



2015

Canola variety guide for WA

- Triazine tolerant (TT)
- Triazine tolerant with Roundup Ready® (TT-RR)
- Roundup Ready® (RR) and
- Clearfield (CL) canola

Supporting your success

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- CBHgroup

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Introduction

The purpose of the canola variety guide is to provide an easy format for farmers to compare canola varieties. Comparative information about yield, oil and blackleg resistance is included.

Information is provided for the following herbicide tolerance types; Triazine tolerant (TT), Triazine tolerant combined with Roundup Ready® (TT-RR), Roundup Ready® (RR) and Clearfield (CL).

All currently marketed herbicide tolerant canola varieties are included in this guide. We have also included some older varieties, even though they are no longer available from the licensees (ATR Cobbler, ATR Snapper, Tanami, Telfer and Jackpot TT). We have included these so farmers can compare their performance with the newer varieties.

Inclusion in this guide does not mean that a variety is recommended by DAFWA.

The vast majority (87%) of the WA canola crop is triazine tolerant (TT). The area of Roundup Ready® canola (RR) increased from 8% to 13% last year (see Table 1).

The most popular canola varieties grown last year were Crusher TT, ATR Stingray, ATR Cobbler, Hyola 404RR and ATR Snapper. These five varieties made up over 70% of hectares sown to canola in the 2013/14 season (see Table 2).

Table 1 Canola herbicide systems in WA

Herbicide System	2012/13 (%)	2013/14 (%)
Triazine tolerant (TT)	87	83
Roundup Ready® (RR)	8	13
Clearfield (CL)	4	3
Conventional (CC)	1	1

Data courtesy of CBHgroup.

Data shows percentage of area planned to be sown under different herbicide systems.

* CC = Conventional canola, with no specific herbicide tolerance.

Table 2 Canola varieties in WA

Variety	Group	11/12	12/13	13/14
Crusher TT	TT	1.9	21.3	23.0
ATR Stingray	TT	0.4	7.9	19.3
ATR Cobbler	TT	41.3	29.6	14.6
Hyola® 404RR	RR	0.3	3.4	7.4
ATR Snapper	TT	0.1	2.7	6.7
Telfer	TT	2.7	4.4	5.1
ATR Gem	TT		0.4	3.8
Jackpot TT	TT		0.4	3.3
Pioneer® 43Y23 (RR)	CL		0.4	1.9
Tanami	TT	8.2	5.0	1.4
Pioneer® 45Y86 (CL)	IT			1.0
GT Cobra	RR		1.1	0.9
Nuseed GT-50	RR			0.9
Thunder TT	TT	6.6	3.2	0.9
AV Garnet	CC*	0.5	0.6	0.9
ATR Stubby	TT	2.0	1.9	0.7
Pioneer® 44Y84 (CL)	CL	1.3	0.9	0.6
GT Viper	RR		0.6	0.5
Tornado TT	TT	3.8	2.0	0.5
ATR Beacon	TT	1.7	1.3	0.5
Thumper TT	TT		0.0	0.5
Hyola® 559TT	TT			0.5
Tawriffic TT	TT	2.6	1.2	0.4
Other		26.6	11.7	4.7

Data courtesy of CBHgroup.

Varieties shown are > 0.4% of canola crop area in 2012-13.

* CC= Conventional canola, with no specific herbicide tolerance.

Agzones

Agzones have been developed to group together environmental regions that give similar crop performance. The six Agzones are shown in Figure 1.

Agzone 1 is the northern medium and high rainfall area, including Mingenew and Northampton. Agzone 2 is the northern/central medium rainfall area, including Coorow, Northam and Wagin. Agzone 3 is the southern/central high and medium rainfall areas including Williams and Kojonup. Agzone 4 is the north/central low rainfall area, east of Mullewa and Merredin. Agzone 5 is the southern low and medium rainfall area, including Newdegate and Salmon Gums. Agzone 6 is the south coast high rainfall area, including Wellstead and Gibson.

