



## 2016 GRDC Triazine Tolerant Canola NVT

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<b>Purpose:</b>	To independently assess the potential for current, newly released and varieties close to commercial release in various locations and environments.
<b>Location:</b>	Dandaragan – West Midlands Group Main Field day site.
<b>Soil Type:</b>	Brown grey sand to yellow brown sand at depth.
<b>Soil Test Results:</b>	
<b>0-10cm</b>	
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 <sub>2</sub> )	5.5
<b>10-30cm</b>	
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 <sub>2</sub> )	4.8
<b>Rotation:</b>	2015 Wheat
<b>Growing Season Rainfall (April- October 2015):</b>	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 triazine 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 + Lontrel (750g/kg) 60g/ha + Talstar 200ml/ha + Lorsban 500ml/ha + 1.1kg/ha Atrazine – 22/04/2016

**Post-emergent:** 1.1kg/ha Atrazine + 500ml/ha Clethodim 13/05/2016

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

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

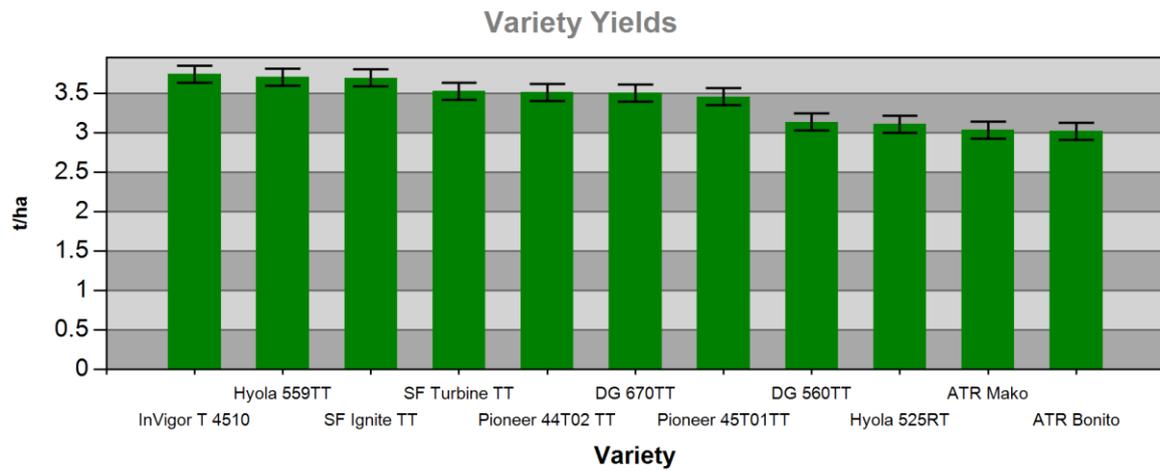
**Desiccation:** Reglone 2L/ha 1/11/2016

## TRIAL LAYOUT

	Range 1	Range 2	Range 3	Range 4	Range 5	Range 6
Row 1	Pioneer 44T02 TT	SFR65-012TT	Hyola 559TT	Hyola 525RT	SF Turbine TT	Pioneer 45T01TT
Row 2	PHT-1606	ATR Mako	SFR65-013TT	DG 560TT	PJTT3	ATR Bonito
Row 3	SFR65-014TT	Filler	ATR Bonito	Pioneer 44T02 TT	Hyola 525RT	ATR Mako
Row 4	DG 560TT	Pioneer 45T01TT	SFR65-014TT	Filler	PHT-1606	Hyola 559TT
Row 5	SF Turbine TT	SFR65-013TT	PJTT3	SFR65-012TT	Pioneer 44T02 TT	SFR65-014TT
Row 6	ATR Bonito	Hyola 525RT	Pioneer 45T01TT	PHT-1606	SFR65-013TT	SFR65-012TT
Row 7	Hyola 559TT	PJTT3	ATR Mako	SF Turbine TT	Filler	DG 560TT



## RESULTS



**Site Mean: 3.43t/ha**

**LSD: 0.22t/ha**

**CV: 3.7%**

**Probability: <0.001**

## Analysis and Receival Standards

	<b>Analysis</b>	<b>Receival Standards</b>	
	<i>12/01/2017</i>	<i>9/11/2016</i>	
	<i>Predicted Yield</i>	<i>Oil</i>	<i>Protein - seed</i>
	<i>tonnes/ha</i>	<i>%</i>	<i>%</i>
InVigor T 4510	3.75	46.20	20.60
Hyola 559TT	3.71	47.70	20.80
SF Ignite TT	3.70	46.60	19.50
SF Turbine TT	3.53	46.50	20.30
DG 670TT	3.51	46.20	19.50
Pioneer 44T02 TT	3.51	47.90	20.60
Pioneer 45T01TT	3.46	48.30	20.60
DG 560TT	3.14	45.50	20.30
Hyola 525RT	3.11	47.90	20.70
ATR Mako	3.04	46.40	20.60
ATR Bonito	3.02	48.10	20.40

## **DISCUSSION**

This trial was sown into warm and moist soil on the 22<sup>nd</sup> April, providing excellent conditions for establishment. The rainfall received was excellent (527mm GSR) and was consistent throughout the growing season, setting the trial up for a good yield potential. The trial established well and had strong early growth up until the early cabbage stage where it began to look like it was lacking nitrogen. The three NVT canola trials (TT, IT and RR) were next to each other, and the TT probably looked better than the RR trial. As a result of all the trials lacking vigour they were given higher than anticipated levels of nitrogen. The trials recovered somewhat and ended up significantly exceeding our yield estimates, which was partly attributed to the very large seed size obtained in most varieties as well as the soft finish to the season

### Variety Summary

The top performer in this trial was InVigor T 4510 the newly released hybrid TT from Bayer, with a massive yield of 3.75t/ha. It is a mid to early maturing variety with adaptability in low to medium rainfall zones.

Hyola 559TT has been the benchmark TT Hybrid in the past couple of years and has performed well in this trial, with the second top yield of 3.71t/ha. It is a mid-maturity variety with good oil content. In this trial it has performed very similarly to InVigor T 4510 for yield.

Performing extremely well in its first year of NVT trials was SF Ignite TT from SeedForce with a yield of 3.7t/ha. It is a new variety from Seed Force and a first time entry into the NVT program in WA. It is a mid-maturing hybrid with moderate height. Suited to medium–high rainfall zones.

Another SeedForce line, SF Turbine TT also performed well. It was slightly back on yield from SF Ignite TT, presumably due to it's early to early mid maturity not being able to capture the full potential of the season when compared to the mid-maturity SF Ignite TT.

Pioneer's new hybrid 44T02 is an early to mid-maturity variety suited to low and medium rainfall areas. It has the best blackleg rating (R) of the new TT varieties.

Hyola 525RT was the lowest yielding of the hybrids, but with its dual RR/TT tolerance is still a tool that many growers will be looking to use in their system.

Both Mako and Bonito performed similarly. Previously Bonito has been the standard, widely adapted TT OP. It has still done well, but in a year of very high yields the Hybrids have shown their higher yield potentials.

**PAPER REVIEWED BY:** Richard Devlin

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