

Total Mineral N*	228.13 kg N/ha
Colwell Phosphorus	42 mg/kg
Colwell Potassium	320 mg/kg
KCI Sulfur	86 mg/kg

*Mineral N 0-90cm sampled 29/6/2020, all other results 0-10cm depth sampled 8/4/2020

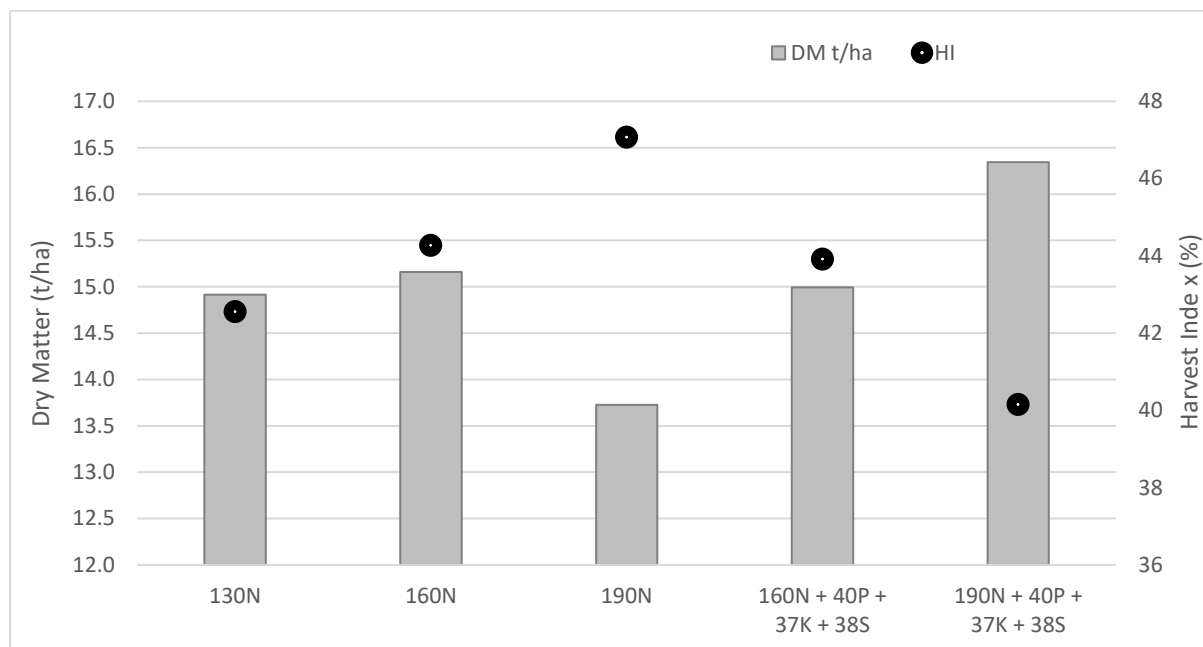


Figure 1. Effect of Nutrition strategy on harvest Dry Matter and harvest Index 13 December.

Table 3. Trial input and management details (kg, g, ml/ha).

Plant pop'n:		180 seeds/m ²
Seed treatment:		Vibrance/Gaucho
Basal Fertiliser:	16 April	100kg MAP
Nitrogen:	29 July	87 kg Urea (40 N) ± treatment list
	11 August	87 kg Urea (40 N) ± treatment list
	2 September	87 kg Urea (40 N)
Fungicide*:	25 August	Prosaro 300mL/ha
	14 September	Radial 840mL/ha
	28 October	Opus 500mL/ha

All inputs of insecticides and herbicides were standard across the trial.

Trial 7. Erect Head Control in April Sown Wheat

Objectives:

To assess the principal causes of erect heads in April sown wheat crops

Individual objectives specific to the trial are:

- To determine the value of Barley Yellow Dwarf Virus (BYDV) tolerance in HRZ wheat crops using a tolerant (cv Manning) and a non-tolerant (cv RGT Relay) cultivar.

- To assess the connection between erect heads and stem base disease complex e.g. crown rot, eyespot, sharp eyespot in the presence of different stem base fungicide applications.

Key Points:

- *The long season UK wheat RGT Relay out yielded Manning but none of the treatments of insecticide or fungicide produced any significant difference in grain yield.*
- *There were clear indications that symptoms of BYDV were present in the RGT Relay that were not present in the BYDV tolerant variety Manning, but these differences did not result in a yield effect.*
- *BYDV like symptoms became more apparent in the canopy as the crop began to grain fill with less BYDV observed in the insecticide treated plots in RGT Relay (non-tolerant).*
- *Little or no BYDV like symptoms were observed in the Manning.*
- *There was no significant expression of erect heads in this trial or significant differences in erect head numbers.*
- *ELISA testing confirmed Cereal yellow dwarf virus (CYDV-prv) presence but not Barley yellow dwarf virus (BYDV-pav).*

Treatments:

Six different treatments applying four different levels of insecticide input for aphid (BYDV) control were applied to a tolerant (cv Manning) and a non-tolerant variety. Two additional experimental treatments were applied that examined the value of an experimental fungicide applied at GS31 applied with and without the strobilurin azoxystrobin. Please note these treatments were applied to examine stem base disease control in this trial and are not commercially available treatments.