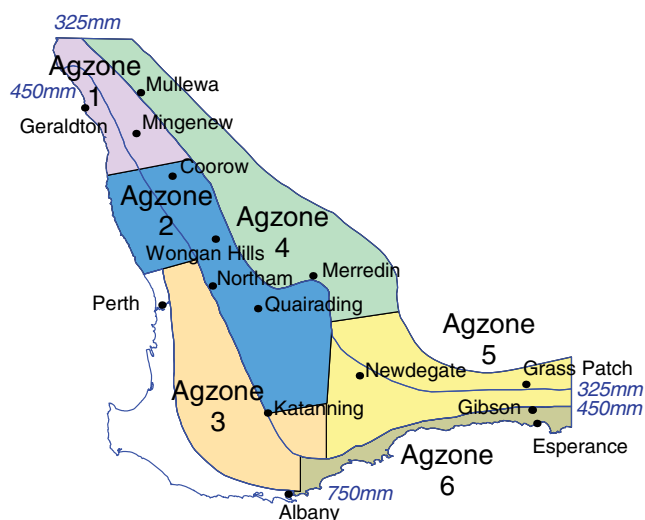


Figure 1. Agzones of Western Australia.

1. Yield and oil information (Tables 3, 6 and 7)

The yield and oil information is provided from the National Variety Trials Project (NVT).

There are two series of NVT trials for canola, the early maturity series and mid-maturity series. The early maturity trials are in the areas where early maturing varieties are needed; in northern areas and in the lower rainfall areas of central and southern areas (across Agzones 1, 2, 3, 4 and 5). Whereas the mid-maturity trials are in the medium and high rainfall areas in central and southern areas (in Agzones 2, 3 and 6).

Breeding company representatives nominate which series their varieties are tested in. Many varieties are in both early and mid-maturity trials.

The yield data presented is the predicted yield. Predicted yields are derived from the long term multi environment trial data (MET), from 2009 to 2013. Tables 3, 6 and 7 show the predicted yield of each variety, relative to a 'standard' variety. For example, in Table 1a, the triazine tolerant variety, ATR Stingray, has a predicted yield of 1.08 t/ha, in the early maturity NVT trials, in Agzone 1. The predicted yield of ATR Bonito is 138%, compared with ATR Stingray, in the same zone (you can calculate that the predicted yield of ATR Bonito is 1.49 t/ha).

The oil data presented is the average oil percentage from all trials, for each variety.

The number of trials is shown in each yield table. Data is less reliable where there are only a few trials.

For further information about long term yields or individual NVT trial results, please use NVT online at nvtonline.com.au.

2. Commercial and agronomic information (Tables 4, 5 and 8)

Open pollinated and hybrid canola

Open pollinated canola has relatively uniform genetics within a population and is approximately 75% self-pollinating, so each generation mostly retains the characteristics of the population. Retained seed is suitable to use for seeding.

Hybrid seed is produced by controlled cross pollination of two distinctly different parent lines which produce hybrid seed (F1). Hybrids may show better performance than either parent because of hybrid vigour.

Retaining seed from hybrids leads to variability in the next crop (F2) and has negative effects on plant vigour, uniformity of plant height, uniformity of flowering, blackleg resistance, lodging resistance, oil levels and all their combined effects on reducing yields.

Blackleg

The blackleg information is provided from the GRDC Fact Sheet, *2014 Blackleg Management Guide*. Please refer to this for further information about the importance of blackleg ratings, resistance groups and management of blackleg (search for 2014 blackleg management guide).

Genetically modified (GM) canola

All Roundup Ready® (RR) canola is genetically modified, including varieties that are triazine tolerant with Roundup Ready® (TT+RR).

Table 3a Early maturity triazine tolerant (TT) canola and TT-RR canola NVT trials (2009-2013); predicted yields (GY, as a percentage of ATR Stingray), oil % and number of trials (n).

	Agzone 1			Agzone 2			Agzone 3			Agzone 4			Agzone 5		
ATR Stingray (t/ha)	1.08	42.5	7	1.72	43.0	4	1.68	2	0.68	42.3	2	1.45	43.0	13	
	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n	GY%	oil%	GY%	oil%	n	
ATR Bonito	138	40.8	3	92	44.4	3				112	43.8	2	98	46.0	7
ATR Cobbler	124	42.7	8	81	40.4	3	90	3				87	40.0	12	
ATR Gem	133	40.2	3	92	45.6	3				99	43.2	2	91	45.3	7
ATR Snapper	127	44.5	6	91	43.7	2	97	2				94	43.4	9	
ATR Wahoo												87	46.7	2	
Crusher TT	127	37.3	3	98	44.5	3						96	42.6	9	
Hyola® 450TT												99	47.8	4	
Hyola® 555TT	143	41.2	3	103	42.0	3						98	40.8	4	
Hyola® 559TT	158	41.1	3	99	46.6	3						98	46.4	6	
Jackpot TT	136	40.5	2									82	42.4	2	
Sturt TT [Ⓛ]	134	42.2	5	92	42.4	4	101	2	110	41.9	2	97	43.6	10	
Tanami	109	40.8	4									83	36.8	6	
Telfer	88	42.6	9	85	41.7	3	90	3	93	41.9	2	91	43.3	13	
Thumper TT												83	42.8	5	
TT + RR															
Hyola® 525RT®				95	47.3	2						98	47.4	2	

