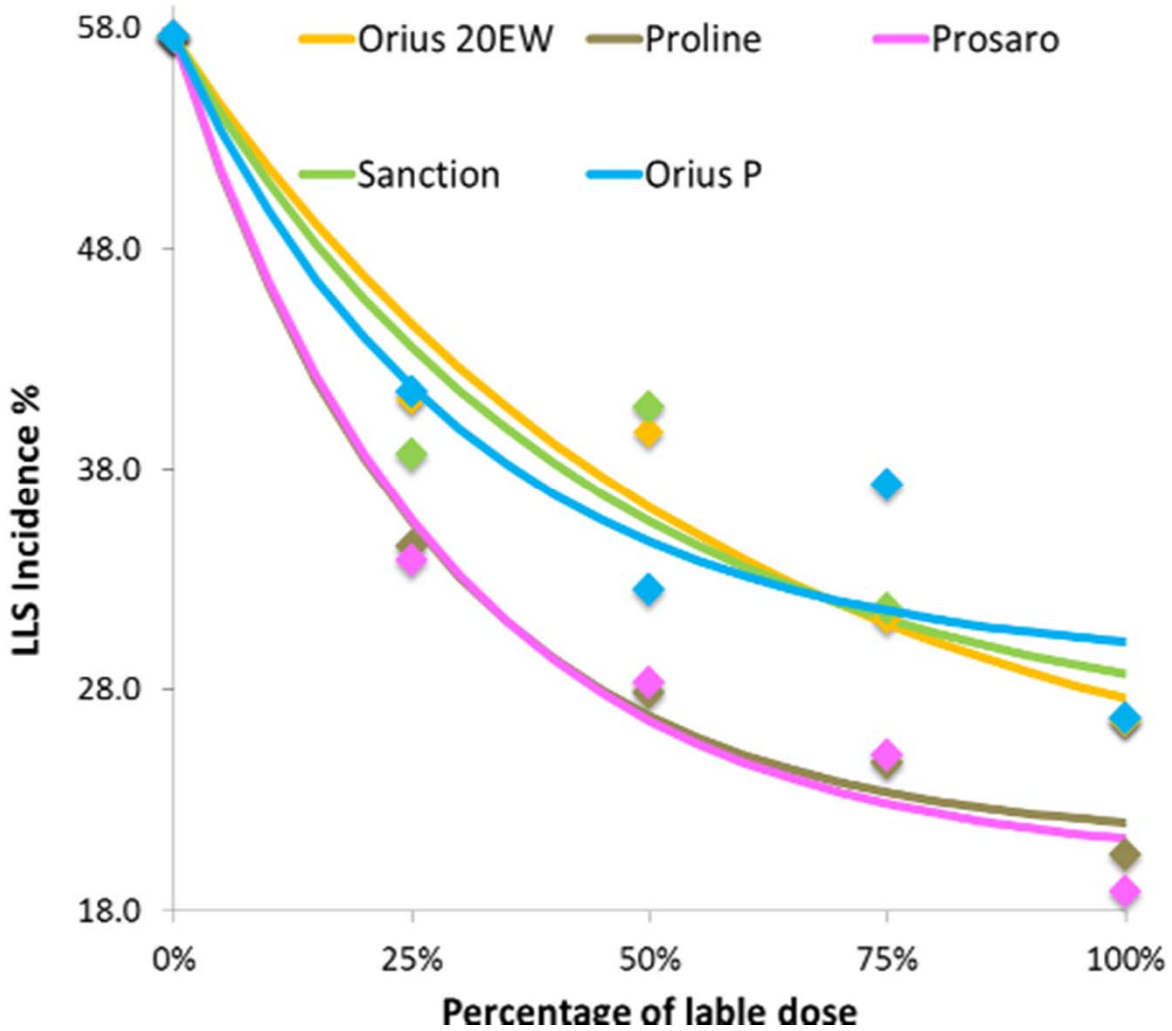
cv PR46W21

Light leaf spot incidence, Edinburgh 2013



