



2016 GRDC Imidazoline Tolerant Canola NVT Trial

Melissa Welsh NVT Project Lead Living Farm
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Purpose:	To independently assess the potential for current, newly released and varieties close to commercial release in various locations and environments.
Location:	Dandaragan – West Midlands Group Main Field day site.
Soil Type:	Brown grey sand to yellow brown sand at depth.
Soil Test Results:	
0-10cm	
Nitrate Nitrogen	35mg/kg
Ammonium Nitrogen	3mg/kg
P	20mg/kg
K	30mg/kg
S	4.8mg/kg
Organic Carbon (%)	0.88%
Conductivity (EC)	0.094 ds/m
pH (water)	6.1
pH (CaCl ₂)	5.5
10-30cm	
Nitrate Nitrogen	7mg/kg
Ammonium Nitrogen	1mg/kg
P	12mg/kg
K	15mg/kg
S	3.5mg/kg
Boron	0.22mg/kg
Organic Carbon (%)	0.29%
Conductivity (EC)	0.021 ds/m
pH (water)	5.8
pH (CaCl ₂)	4.8
Rotation:	2015 Wheat
Growing Season Rainfall (April- October 2015):	572mm

BACKGROUND SUMMARY

The aim of the National Variety Trial (NVT) program is to generate independent information for growers and industry about recently released or those due to be released varieties of winter field crops relative to the current commercial varieties grown in the area. Trial data

can be compared by year/s, location and variety. This data is an important decision support tool for growers when assessing if they are growing the right varieties for their farm business.

TRIAL DESIGN

NVT trials are replicated three times (6 ranges, 2 ranges in each replicate) and randomized.

Plot size: 1.52m x 8m

Machinery use: Small plot seeder (row spacing 25.4cm)

Repetitions: 3 replicates

Crop type and varieties used: Various imidazoline tolerant canola varieties

Seeding rates and dates: Trial was sown on the 22/04/16 at 2.9kg/ha

Fertilizer rates and dates:

At seeding: Gusto Gold 100kg/ha + Urea 50kg/ha

Post-emergent: SOA 200kg/ha 22/06/2016

Flexi-N 50L/ha 29/06/2016

Flexi-N 40L/ha 7/07/2016

Herbicide rates and dates:

Pre-emergent: Propyzamide 1L/ha + Treflan 1.5L/ha + Glyphosate 1.2L/ha + Lontrel (750g/kg) 60g/ha + Intervix 500ml/ha + Talstar 200ml/ha + Lorsban 500ml/ha – 22/04/2016

Post-emergent: Clethodim 500ml/ha + Intervix 500ml/ha – 14/05/2016.

Fungicides: Prosaro 400ml/ha 29/06/2016

Insecticides: Transform 100ml/ha 7/07/2016

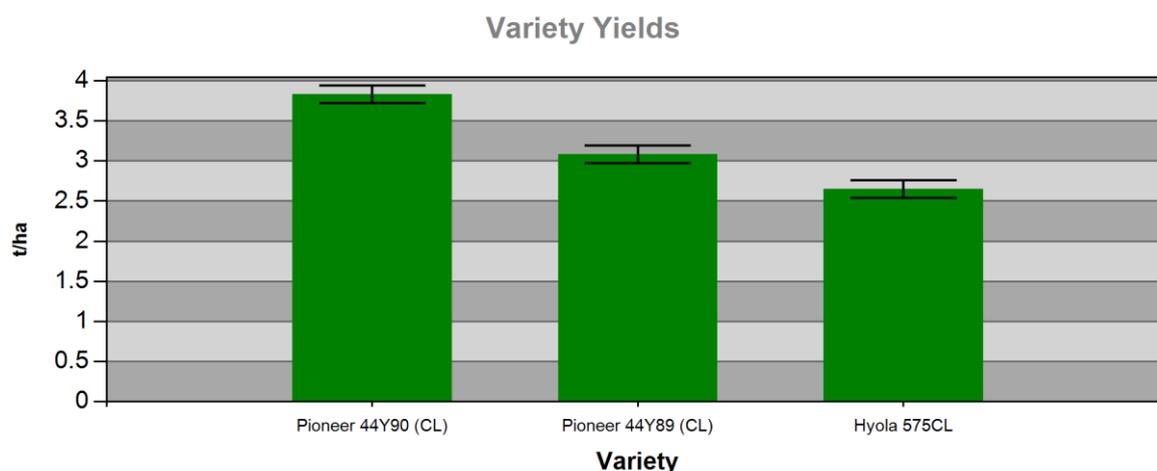
Desiccation: Reglone 2L/ha 1/11/2016

TRIAL LAYOUT

	Range 1	Range 2	Range 3	Range 4	Range 5	Range 6
Row 1	Pioneer 44Y90 (CL)	Pioneer 44Y89 (CL)	PHI-1601	Hyola 575CL	PHI-1602	PHI-1603
Row 2	Hyola 575CL	PHI-1602	Pioneer 44Y90 (CL)	PHI-1603	Pioneer 44Y89 (CL)	PHI-1601
Row 3	PHI-1603	PHI-1601	PHI-1602	Pioneer 44Y89 (CL)	Hyola 575CL	Pioneer 44Y90 (CL)



RESULTS



Site Mean: 3.53t/ha

LSD: 0.22t/ha

CV: 3.9%

Probability: <0.001

Analysis and Receival Standards

	Analysis	Receival Standards	
	12/01/2017	9/11/2016	
	<i>Predicted Yield</i>	<i>Oil</i>	<i>Protein - seed</i>
	<i>tonnes/ha</i>	<i>%</i>	<i>%</i>
Pioneer 44Y90 (CL)	3.83	47.90	19.90
Pioneer 44Y89 (CL)	3.08	46.40	19.90
Hyola 575CL	2.65	45.70	20.60

DISCUSSION

The trial was sown into good moisture and warm soil in late April, allowing for excellent establishment and yield potential. The rainfall received was excellent (572mm GSR) and consistent throughout the growing season, setting the trial up for good yield potential.

Variety Summary

In this trial only the three mentioned varieties are commercially released so only these have been discussed.

44Y90CL is a new hybrid variety developed by Pioneer and was the highest yielding variety in this trial. It is an early to mid-maturity clearfield variety. As with all hybrids it has increased early vigour over open pollinated lines providing crop competition to emerging weeds. It has shown to be a consistent yielding variety with good adaptability across low to medium rainfall regions.

44Y89CL is also an early to mid-maturity clearfield variety from Pioneer and is ideally suited to low to medium rainfall regions. It has shown too consistently yield although in this trial was significantly lower (0.5t/ha) than 44Y90CL.

Hyola 575CL performed significantly lower than the other above varieties, indicating that the newer germplasm is worth considering if this technology is required.

PAPER REVIEWED BY: Richard Devlin

CONTACT DETAILS:

Melissa Welsh

Living Farm Pty Ltd

melissa@livingfarm.com.au

