



Canola varieties & hybrids for irrigation areas in 2008

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in a nutshell

- Canola varieties for nearly every environment and end-use are available for growers in southern Australia
- This article classifies the different canola types and provides a description of each variety

In 2008, growers will be spoilt for choice with nearly 50 canola varieties on the market. New to the list are four conventional (non herbicide tolerant) types – two of these are specialty varieties and one is a hybrid. Two new Clearfield varieties have hit the market – one a hybrid and the other the first-ever Clearfield juncea canola variety. Another nine triazine tolerant types have come on board – two of which are specialty varieties; and we also have four new Roundup®Ready varieties for limited release.

Note: not all varieties will be marketed in all states. Refer to NSW DPI's Winter Crop Variety Sowing Guide 2008 or the 2008 Victorian Winter Crop Summary.

Also please note that National Variety Trials are undertaken in dryland situations only. Refer to Table 2 for the irrigated canola variety trial yields at Kerang. Since 2007, Clearfield, triazine tolerant (TT) and conventional (non herbicide tolerant) varieties have been evaluated in separate trials using a 'systems' approach and treated with different

herbicides, depending on tolerance. Prior to 2007, only TT varieties were evaluated in separate trials from the conventional and Clearfield varieties.

New & recent releases

The following list provides a little more detail on new and recently released canola varieties.

Please note that the blackleg resistance ratings (BLR) shown are for 2007, and ranked from 1.0 to 9.0. Varieties with ratings of:

- 3-4.5 are moderately susceptible
- 5-5.5 are moderately resistant
- 6.0-7.0 are resistant
- 7.5-9.0 are highly resistant.

Blackleg resistance ratings for 2008-09 will be available in June/July. Check the Australian Oilseed Federation's website <http://www.australianoilseeds.com/commodity_groups/canola_association_of_australia/pests_and_disease>.

Table 1. Canola varieties being marketed in 2008

Variety	Maturity	Year of release	Type	Marketer
Conventional				
AVGarnet	Mid	2008	Open pollinated	Nuseed
AVJade	Early-mid	2006	Open pollinated	Nuseed
AGVMuster	Early	2007	Open pollinated	CropCare
Pioneer®44C11	Early	2003	Open pollinated	Pioneer Hi-Bred
Pioneer®46C04	Mid	2002	Open pollinated	Pioneer Hi-Bred
Rivette	Early	2002	Open pollinated	Nuseed
AVSapphire	Mid	2002	Open pollinated	Nuseed
AGSpectrum	Early	2003	Open pollinated	Nuseed
Tarcoola	Early	2007	Open pollinated	Nuseed
Hyola®50	Early-mid	2007	Hybrid	Pacific Seeds
Hyola®76	Mid-late	2008	Hybrid	Pacific Seeds



Variety	Maturity	Year of release	Type	Marketer
Conventional specialty				
Monola™ 130CC	Mid	2006	Open pollinated	Nuseed Crop Network
06H932 (tested as)	Early-mid	2008	Hybrid	Cargill
06H939 (tested as)	Mid	2008	Hybrid	Cargill
Conventional juncea canola				
Dune	Early	2007	Open pollinated	Pacific Seeds
Herbicide tolerant				
Clearfield varieties				
Pioneer®44C73	Early	2001	Open pollinated	Pioneer Hi-Bred
Pioneer®44C79	Early	2008	Open pollinated	Pioneer Hi-Bred
Pioneer®45C75	Early-mid	2002	Open pollinated	Pioneer Hi-Bred
Pioneer®46C76	Mid-late	2003	Open pollinated	Pioneer Hi-Bred
Rocket CL	Mid-late	2004	Open pollinated	Pacific Seeds
Warrior CL	Early-mid	2006	Open pollinated	Nuseed
Pioneer®45Y77	Early-mid	2006	Hybrid	Pioneer Hi-Bred
Pioneer®46Y78	Mid	2007	Hybrid	Pioneer Hi-Bred
Clearfield juncea canola varieties				
Oasis CL		2008	Open pollinated	Pacific Seeds
Triazine tolerant varieties				
ATRBanjo	Early	2007	Open pollinated	Crop Care Seed Technologies
ATRBarra	Mid-late	2007	Open pollinated	Nuseed
ATRBeacon	Early-mid	2002	Open pollinated	Nuseed
ATRCobbler	Early-mid	2008	Open pollinated	Nuseed
ATRBoomer	Early	2005	Open pollinated	ABB Seeds (formerly Graintrust)
Bravo TT	Early-mid	2005	Open pollinated	Nuseed
Flinders TTC	Mid-late	2008	Open pollinated	Crop Care Seed Technologies
Hurricane TT	Early-mid	2008	Open pollinated	Pacific Seeds
ATRMarlín	Mid-late	2008	Open pollinated	Nuseed
Rottnest TTC	Early-mid	2008	Open pollinated	Crop Care Seed Technologies
ATRSigal	Early-mid	2007	Open pollinated	Nuseed
Storm TT	Mid	2008	Open pollinated	Pacific Seeds
ATRStubby	Early	2003	Open pollinated	Nuseed
ATRSummitt	Mid-late	2006	Open pollinated	Nuseed
CB™ Tanami	Early	2007	Open pollinated	ABB Seeds (formerly Graintrust)
Tawriffic TT	Mid	2008	Open pollinated	Nuseed
Thunder TT	Mid-late	2004	Open pollinated	Pacific Seeds
Tornado TT	Mid	2004	Open pollinated	Pacific Seeds
Triazine tolerant specialty varieties				
Monola™ 75TT	Mid-late	2008	Open pollinated	Nuseed Crop Network
Monola™ 65TT	Mid	2008	Open pollinated	Nuseed Crop Network
Roundup Ready® varieties				
GT61	Early-mid	2008	Open pollinated	Nuseed
Pioneer®46Y20	Mid	2008	Hybrid	Pioneer Hi-Bred
M8032 RR	Early-mid	2008	Hybrid	Pacific Seeds
M8265 RR	Mid	2008	Hybrid	Pacific Seeds