Table 3b Mid-maturity triazine tolerant (TT) canola and TT-RR canola NVT trials (2009-2013); predicted yields (GY, as a percentage of Crusher TT), oil % and number of trials (n).

	Agzone 2			Agzone 3			Agzone 6		
Crusher TT (t/ha)	1.79	42.4	15	2.40	43.0	13	2.03	43.5	9
	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n
ATR Bonito	101	43.2	14	98	45.9	6	99	46.4	5
ATR Cobbler	84	42.5	28	78	42.6	14	69	44.1	11
ATR Gem	95	43.7	18	96	45.7	9	97	45.7	7
ATR Snapper	93	45.4	18	87	46.1	9	79	46.6	8
ATR Stingray	94	43.3	25	93	44.1	12	91	45.3	10
ATR Wahoo	95	42.6	12	94	45.2	6	97	45.6	5
Hyola® 450TT	93	45.1	7	101	46.5	3	99	46.7	2
Hyola® 555TT	97	42.1	20	103	43.4	13	102	43.8	11
Hyola® 559TT	100	43.7	12	105	45.9	8	102	45.6	6
Hyola® 650TT	95	45.8	2	106	46.4	3	105	45.5	2
Hyola® 656TT	97	43.9	2	103	44.2	6	103	43.9	4
Jackpot TT	91	41.0	7	96	46.4	3	97	45.5	3
Sturt TT [Ⓛ]	93	41.8	19						
Tanami	72	39.9	12	67	40.3	5	57		2
Telfer	80	42.9	28	73	43.9	4	58	44.9	4
Thumper TT	84	44.9	8	91	44.6	13	95	45.6	10
TT + RR									
Hyola® 525RT®	92	45.3	5				94	46.4	2

Table 4 Triazine tolerant (TT) canola and TT-RR canola; commercial and agronomic information

Variety	Licensee	Release year	Type [^]	Maturity	2014 Blackleg rating (bare seed)	2014 Blackleg rating + jockey ^{®#}	Blackleg resistance group
TT							
ATR Bonito	Nuseed	2013	OP	EM	MR	R-MR	
ATR Cobbler	Nuseed	2007	OP	E			
ATR Gem	Nuseed	2011	OP	EM	MR	R-MR	A
ATR Snapper	Nuseed	2011	OP	EM			
ATR Stingray	Nuseed	2011	OP	E	MR	R	C
ATR Wahoo	Nuseed	2013	OP	ML	MR	R-MR	A
Crusher TT	Pacific Seeds	2010	OP	M	MR-MS		A
Hyola [®] 450TT	Pacific Seeds	2013	Hybrid	ME	R	R	ABD
Hyola [®] 555TT	Pacific Seeds	2010	Hybrid	ME	R		D
Hyola [®] 559TT	Pacific Seeds	2012	Hybrid	M	R	R	
Hyola [®] 650TT	Pacific Seeds	2014	Hybrid	ML	R	R	E
Hyola [®] 656TT	Pacific Seeds	2012	Hybrid	ML	R	R	ABD
Jackpot TT	Pacific Seeds	2011	OP	M			
Sturt TT [Ⓛ]	NPZA	2012	OP	E	MS		
Tanami	NPZA	2006	OP	VE			
Telfer	NPZA	2008	OP	VE			
Thumper TT	Pacific Seeds	2011	OP	ML	R		E
TT-RR							
Hyola [®] 525RT	Pacific Seeds	2014	Hybrid	M	R-MR	R	ABD

Please refer to key below table 5 (at bottom of this page)

