



Pioneer 44Y89CL, Hyola 559TT and Nuseed Diamond all perform well in 2015

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NVT canola trials conducted across South Australia in 2015 saw just a few canola varieties performing consistently well in each of the herbicide tolerance groups. For the third year running Nuseed Diamond and Hyola 559TT topped the conventional and triazine tolerant canola trials respectively and Pioneer 44Y89CL out-yielded the competition for the second year running in the imidazolinone tolerant (Clearfield) trials.

NVT Canola trials were established at 14 sites, across South Australia in 2015. These comprised of separate 37 trials, with varieties in each herbicide tolerance group evaluated separately. Of the 37 trials four had to be abandoned for a range of reasons, including drought stress and herbicide residues.

The 2015 growing season suited canola slightly better than other 'break-crops' with most varieties and locations having finished flowering prior to the extremely hot weather conditions experienced in the first weekend of October, resulting in grain yields in line with previous years.

NVT trials across Eyre Peninsula, the Mid North, Yorke Peninsula and the Murray Mallee were sown between 22nd April and the 3rd May, whereas seeding of the South East trials was delayed until end-May/ early June to match the first rains for the growing season.

Trials on the Lower Eyre Peninsula yielded between 1.73 t/ha and 2.23 t/ha. Canola sites Upper Eyre Peninsula yielded slightly lower, with yields between 1.46 t/ha and 1.69 t/ha depending on herbicide tolerance group.

NVT canola trials in the Mid North and Yorke Peninsula performed well, yielding from 1.60 t/ha at Riverton and 2.7 t/ha at Arthurton. Yields of the South East trials were lower than elsewhere in the state, ranging from 0.67 t/ha at Keith to 1.51 t/ha at Moyhall, thought to be due below average rainfall in the region.

Comparisons across herbicide tolerance groups should not be made. Although the trials are located adjacent to each other and receive many of the same management practices NVT trials are



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not structured to allow direct comparisons between the herbicide tolerance groups.

NVT canola trials were treated with Impact-in-furrow (Flutriafol at 400 g a.i. per hectare) in 2015. This reduced the effect that blackleg had across trials, an important factor to consider when selecting varieties based on these results.

Conventional varieties

Conventional canola variety trials were harvested at eight sites across South Australia in 2015, with only four commercial varieties being evaluated.

Nuseed Diamond produced high yields relative to other conventional varieties at all sites, with the exception of Mt Hope, where Nuseed Diamond was observed to show more symptoms than other cultivars of Sclerotinia stem rot. It should be noted that the Sclerotinia observed in Nuseed Diamond at Mount Hope in 2015 was not because the variety is more susceptible to the disease, but thought to be associated with the early flowering time dropping petals infected with disease into leaf petioles at a time when humidity is high and providing good conditions for the disease to proliferate.

Clearfield varieties

Clearfield (Imidazolinone tolerant) varieties were evaluated at 14 sites in 2015. With up to ten commercial varieties being evaluated at each site.

The stand out Clearfield variety across South Australia in 2015 was Pioneer 44Y89CL. The other imidazolinone tolerant variety to perform at many sites in 2015 was Banker CL. Banker CL is a newly released variety from Heritage seeds, it starts flowering around 11-15 days later than Pioneer 44Y89CL. In 2015, generally speaking, at sites where Pioneer 44Y89CL performed poorly Banker CL performed well.

Long term yields indicate that Banker CL performs well in all mid-season regions and Pioneer 44Y89CL performing well in the early-season regions.

Triazine tolerant varieties

Eleven Triazine Tolerant (TT) canola sites were successfully



harvested in 2015, with sites at Keith having to be abandoned due to herbicide residues and the Frances and Moyhall sites lost due to high variability.

Hyola 559 TT performed well across all regions in South Australia in 2015, as it did in 2013 and 2014. Hyola 559 TT has been in widespread evaluation for four years and long term yields show it as having the highest relative yield in all mid-season maturing regions

Two newly released varieties, SF Turbine TT and DG560TT, were only evaluated at a few sites in 2015. At sites where they were evaluated they both ranked highly for yield, outyielding Hyola559TT.

Growers currently have a choice of six open pollinated TT (ATR Bonito, ATR Gem, ATR Stingray, ATR Wahoo, ATR Mako and Pioneer Sturt TT). ATR Bonito, ATR Wahoo and ATR Mako all have end point of \$5 per tonne.

Of the open pollinated varieties, newly released ATR Mako performed the best for yield across South Australian mid maturity NVT sites in 2015. This, in general terms is a few percentage points behind the hybrid TT varieties.

Long term yields show ATR Bonito being higher than ATR Stingray across the early maturing regions of South Australia and ATR Mako having the highest long term yields in the mid maturing regions, after two years of evaluation.

