

Table 2. Details of the management levels (kg, g, ml/ha).

Seed Rate:		180 seeds/m²
Sowing Fertiliser:	12 May	100kg/ha MAP
Seed Treatment:		Vibrance & Gaucho
Nitrogen:	29 July	40 N kg/ha
	11 August	40 N kg/ha
	2 September	40 N kg/ha
Fungicide:	GS31	Prosaro 300ml/ha
	GS39	Radial 840ml/ha
	GS61	Opus 500ml/ha

Trial 7: HYC Genotype x Environment x Management (GEM) Trial Series (Mid-May sown)

Objectives: To assess the performance of winter and spring wheat germplasm managed under three different levels of management (mid-May sown).

Key Messages:

- Winter red feed wheat Anapurna yielded significantly higher (2.0t/ha plus) than the spring milling cultivars planted in mid-May, but showed no significant yield difference in response to the three management levels applied.
- Rockstar (>9 t/ha) yielded significantly more than the other spring milling cultivars tested, all of which yielded less than 8t/ha when averaged over the three management levels.
- Although no significant differences were observed, protein content of all cultivars across the three management strategies were >13% except Anapurna under the standard management.
- There were no significant differences in harvest dry matter between the low input high seeding rate and high input management strategies.
- Higher grain yields with Anapurna correlated to significantly higher dry matter (approximately 20t/ha)
- Rockstar milling wheat was significantly higher yielding than other spring wheats with a trend for higher harvest dry matter compared to other milling wheats.

Table 1. Influence of management strategy and cultivar on grain yield (t/ha).

	Management Level				
	Low Input High Seed Rate	Standard Input	High Input	Mean	
Cultivar	Yield t/ha	Yield t/ha	Yield t/ha		
Anapurna	11.10 -	11.76 -	11.70 -	11.52	a
Coota	7.40 -	7.41 -	8.12 -	7.64	c
Rockstar	8.78 -	8.74 -	9.75 -	9.09	b
Scepter	6.72 -	7.28 -	8.31 -	7.43	c
Trojan	7.49 -	7.38 -	8.24 -	7.70	c
Mean	8.30 -	8.51 -	9.22 -		

LSD Cultivar p = 0.05	0.34	P val	<0.001
LSD Management p = 0.05	0.90	P val	ns
LSD Cultivar x Man. p = 0.05	0.60	P val	ns

Table 2. Influence of management strategy and cultivar on protein (%).

Cultivar	Management Level						Mean	
	Low Input High Seed Rate		Standard Input		High Input			
	Protein %		Protein %		Protein %			
Anapurna	13.1	de	12.6	e	14.0	ab	13.2	c
Coota	13.5	bcd	14.0	ab	14.3	a	13.9	a
Rockstar	13.3	cd	14.0	ab	13.4	cd	13.5	bc
Scepter	13.8	abc	13.5	bcd	13.8	abc	13.7	ab
Trojan	13.1	de	13.5	bcd	13.7	abc	13.4	bc
Mean	13.4	-	13.5	-	13.8	-		
LSD Cultivar p = 0.05			0.3	P val		0.002		
LSD Management p = 0.05			0.5	P val		ns		
LSD Cultivar x Man. p = 0.05			0.6	P val		0.001		

Table 3. Influence of management strategy and cultivar on thousand seed weight (g).

Cultivar	Management Level						Mean	
	Low Input High Seed Rate		Standard Input		High Input			
	Test Wt. (kg/hL)		Test Wt. (kg/hL)		Test Wt. (kg/hL)			
Anapurna	81.2	-	81.5	-	81.5	-	81.4	-
Coota	80.9	-	81.1	-	81.4	-	81.1	-
Rockstar	81.0	-	80.5	-	81.0	-	80.8	-
Scepter	81.2	-	81.0	-	81.0	-	81.1	-
Trojan	81.1	-	81.2	-	79.9	-	80.7	-
Mean	81.1	-	81.1	-	80.9	-		
LSD Cultivar p = 0.05			0.5	P val		0.085		
LSD Management p = 0.05			0.7	P val		0.883		
LSD Cultivar x Man. p = 0.05			0.9	P val		0.098		

