

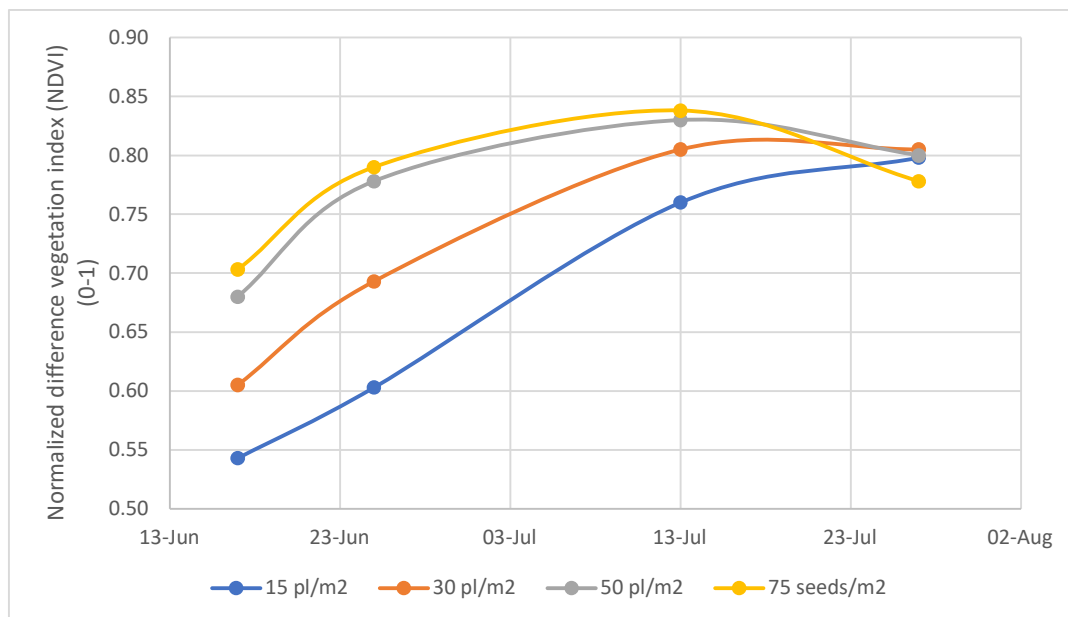


Figure 1. Normalized difference vegetation index (NDVI) (0-1) during the vegetative period of 45Y28 RR at 4 target plant densities.

Table 2. Trial management details.

Sowing date:		25 April
Variety:		45Y28 RR
Target plant density:		As per treatments
Sowing Fertiliser:		150kg MAP & 125kg SOA
Nitrogen:	6 Leaf	113kg N/ha
	Bud Visible	113kg N/ha
Fungicide:		Prosaro 0.45L/ha
	20% Bloom	Aviator Xpro 0.80L/ha

Trial 7: Nitrogen nutrition for hyper yielding winter canola

Objectives: To determine optimum nitrogen nutrient management (including rate and timing) for hyper-yielding winter canola.

Key Messages:

- There was no effect of nitrogen applied as granular urea on grain yield of the winter cultivar Hyola Feast CL.
- Where pig manure was applied, grain yield increased by 0.57 t/ha compared to where N alone was applied.
- There was no effect of nutrition on oil, protein or test weight, but seed size increased with higher nutrition.

Treatments: Five nitrogen rates applied as urea with an equal split at 6-leaf and bud visible stage. A sixth treatment had 6.7t/ha of pig manure applied.

Table 1. Yield and grain quality of the Nutrition trial in Canola (Hyola Feast CL).

Applied Nitrogen in Crop	Yield		Grain Quality			
	Yield (t/ha)		Oil (%)	Protein (%)	Test Weight (kg/hl)	TSW (g)
Nil	3.75	b	47.7	-	62.6	-
75 kg N /ha	3.94	b	47.3	-	62.6	-
150 kg N /ha	4.13	b	48.2	-	62.7	-
225 kg N /ha	4.10	b	48.4	-	63.1	-
300 kg N /ha	4.02	b	46.4	-	62.5	-
225 kg N /ha + Manure	4.67	a	47.5	-	63.1	-
Mean	4.10		47.6		62.7	
LSD 0.05	0.51		ns		ns	
P Val	0.032		0.530		0.834	

*Pig Manure expressed dry matter basis (2.7% Nitrogen, and 1.26% Phosphorus) = additional 169kg N/ha and 85kg P/ha to replicate high fertility soils.

Table 2. Canopy measurements at flowering and crop maturity (t/ha, %).

Applied Nitrogen in Crop	Flowering Biomass	Maturity Biomass	Harvest Index
	Dry Matter t/ha	Dry Matter t/ha	
Nil	7.5	13.3	0.31
75 kg N /ha	6.8	15.9	0.32
150 kg N /ha	8.1	17.1	0.34
225 kg N /ha	7.9	19.6	0.32
300 kg N /ha	8.2	22.7	0.32
225 kg N /ha + Manure	9.0	20.5	0.34
Mean	7.91	18.2	0.33
LSD 0.05	2.9	4.1	ns
P Val	0.712	0.003	0.250

Table 3. Trial management details.

Sowing date:	9 April	
Variety:	Hyola Feast CL	
Target plant density:	45 plants/m ²	
Sowing Fertiliser:	150kg MAP & 125kg SOA	
Nitrogen:	As per treatment list	
Fungicide:	Seed	Saltro Duo
	6 Leaf	Prosaro 0.45L/ha
	20% Bloom	Aviator Xpro 0.80L/ha

All inputs of insecticides and herbicides were standard across the trial