Table 5 Roundup Ready[®] (RR) canola; commercial and agronomic information

Variety	Licensee	Release year	Type [^]	Maturity	2014 Blackleg rating (bare seed)	2014 Blackleg rating + jockey ^{®#}	Blackleg resistance group
GT Cobra	Nuseed	2011	OP	EM	R-MR		A
GT Viper	Nuseed	2011	OP	E	MR		
Hyola [®] 400RR	Pacific Seeds	2014	Hybrid	E	R		ABD
Hyola [®] 404RR	Pacific Seeds	2010	Hybrid	EM	R-MR		ABD
Hyola [®] 500RR	Pacific Seeds	2014	Hybrid	M	R		ABD
Hyola [®] 505RR	Pacific Seeds	2010	Hybrid	ME	R		
IH30RR	Bayer	2014	Hybrid	E	R-MR	R	AB
IH50RR	Bayer	2012	Hybrid	M	R-MR	R	A
Nuseed GT-41	Nuseed	2012	Hybrid	EM	R-MR	R	ABF
Nuseed GT-50	Nuseed	2012	Hybrid	M	R-MR		ABF
Pioneer [®] 43Y23 (RR)	Pioneer [®]	2012	Hybrid	E	R-MR	R	
Pioneer [®] 44Y24 (RR)	Pioneer [®]	2013	Hybrid	EM	R-MR	R	C
Pioneer [®] 45Y22 (RR)	Pioneer [®]	2011	Hybrid	M	MR	R	C

[^] **Type:** OP = Open pollinated

Maturity: Information provided by licensees. Maturity Key; V=very, E=early, M=mid, L=late (Maturity range: VE, E, EM, ME, M, ML, LM, L, VL).

Blackleg: Blackleg data is provided from the GRDC 2014 Blackleg Management Guide. Refer to this for further information.

Blackleg rating key; R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

Jockey[®] seed dressing contains fluquinconazole

Blackleg resistance group refers to the different combinations of blackleg resistance genes carried by each variety.

Table 6a Early maturity Roundup Ready® (RR) canola NVT trials (2009-2013); predicted yields (GY, as a percentage of Hyola® 404RR), oil % and number of trials (n).

	Agzone 1			Agzone 2			Agzone 3			Agzone 4			Agzone 5		
Hyola® 404RR (t/ha)	1.95	44.8	5	1.81	45.7	4	1.96		2	0.87	44.6	2	1.58	45.5	4
	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n
GT Cobra	74	43.2	5	94	43.9	4	87		2	82	41.5	2	90	44.2	4
GT Viper	55	43.5	5	86	43.4	3	79		2	72	41.5	2	85	44.5	4
Hyola® 400RR				94	48.1	2									
Hyola® 500RR				99	47.0	2									
Hyola® 505RR	86	44.1	4	93	45.4	4							88	46.1	3
IH30 RR	89	40.7	3	95	45.2	3				89	43.1	2	93	45.8	2
IH50 RR				96	44.0	3	86		2				89	42.3	4
Nuseed GT-41	84	40.9	3	100	45.1	3				95	41.8	2	100	48.0	2
Nuseed GT-50	87		2	99	46.6	2									
Pioneer® 43Y23 (RR)	104	42.4	5	98	43.3	4	97		2	97	41.9	2	96	43.9	4
Pioneer® 44Y24 (RR)	88	40.0	3	100	44.9	3				91	41.6	2	97	45.3	2

Table 6b Mid-maturity Roundup Ready® (RR) canola NVT trials (2009-2013); predicted yields (GY, as a percentage of Hyola® 404RR), oil % and number of trials (n).

	Agzone 2			Agzone 3			Agzone 6		
Hyola® 404RR (t/ha)	1.96	45.4	19	2.65	46.9	7	2.16	46.8	8
	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n
GT Cobra	91	43.4	16	89	45.5	6	91	45.2	7
GT Viper	85	43.7	15	79	45.0	4	76	45.8	5
Hyola® 400RR	97	46.3	4				103	46.8	2
Hyola® 500RR	101	45.0	3	104	47.2	2	107	47.0	2
Hyola® 505RR	90	45.9	13	98	47.9	7	99	46.4	8
IH30 RR	97	42.6	8						
IH50 RR	89	42.0	14	94	44.6	6	95	44.1	7
Nuseed GT-41	100	42.8	10	94	45.3	2	96	45.4	5
Nuseed GT-50	103	44.0	11	101	45.3	6	106	45.1	7
Pioneer® 43Y23 (RR)	103	41.6	10	106	44.2	4	105	44.6	5
Pioneer® 44Y24 (RR)	100	43.2	16	101	44.6	6	104	44.7	7
Pioneer® 45Y22 (RR)	91	42.8	21	99	45.8	8	104	44.7	9

Table 7a Early maturity Clearfield (CL) canola NVT trials (2009-2013); predicted yields (GY, as a percentage of Pioneer® 44Y84 (CL)), oil % and number of trials (n).