Non herbicide tolerant varieties

Conventional varieties

AVGARNET Mid maturing, very high yielding. Medium height. High oil content. BLR 7.5. Bred by Vic. DPI. Tested as RT125. Released 2007. Marketed by Nuseed.

AGMUSTER Early maturing, moderate yield in NSW, moderate to good oil. BLR 6.0. Tested as AGC 323. Released 2007. Bred by Nuseed. Marketed by Crop Care Seed Technologies.

TARCOOLA Early maturing, suited to 250–400 mm rainfall zone. BLR 6.0. High oil for an early maturing variety. Bred by NSW DPI and released by SARDI. Tested as BLN2026*SL902. Released 2007. Marketed by Nuseed.

HYOLA® 50 (Hybrid) Early-mid maturing hybrid with excellent blackleg resistance, BLR 9.0. Suits medium rainfall areas, manageable height, good standability, very high yield and excellent vigour. Bred by Canola Breeders International. Tested as CBI4403. Registered 2007 and marketed by Pacific Seeds.

HYOLA® 76 (Hybrid) Mid-late maturing hybrid. Pacific Seeds indicate very high oil content and exceptional early vigour. More suited to higher rainfall regions. High to very high yields. No official blackleg rating – Pacific Seeds anticipates very good blackleg resistance. Tested as CBI6654. Released in 2008. Bred by Canola Breeders International and Pacific Seeds. Marketed by Pacific Seeds.

Conventional specialty varieties

MONOLA™ 130 CC (formerly NMC 130) Mid maturing with very high oil and moderate to high content of oleic acid, low level of linolenic acid and high yield. Excellent blackleg resistance, BLR 8.5. Developed by Nutrihealth Pty Ltd (Nuseed), grown under contract to Nuseed Crop Network.

06H932 (breeder's code) (Hybrid) Early to mid maturing. Developed by Cargill and Vic. DPI. Good blackleg resistance and yield potential and has performed well in 2007 NVT trials. Planned release for 2008. 06H932 will be grown under contract production for Cargill.

06H939 (breeder's code) (Hybrid) Mid maturing specialty hybrid developed by Cargill and Vic. DPI. Good blackleg resistance and yield potential. Planned release for 2008. 06H939 will be grown under contract production for Cargill.

Conventional juncea canola varieties

DUNE The first of the new low-rainfall juncea canola varieties released in Australia. Suited to areas with rainfall below 350mm, Pacific Seeds indicates that Dune has high oil and protein content with yield comparable to other short season canola varieties. Yellow seed coat. Pod shatter tolerance may allow for direct heading. Unique blackleg resistance. Released in 2007. Grown under a closed loop marketing arrangement. Tested as JR055. Bred by Vic. DPI/Viterra and marketed by Pacific Seeds.