cv PR46W21

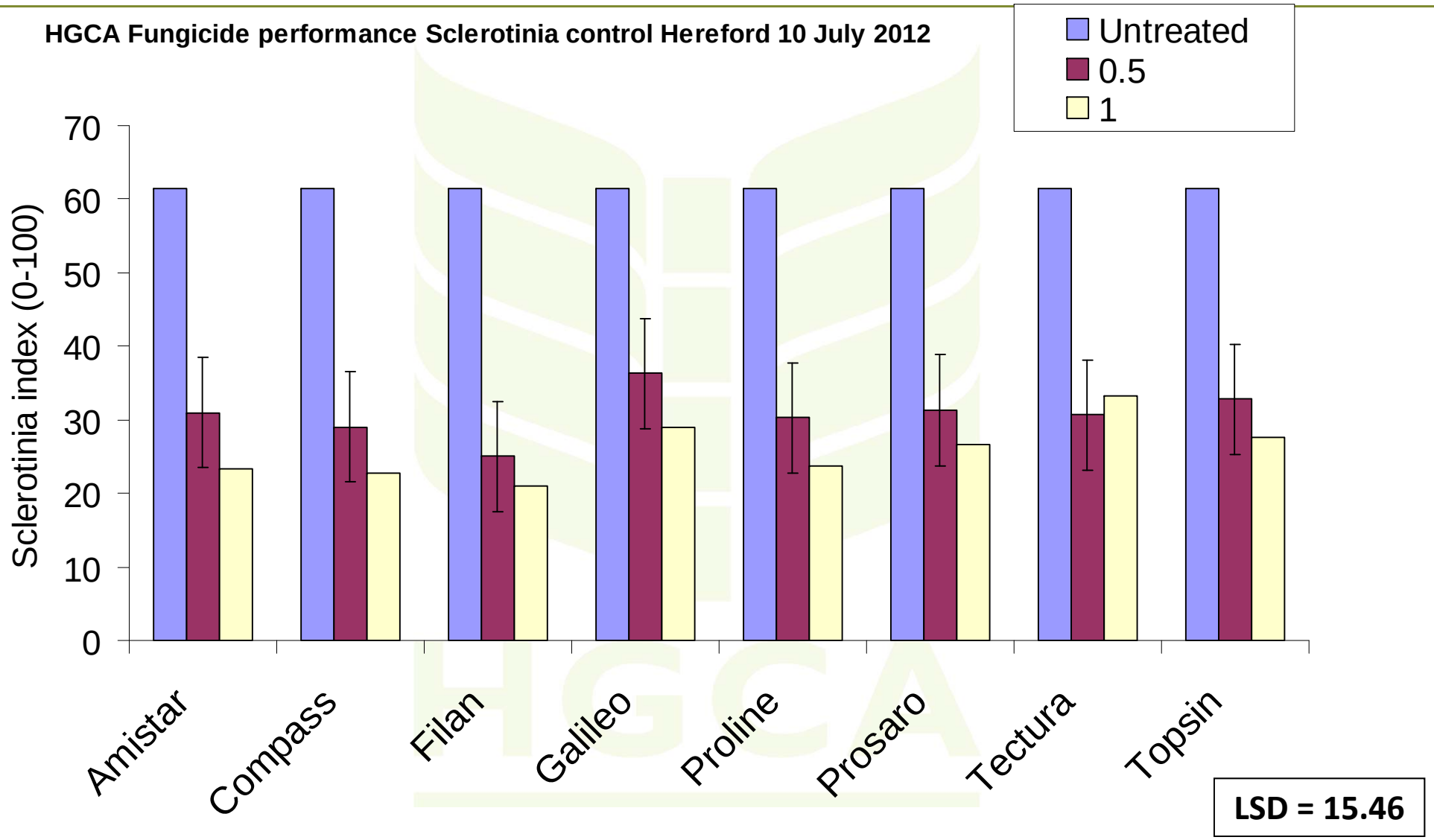
Dose response and light leaf spot control