In 2015 newly released specialty TT canola variety Monola 416TT yielded on par with other triazine tolerant varieties at sites where it was evaluated, long term yields have it yielding comparatively lower. Specialty type varieties may be considered as options based their yields and on the premium price being offered for production. They are only likely to be grown under a closed loop system in selected areas. ■

■ **More information:**

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Canola

SA Canola Variety NVT Trial Yield Performance (2015, expressed as % of site average yield)														
Variety	LOWER EP		UPPER EP		YORKE PENINSULA		MID NORTH			MALLEE	SOUTH EAST			
	Mid		Early		Mid	Early	Mid			Early	Early	Mid		
	Mt Hope	Yeelanna	Lock	Minn- ipa	Arthur- ton	Min- laton	Spal- ding	River- ton	Turret- field	Lam- eroo	Keith	Border- town	Frances	Moyhall
CONVENTIONAL														
AV Garnet	94	96	88	No Trial	91	No Trial	90	No Trial	No Trial	No Trial	No Valid Results	88	76	85
AV Zircon	107	88	84		89		77					84	84	73
Nuseed Diamond	85	96	119		103		112					120	136	102
Victory V3002	103	94	104		98		97					86	86	100
Site av yield (t/ha)	2.05	2.23	1.69		2.72		2.03					1.12	0.88	1.45
LSD (%)	9	9	8	4	6	13	18	15						
CLEARFIELD														
Archer	104	101	-	-	95	80	94	78	96	-	86	83	103	107
Banker CL	113	107	82	90	105	105	108	125	111	83	92	108	91	103
Hyola 474CL	89	99	97	105	102	96	88	86	97	68	72	89	81	78
Hyola 575CL	86	94	95	100	100	98	83	82	94	72	75	98	65	75
Hyola 577CL	91	99	-	-	97	-	92	84	96	-	-	62	78	88
Pioneer 44Y87 (CL)	91	102	101	92	94	88	97	94	95	90	105	92	-	94
Pioneer 44Y89 (CL)	91	100	108	102	102	108	108	119	99	130	116	119	122	92
Pioneer 45Y86 (CL)	97	98	-	-	100	89	94	85	94	-	-	107	-	-
Pioneer 45Y88 (CL)	114	-	-	-	96	-	102	105	92	-	-	66	97	113
Rimfire CL	94	95	98	92	101	90	96	92	94	89	66	100	79	90
Site av yield (t/ha)	2.13	2.12	1.46	1.63	2.63	1.70	1.79	1.87	1.92	0.50	0.67	0.84	0.80	1.51
LSD (%)	9	9	9	5	5	7	7	7	8	11	15	18	20	15
TRIAZINE TOLERANT														
ATR Bonito	102	97	100	104	94	93	104	95	99	91	No Valid Results	112	No Valid Results	No Valid Results
ATR Gem	105	105	-	-	94	86	101	89	90	-		92		
ATR Mako	94	106	-	-	107	108	103	117	103	-		100		
ATR Stingray	-	-	95	102	97	101	92	-	100	103		-		
ATR Wahoo	110	94	-	-	-	-	88	91	-	-		76		
DG 560TT	-	-	-	-	107	109	108	111	112	-		118		
Hyola 450TT	92	92	101	102	104	104	108	100	108	79		-		
Hyola 559TT	104	102	106	103	114	104	110	106	112	106		125		
Hyola 650TT	107	112	-	-	106	-	109	102	108	-		69		
Monola 314TT	-	-	-	-	-	-	86	86	92	119		100		
Monola 416TT	-	-	-	-	97	101	96	113	104	110		109		
Monola 515TT	-	-	-	-	87	78	76	79	76	47		63		
Pioneer 45T01TT	-	98	-	-	95	-	-	110	104	-		113		
Pioneer Atomic TT	-	91	97	92	-	93	95	-	-	88		-		
SF Turbine TT	-	-	-	-	106	114	117	119	110	-		120		
Site av yield (t/ha)	1.93	1.78	1.59	1.68	2.12	1.63	1.70	1.6	1.85	0.47		0.8		
LSD (%)	10	11	9	5	6	7	7	8	9	12		19		
Date sown	28-Apr	27-Apr	29-Apr	28-Apr	3-May	1-May	28-Apr	22-Apr	23-Apr	1-May	21-May	25-May	26-May	3-Jun
Soil Type	LS	CL	SL	L	CL	SCL	SCL	CL	LFSY	SL	CL	CL	CL	CL
Jan-Mar/ Apr-Oct rf	13 / 284	23 / 295	14 / 204	14 / 258	53 / 238	50 / 267	60 / 325	57 / 327	48 / 234	56 / 186	73 / 199	51 / 221	78 / 253	109 / 251
pH (H ₂ O)	5.4	8.0	8.5	8.3	8.3	8.0	5.9	6.8	7.9	8.2	6.6	6.6	6.9	6.9
Previous Crop	Wheat	Wheat	Wheat	Wheat	Wheat	Wheat	Legume pasture	Wheat	Barley	Wheat	Faba	Grass pasture	Pasture Spray- topped	Faba Beans
Stress Factors	-	-	-	-	-	-	dl	dl	dl	f	cd	dl	dl	w
Data source: GRDC/NVT.														
Comparisons cannot be made across chemistry types as the trials were not structured to allow this.														
dl = post flowering moisture stress w = weeds cd = chemical damage (residue) f = frost														



