

2020 NSW Crop Technology Centre - Wallendbeen, New South Wales

Sown: 17 April 2020

Harvested: 28 November and 12 December 2020

2019 Crop: Wheat.

Soil type & management: Red loam

Available Nitrogen (kg/ha) 0-60 cm: 140 kg/ha

Colwell P (mg/kg) 0-10 cm: 38

pH (CaCl₂) 0-10 cm: 5.6

Organic Carbon (%) 0-10 cm: 1.7

Trial 1. HYC Winter canola screen

Objectives: To examine the suitability of elite commercial and unreleased winter canola cultivars for Hyper-yielding regions

Key points:

- There is a gradual shift earlier in flowering date with new cultivars, with the recently released Phoenix CL, SF Nizza CL and now Hyola Feast CL (CL82005) all being at least five days faster to flower than the industry benchmark Hyola 970CL.
- The fastest winter was still however 19 days slower to flower than the slowest spring cultivar, highlighting the need for local breeding to fill this space.
- CL82005 (now Hyola Feast CL) was the highest yielding variety and had the highest oil concentration. It will form a major part of HYC canola trial programs in coming seasons.
- The mean yield of the winter screen of 4.04 t/ha was 0.74 t/ha below the mean yield of the spring screen. The flowering date of the winter cultivars was later than ideal for the region, whereas the spring cultivars can flower close to the optimum flowering date (late August-early September).

Treatments: 12 cultivars (currently there are 3 commercial cultivars) sown in small plots (half of normal plot length) with 'High input' treatment as per Trial 3.

Table 1. Yield of the variety evaluation trial (t/ha, % site mean) and grain quality results.

Variety	Phenology	Yield		Grain Quality			
	Flowering Date	Yield		Oil		TSW	
		(t/ha)		%		grams	
Hyola 970CL	2 October	4.56	ab	47.1	bcd	3.78	c-g
Edimax CL	29 September	3.65	d	46.7	de	4.05	ab
SF Nizza CL	26 September	3.90	cd	47.9	a	4.17	a
Phoenix CL	27 September	4.25	a-d	48.0	a	3.59	hi
CL82003	1 October	4.24	a-d	47.4	abc	3.91	bcd
CL82004	2 October	3.99	bcd	47.6	ab	3.95	bc
CL82005	26 September	4.68	a	47.9	a	3.55	i
CL210003	4 October	3.90	cd	46.9	cde	3.91	bcd
CL210004	4 October	3.68	cd	46.4	ef	3.95	bc
SF65-056-CL	28 September	3.64	d	46.0	fg	3.50	i
CL210007	4 October	3.78	cd	46.8	cde	3.78	c-g
CC210008	6 October	4.05	bcd	44.7	h	3.92	bcd
CC210009	5 October	4.27	abc	45.6	g	3.91	cde

Mean	4.04	46.9	3.8
LSD 0.05	0.60	0.7	0.18
P Val	0.021	<0.001	<0.001

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

Sowing date:	17 April	
Seed Rate:		60 seeds/m ²
Sowing Fertiliser:		130 kg/ha MAP
Seed Treatment:		Jockey + Poncho
Nitrogen:	17 April	150 kg/ha SOA (30 kg/ha N)
	11 June	196 kg/ha Urea (90 kg/ha N)
	4 August	70 kg/ha Urea (32 kg/ha N)
Fungicide:	30 May	Prosaro 450ml/ha
	30 September	Aviator Xpro 800 mL/ha