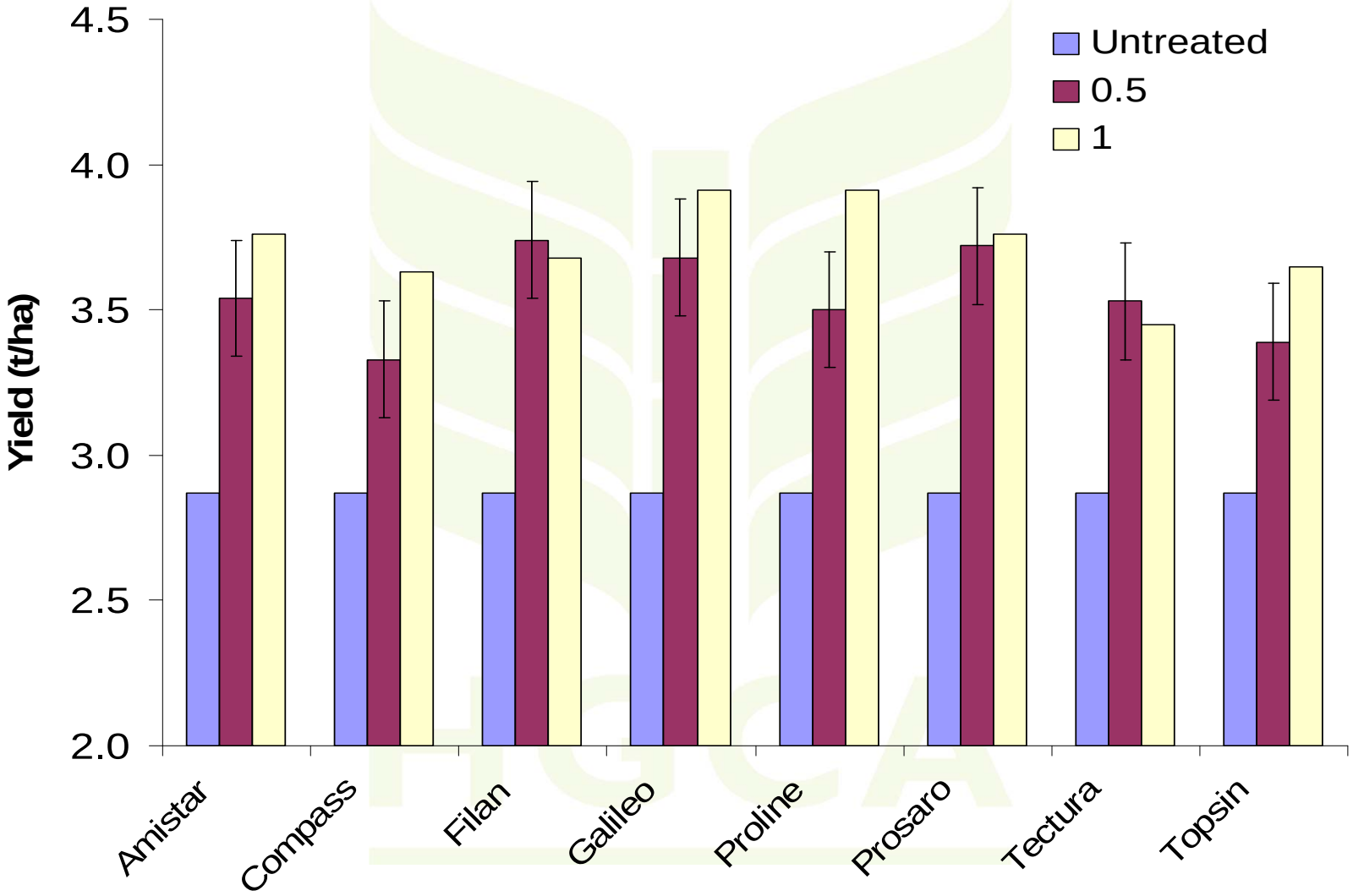
Sclerotinia

Treatment at flowering protects against sclerotinia
Timing is critical – no curative activity