Table 1. The effect of variety and crop protection treatment on Yield (t/ha).

	Manning	Relay	Mean
	Yield (t/ha)	Yield (t/ha)	Yield (t/ha)
Untreated	8.55 -	9.50 -	9.03 -
Gaucha	8.48 -	9.57 -	9.02 -
Gaucha + GS21 Insecticide	8.93 -	9.71 -	9.32 -
Gaucha + GS21 & GS31 Insecticide	8.81 -	9.53 -	9.17 -
Gaucha + GS21 & GS31 Insecticide + Experimental Fungicide 1	9.04 -	10.27 -	9.65 -
Gaucha + GS21 & GS31 Insecticide + Experimental Fung 1 + Azoxystrobin	9.16 -	9.95 -	9.55 -
Mean	8.83 b	9.75 a	
LSD Variety p=0.05	0.46	P val	0.008
LSD Treatment p=0.05	0.53	P val	0.095
LSD Var x Treatment p=0.05	ns	P val	0.908

Treatments 1 – 4 were treated with Opus at full rate at GS31 after which all treatments were treated the same.

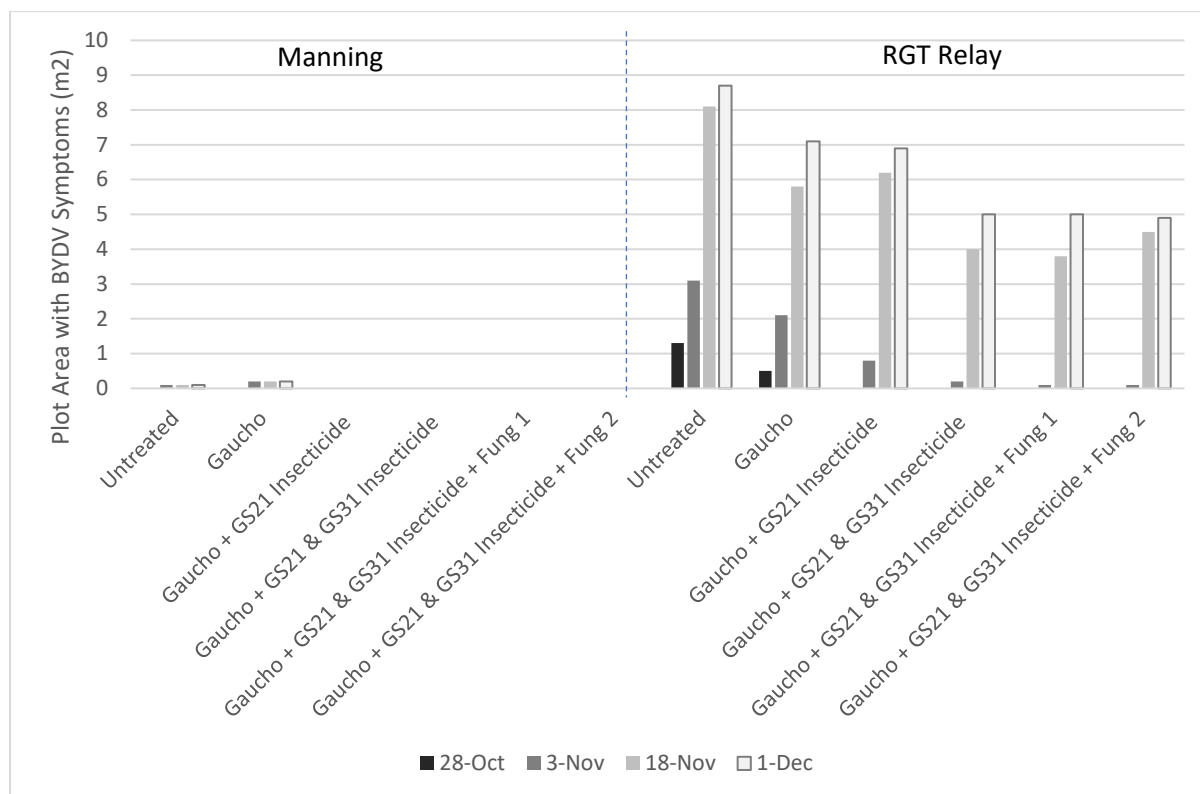


Figure 1. Area of the plot (m²) displaying visual symptoms of BYDV (later ELISA testing confirmed as Cereal Yellow Dwarf Virus). Total plot area = approximately 24/m².

Table 2. Trial input and management details (kg, g, ml/ha).

Plant pop'n:		180 seeds/m ²
Seed treatment:		Vibrance ± Gaucho
Basal Fertiliser:	16 April	100kg MAP
Nitrogen:	29 July	87 kg Urea (40 N) ± treatment list
	11 August	87 kg Urea (40 N) ± treatment list
	2 September	87 kg Urea (40 N)
Fungicide:	GS31*	Opus 800mL/ha
	14 September	Aviator Xpro 400mL/ha
	28 October	Radial 840mL/ha

All inputs of insecticides and herbicides were standard across the trial. *Trt 1-4 & 7-10 when each cultivar reached GS31.