Canola

SA Canola Mid-Season Canola Long Term Yield Performance (2011-2015, expressed as % of site average yield)								
	LOWER EP		YORKE PENINSULA		MID NORTH		SOUTH EAST	
	% Site mean	# sites	% Site mean	# sites	% Site mean	# sites	% Site mean	# sites
CONVENTIONAL								
AV Garnet	104	10	102	4	101	4	104	14
AV Zircon	101	10	101	4	100	4	104	14
Hyola 50	108	8	113	3	111	3	113	11
Nuseed Diamond	111	7	117	2	118	2	111	7
Victory V3002	107	6	107	3	108	3	107	12
Site av yield (t/ha)	1.97		2.18		1.92		1.70	
CLEARFIELD								
Archer	106	6	104	4	102	15	107	14
Banker CL	114	2	109	2	113	5	111	4
Carbine	98	4	101	3	101	7	98	6
Hyola 474CL	98	8	100	5	102	15	101	11
Hyola 575CL	99	8	100	5	101	15	102	14
Hyola 577CL	102	4	99	3	101	8	101	8
Pioneer 44Y87 (CL)	102	4	103	3	103	9	103	8
Pioneer 44Y89 (CL)	103	3	108	2	108	7	106	6
Pioneer 45Y86 (CL)	104	8	106	5	104	15	106	12
Pioneer 45Y88 (CL)	107	5	103	4	105	12	105	11
Rimfire CL	102	3	105	2	103	7	106	8
Site av yield (t/ha)	1.99		2.54		2.23		1.70	
TRIAZINE TOLERANT								
ATR Bonito	102	6	98	4	100	12	98	11
ATR Gem	99	10	95	4	96	13	96	13
ATR Mako	102	4	100	2	100	6	101	6
ATR Stingray	94	8	93	5	97	13	90	8
ATR Wahoo	101	8	94	2	95	10	97	11
DG 560TT					104	3		
Hyola 450TT	98	6	101	3	100	7	100	4
Hyola 559TT	105	7	106	4	105	13	106	11
Hyola 650TT	104	5	101	2	102	8	105	7
Monola 314TT	89	2			88	8	85	8
Monola 416TT			86	2	95	6	90	6
Monola 515TT			86	2	86	6	87	6
Pioneer 45T01TT	102	3	101	2	100	7	101	5
Pioneer Atomic TT	103	2	101	2	100	9	101	5
SF Turbine TT					107	3		
Site av yield (t/ha)	1.97		2.54		2.23		1.70	
Data source: GRDC/NVT.								
Comparisons cannot be made across chemistry types as the trials were not structured to allow this								



