

Trial 4. HYC Barley Disease Management (FAR TAS B22-04-2)

Objectives:

To develop profitable and sustainable approaches to disease management in HRZ barley.

Key points:

- There was no significant response in yield to the use of fungicides. This result is in line with those in 2021 and 2020. This again demonstrates that intensive fungicide management (multiple applications and expensive chemistry) may not be needed to grow barley in spring sown systems.
- There was no influence of fungicides on grain quality with the exception of retention, with untreated (92.6%) significantly lower than most other treatments (average 94.2%).
- Despite no significant differences in yield, low amounts of NFNB and scald were recorded in this trial.

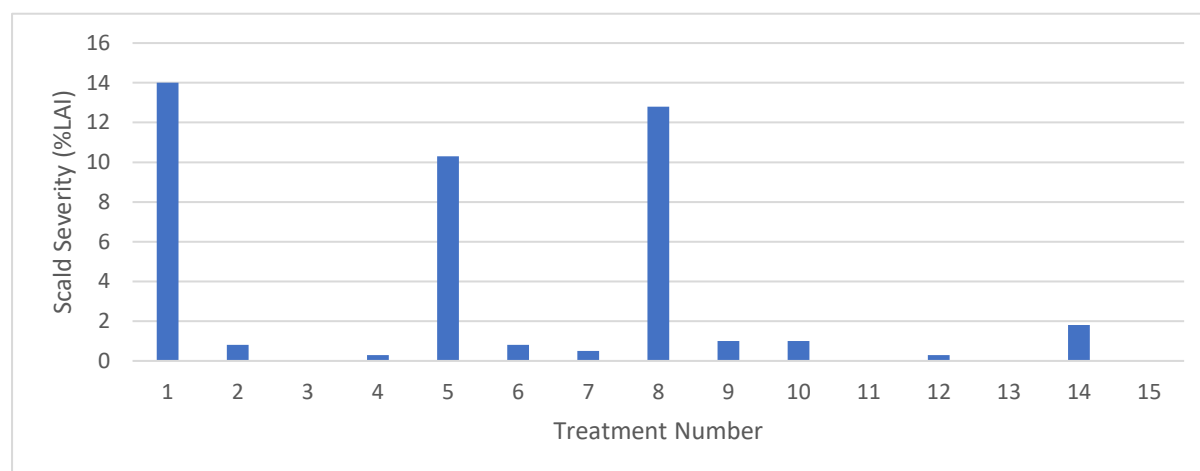
Treatments: 15 Fungicide management strategies (cultivar- RGT Planet)

Table 2. Influence of fungicide management on grain yield (t/ha).

Treatment				Yield	% of mean	
	GS00	GS30	GS39-49	GS59	t/ha	%
1	---	---	---	---	11.98	- 100.2
2	Systiva	Prosaro 300 mL/ha	Radial 840 mL/ha		12.02	- 100.5
3	Systiva	Prosaro 300 mL/ha	Radial 840 mL/ha	Opus 500 mL/ha	12.01	- 100.4
4	---	Prosaro 300 mL/ha	Aviator Xpro 420 mL/ha		11.78	- 98.5
5	---	---	Aviator Xpro 420 mL/ha		11.77	- 98.5
6	---	Prosaro 300 mL/ha	FAR F1-19 750 mL/ha		11.83	- 99.0
7	---	FAR F1-19 750 mL/ha	Radial 840 mL/ha		12.05	- 100.8
8	---	Prosaro 300 mL/ha	----		11.77	- 98.4
9	--	Tilt 500 250 mL/ha	----		11.96	- 100.0
10	Systiva	---	Radial 840 mL/ha	---	11.94	- 99.9
11	---	Prosaro 300 mL/ha	Radial 840 mL/ha	---	12.12	- 101.4
12	---	Prosaro 300 mL/ha	Aviator Xpro 420 mL/ha	Opus 500 mL/ha	12.07	- 100.9
13	---	Aviator Xpro 420 mL/ha	Radial 840 mL/ha		11.87	- 99.3
14	---	Prosaro 150 mL/ha	Radial 420 mL/ha		12.11	- 101.2
15	Systiva	Prosaro 300 mL/ha	Aviator Xpro 420 mL/ha	Opus 500 mL/ha	12.09	- 101.1
Mean					11.96	100.0
LSD (P=0.05)					ns	ns
P-Value					0.329	0.332

Table 2. Influence of fungicide management on grain quality (treatment number as per table 1).

Trt.	Protein	Test weight	Retention	Screenings
	%	kg/hL	%	%
1	11.8 -	68.9 -	92.6 d	2.2 -
2	11.7 -	69.4 -	94.1 bc	2.0 -
3	11.6 -	69.7 -	94.5 bc	1.7 -
4	11.6 -	69.4 -	94.6 bc	1.9 -
5	11.4 -	69.8 -	93.6 cd	2.0 -
6	11.7 -	69.3 -	94.8 ab	1.8 -
7	11.5 -	69.0 -	94.5 bc	1.9 -
8	11.5 -	69.6 -	93.8 bc	1.9 -
9	11.7 -	69.1 -	93.8 bc	2.0 -
10	11.6 -	69.7 -	94.7 ab	1.7 -
11	11.5 -	69.2 -	94.3 bc	1.7 -
12	11.6 -	69.6 -	94.1 bc	1.9 -
13	11.6 -	69.9 -	95.7 a	1.5 -
14	11.5 -	69.4 -	94.3 bc	1.8 -
15	11.6 -	69.3 -	93.8 bc	2.1 -
Mean	11.6	69.4	94.2	1.9
LSD (P=0.05)	ns	ns	1.1	ns
P-Value	0.460	0.200	0.004	0.080

**Figure 1.** The severity of scald at GS71- non-significant (treatment number as per table 1).**Table 3.** Details of the management levels.

Varieties:		RGT Planet
Sowing date:		7 September
Harvest date:		21 January
Seed Rate:		180 seeds/m ²
Sowing Fertiliser:		100 kg MAP/ha
Seed Treatment:		As per treatment list
Nitrogen:		
	20 October	200 kg Urea (92 N)
	10 November	87 kg Urea (40 N)
Fungicide:		As per treatment list