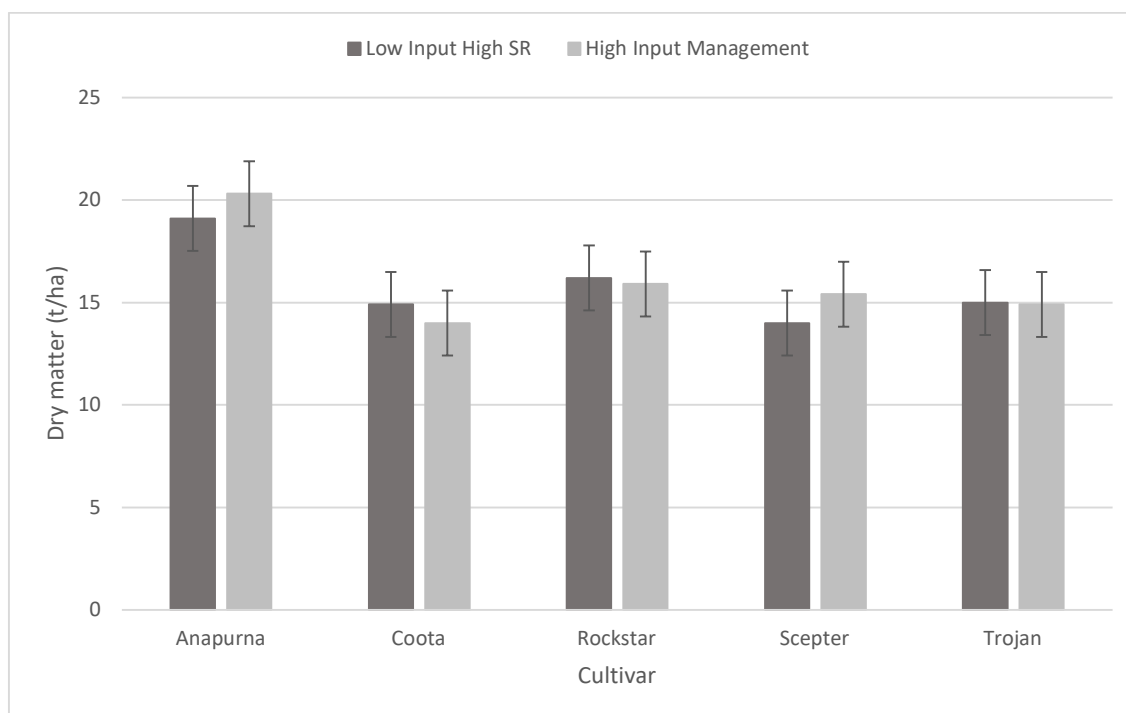


Figure 1. Influence of management strategy and cultivar on harvest dry matter (t/ha).

Table 4. Details of the management levels (kg, g, ml/ha).

		Low Input High Seed Rate	Standard Input	High Input
Seed rate:		300 seeds/m ²	180 seeds/m ²	180 seeds/m ²
Seed treatment:		Vibrance/Gaucho	Vibrance/Gaucho	As standard + Systiva
Basal Fertiliser:	12 May	100kg MAP	100kg MAP	100kg MAP
Nitrogen:				
	4 August	87 kg Urea (40 N)	87 kg Urea (40 N)	87 kg Urea (40 N)
	21 Sept	175 kg Urea (80 N)	175 kg Urea (80 N)	175 kg Urea (80 N)
	7 October	175 kg Urea (80 N)	175 kg Urea (80 N)	87 kg Urea (40 N)
Total N Applied:		120 N	120 N	160 N
PGR**:	GS30	---	---	Mod. 100ml + Errex 650ml
	GS32	---	---	Mod. 100ml + Errex 650ml
Fungicide**:	GS31-32	Opus 500ml	Opus 500ml	Prosaro 300ml
	GS39	Radial 840ml	Radial 840ml	Radial 840ml
	GS59-61	---	---	Opus 500ml

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