Canola

SA Canola Variety NVT Trial Oil Content (2015, expressed as % Oil Content)														
Variety	LOWER EP		UPPER EP		YORKE PENINSULA		MID NORTH			MALLEE	SOUTH EAST			
	Mid		Early		Mid	Early	Mid			Lameroo	Early	Mid		
	Mt Hope	Yeelanna	Lock	Minnipa	Arthurton	Minlaton	Spalding	Riverton	Turret-field		Keith	Border-town	Frances	Moyhall
CONVENTIONAL														
AV Garnet	44.9	-	43.0	No Trial	42.8	No Trial	42.5	No Trial	No Trial	No Trial	No valid result	38.2	37.2	42.1
AV Zircon	45.1	44.5	40.8		41.1		41.7					37.7	38.3	41.3
Nuseed Diamond	45.2	45.3	42.6		42.9		41.1					35.9	37.2	39.3
Victory V3002	44.0	44.5	43.5		42.2		42.6					38.0	38.2	41.9
CLEARFIELD														
Archer	44.0	44.4	-	-	41.4	36.9	42.2	35.0	41.4	-	36.1	37.6	39.3	41.7
Banker CL	45.4	43.6	41.7	43.2	41.5	37.6	41.4	37.8	41.0	33.2	35.5	37.3	38.5	41.0
Hyola 474CL	44.3	43.4	41.9	43.9	41.9	39.6	41.9	36.4	43.1	37.3	36.0	38.8	40.3	41.5
Hyola 575CL	44.6	44.8	42.2	44.5	42.6	39.8	41.9	38.2	43.2	37.2	36.9	39.5	39.7	41.1
Hyola 577CL	46.1	43.5	-	-	44.1	-	42.7	38.3	42.5	-	-	38.6	40.7	42.0
Pioneer 44Y87 (CL)	43.4	41.8	41.2	43.3	41.1	38.0	41.7	37.1	41.0	35.3	35.4	35.9	-	41.2
Pioneer 44Y89 (CL)	44.2	42.6	42.1	43.7	40.6	38.2	41.5	38.2	43.3	37.0	34.5	37.6	37.8	41.0
Pioneer 45Y86 (CL)	44.4	43.3	-	-	41.1	37.3	42.2	37.4	42.2	-	-	37.0	-	-
Pioneer 45Y88 (CL)	44.0	-	-	-	41.7	-	41.2	35.8	41.6	-	-	36.4	37.5	40.1
Rimfire CL	43.0	45.3	40.5	42.0	40.6	36.5	40.1	36.9	40.6	35.6	34.8	38.2	38.3	41.2
TRIAZINE TOLERANT														
ATR Bonito	45.7	43.8	41.8	45.5	41.5	38.4	41.1	36.4	42.4	34.7	No valid result	37.1	No valid result	No valid result
ATR Gem	46.4	44.2	-	-	41.2	38.5	41.0	36.7	42.3	-				
ATR Mako	44.3	41.7	-	-	41.3	36.7	40.0	37.3	42.1	-				
ATR Stingray	-	-	41.8	44.8	41.8	39.8	40.6	-	43.3	35.6				
ATR Wahoo	46.1	45.0	-	-	-	-	-	36.4	41.3	-				
DG 560TT	-	-	-	-	40.7	38.3	40.4	36.7	41.8	-				
Hyola 450TT	44.9	43.4	41.8	44.1	41.3	40.1	42.4	37.5	43.1	37.0				
Hyola 559TT	45.9	43.7	42.1	44.8	42.5	39.1	42.2	38.0	43.2	35.6				
Hyola 650TT	45.7	43.3	-	-	41.8	-	41.8	37.1	42.2	-				
Monola 314TT	-	-	-	-	-	-	39.4	37.6	42.5	35.2				
Monola 416TT	-	-	-	-	42.6	39.8	41.8	38.2	43.7	35.0				
Monola 515TT	-	-	-	-	41.8	37.5	41.1	37.4	41.9	34.1				
Pioneer 45T01TT	-	44.2	-	-	43.0	-	-	38.7	44.2	-				
Pioneer Atomic TT	-	42.6	40.1	43.3	-	38.0	40.3	-	-	35.0				
SF Turbine TT	-	-	-	-	40.6	36.0	40.5	35.1	40.7	-				
Data source: GRDC/NVT.														
Comparisons cannot be made across chemistry types as the trials were not structured to allow this														



Canola

SA Canola Early-Season Canola Long Term Yield Performance (2011-2015, expressed as % of site average yield)						
	UPPER EP		YORKE PENINSULA		SOUTH EAST	
	% Site mean	# sites	% Site mean	# sites	% Site mean	# sites
CONVENTIONAL						
AV Garnet	101	5	No Trial		107	4
AV Zircon	91	5			98	4
Hyola 50	112	4			119	4
Nuseed Diamond	130	2			119	2
Victory V3002	-	-			109	2
Site av yield (t/ha)	1.14				1.48	
CLEARFIELD						
Archer	-	-	106	3	109	4
Banker CL	104	2				
Carbine	104	3	103	2	108	3
Hyola 474CL	106	7	109	4	105	5
Hyola 575CL	106	5	109	4	105	5
Pioneer 43C80 (CL)	90	2	-		86	2
Pioneer 43Y85 (CL)	97	4	97	3	100	4
Pioneer 44Y87 (CL)	102	6	105	3	108	4
Pioneer 44Y89 (CL)	111	4	110	3	113	3
Pioneer 45Y88 (CL)	-	-	-		98	2
Rimfire CL	94	4	92	2	88	2
Site av yield (t/ha)	1.30		2.16		1.32	
TRIAZINE TOLERANT						
ATR Bonito	101	5	98	3	96	3
ATR Gem			97	3	95	3
ATR Mako			101	2		
ATR Stingray	101	6	98	4	93	4
Hyola 450TT	108	4	109	3	114	2
Hyola 559TT	110	5	110	3	112	3
Monola 314TT					93	2
Monola 515TT			87	2		
Pioneer 45T01TT	98	2	103	2	104	2
Pioneer Atomic TT	101	4	105	3	107	3
Pioneer Sturt TT	100	4	94	3	92	4
Site av yield (t/ha)	1.33		2.16		1.48	
Data source: GRDC/NVT.						
Comparisons cannot be made across chemistry types as the trials were not structured to allow this						