Pioneer® 44Y84 (CL) (t/ha)	Agzone 1			Agzone 2			Agzone 5		
	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n
Archer	99		2	97	45.7	2	92	44.5	2
Carbine	88	39.9	3	104	46.0	2	104	43.8	3
Hyola® 474CL	82	41.1	3	108	45.4	2	104	45.0	3
Hyola® 575CL	84	41.5	3	109	45.4	2			
Pioneer® 43C80 (CL)	66	39.7	2				96	42.8	3
Pioneer® 43Y85 (CL)	77	38.3	3	103	45.1	2	102	43.9	3
Pioneer® 44Y87 (CL)	86		2	106	44.4	2	104	43.2	2

Table 7b Mid-maturity Clearfield (CL) canola in NVT trials (2009-2013); predicted yields (GY, as a percentage of Pioneer® 44Y84 (CL)), oil % and number of trials (n).

Pioneer® 44Y84 (CL) (t/ha)	Agzone 2			Agzone 3			Agzone 6		
	GY%	oil%	n	GY%	oil%	n	GY%	oil%	n
Archer	95	41.7	3	105	45.1	9	108	44.1	4
Carbine	101	45.1	7	99	44.8	9	100	44.6	5
Hyola® 474CL	89	44.9	7	102	44.0	9	107	44.3	6
Hyola® 575CL	91	43.8	8	103	44.3	10	110	43.9	7
Hyola® 577CL	91	45.1	2	101	45.9	3	110	46.0	2
Pioneer® 43Y85 (CL)	89		3						
Pioneer® 44Y87 (CL)	101	40.9	2	102	40.6	3	104	42.2	2
Pioneer® 45Y86 (CL)	101	45.5	9	106	45.1	10	109	44.8	7
Pioneer® 45Y88 (CL)	100	42.6	4	106	43.0	6	113	43.5	4

Table 8. Clearfield (CL) canola; commercial and agronomic information

Variety	Licensee	Release year	Type [^]	Maturity	2014 Blackleg rating (bare seed)	2014 Blackleg rating + jockey [#]	Blackleg resistance group
Archer	Heritage Seeds	2012	Hybrid	M	MR-MS	R-MR	
Carbine	Heritage Seeds	2012	Hybrid	EM	MR-MS	R-MR	A
Hyola® 474CL	Pacific Seeds	2011	Hybrid	ME	R		BF
Hyola® 575CL	Pacific Seeds	2010	Hybrid	M	R		BF
Hyola® 577CL	Pacific Seeds	2013	Hybrid	M	R	R	
Pioneer® 43C80 (CL)	Pioneer®	2008	OP	E			
Pioneer® 43Y85 (CL)	Pioneer®	2012	Hybrid	E	MR	R-MR	A
Pioneer® 44Y84 (CL)	Pioneer®	2010	Hybrid	EM	MS	MR	A
Pioneer® 44Y87 (CL)	Pioneer®	2013	Hybrid	EM	MR	R-MR	A
Pioneer® 45Y86 (CL)	Pioneer®	2012	Hybrid	M	MR-MS	R-MR	AB
Pioneer® 45Y88 (CL)	Pioneer®	2013	Hybrid	M	R-MR	R-MR	A

[^] **Type:** OP = Open pollinated

Maturity: Information provided by licensees. Maturity Key; V=very, E=early, M=mid, L=late (Maturity range: VE, E, EM, ME, M, ML, LM, L, VL).

Blackleg data is provided from the GRDC 2014 Blackleg Management Guide. Refer to this for further information.

Blackleg rating key; R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

[#] Jockey® seed dressing contains fluquinconazole

Blackleg resistance group refers to the different combinations of blackleg resistance genes carried by each variety.