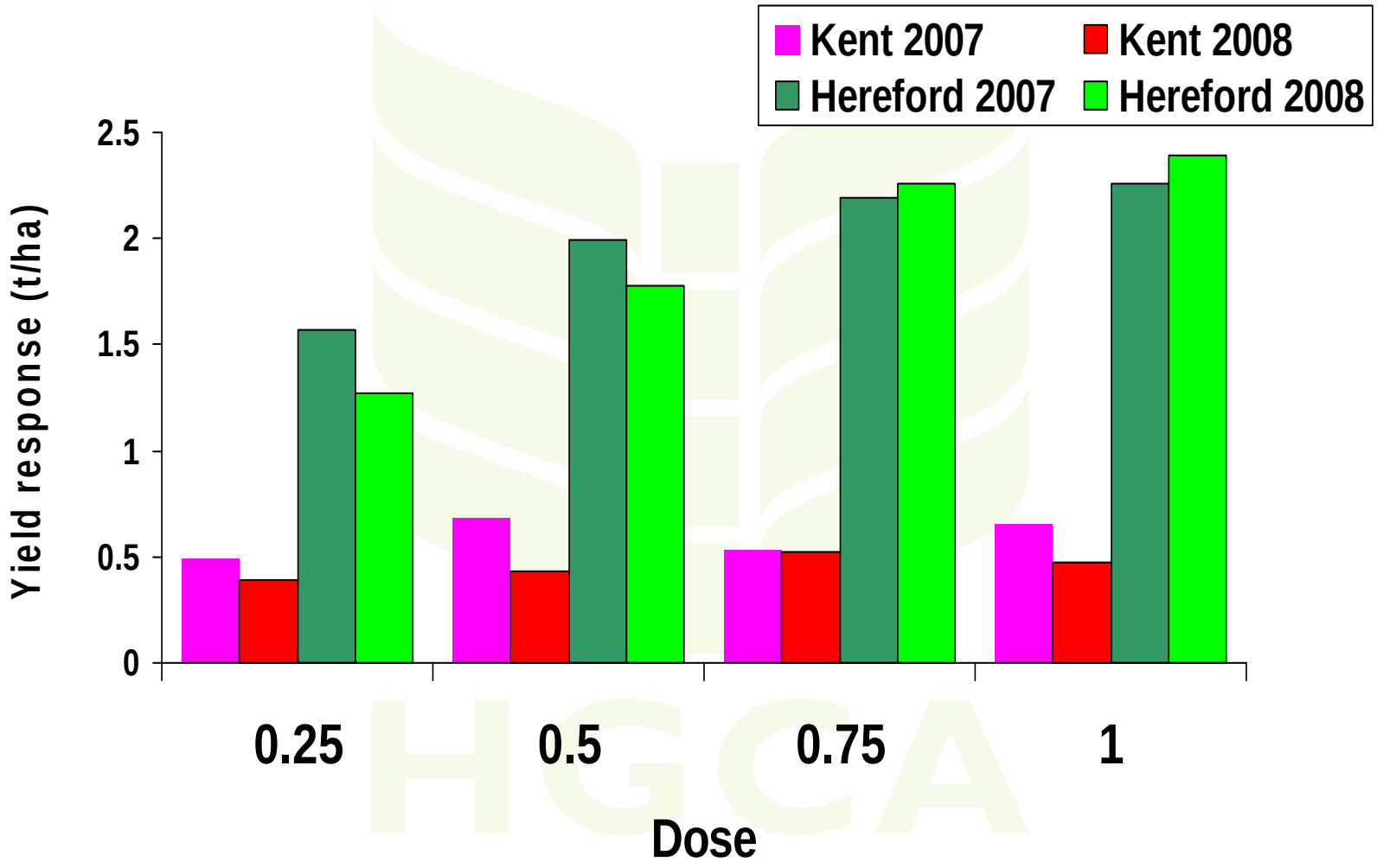
Sclerotinia control Hereford 2012



Large yield responses to sclerotinia control: Hereford 2012



Sclerotinia control and fungicide dose



Sclerotinia control – summary

Evaluate risk:

- previous monitoring
- history of cropping
- weather /crop microclimate

Where risk is high consider using:

- up to 75% doses of active products
- more than one application

Spray timing is critical – protectant activity 3 weeks

Thank you