Herbicide tolerant

Clearfield varieties

PIONEER® 44C79 Early to early-mid maturing variety. Pioneer indicates good early vigour, high yield and high oil content. BLR 7.0 (provisional). Will replace 44C73 in

2009. Released in 2008; limited seed quantities in 2008. Tested as NS6082BI. Bred and marketed by Pioneer Hi-Bred Australia.

PIONEER® 46Y78 Mid season maturity hybrid suited to high rainfall areas. Excellent early vigour and large robust plant for higher hay and grain yields. Very high oil content with a blackleg rating of 8.0. Released 2007. Tested as 03N733I. Bred and marketed by Pioneer Hi-Bred Australia.

Clearfield juncea canola varieties

OASIS CL First herbicide tolerant low-rainfall juncea canola variety in Australia. Mid maturing, suited to areas with rainfall below 350mm. Pacific Seeds indicates this variety has good oil content. Unique resistance to blackleg. Excellent pod shatter tolerance may allow for direct heading. Possibly available in small quantities for commercial evaluation in 2008. Grown under a closed loop marketing arrangement. Tested as - J05Z-8920. Bred by DPI Vic./Viterra and marketed by Pacific Seeds.

Triazine tolerant varieties

ATR409 A true mid season variety suited to medium–high rainfall areas. Crop Care indicates the variety is high yielding in these environments, with excellent vigour and oil content. Medium to tall variety with a BLR of 8.0. Bred by Nuseed/Vic. DPI. Released 2008. Tested as ATR 409. Marketed by Crop Care Seed Technologies.

ATRBANJO Early maturing with BLR of 7.0. Moderate yields and very high oil content. Released 2007. Bred by Vic. DPI/Nuseed. Tested as AGT346, registered 2005 and marketed by Crop Care Seed Technologies.

ATRBARRA A mid to mid-late maturing variety with good blackleg resistance rating of 7.0, medium plant height, suited to the 400+ mm rainfall zone. High yielding, high oil and vigour. Bred by SARDI, Nuseed and Vic. DPI. Released 2007. Tested as TN4*207. Marketed by Nuseed.

ATRCOBBLER Early to early-mid maturing. Very high yielding across many sites. Moderate to high oil content. Medium–short height. Provisional BLR 7.0. Developed by Nugrain. Released 2008. Tested as NMT040. Marketed by Nuseed.

FLINDERS TTC Mid to late maturing, suited to high rainfall areas and potentially suited to irrigation. Moderate to high yielding with good vigour and high oil content. Medium to tall variety with good uniformity. BLR 7.0. Bred by Vic. DPI/Nuseed. Released in 2008. Tested as ATR-438 and marketed by Crop Care Seed Technologies.

HURRICANE TT Early-mid maturing variety. Pacific Seeds indicates good yield. Moderate oil. Ideally fits low to medium rainfall areas, exhibits good vigour. No official BLR, but Pacific Seeds anticipates BLR of 7.5. Planned released 2008. Tested as PacT2202. Bred and marketed by Pacific Seeds.

ATRMARLIN Mid to mid-late maturing. High yielding. Medium height. High to very high oil content. Very good blackleg resistance with BLR 8.0. Bred by Vic. DPI/Nuseed. Released 2008. Tested as ATR-423. Marketed by Nuseed.

ROTTNEST TTC Early to mid maturing. Crop Care indicates high yield, excellent vigour and moderate oil content. Medium height with good uniformity and shatter tolerance. BLR 7.5. Bred by Nuseed/Vic. DPI. Released in 2008. Marketed by Crop Care Seed Technologies.



STORM TT Mid maturing, high yielding. Pacific Seeds indicates good vigour. Moderate oil content. No official BLR. Pacific Seeds anticipates BLR of 7.5. Planned released 2008. Tested as PacT2203. Bred and marketed by Pacific Seeds.

CB™ TANAMI Early maturing, for low rainfall zones. High yielding. Early vigour. Moderate oil content. Provisional BLR of 6.0. Released in 2007. Bred by Canola Breeders WA. Tested as CBTT-61 and marketed by ABB Seeds (formerly Graintrust Pty Ltd).

TAWRIFFIC TT An early to mid maturity high yields and oil content. Provisional BLR 7.5. Medium height. Developed by the Canola Alliance (NSW DPI/Nugrain). Moderate seed quantities for 2008 expected. Tested as BLN3697TT. Marketed by NuSeed.

Triazine tolerant specialty varieties

MONOLA™ 75 TT Mid-late maturing. Moderate to high yield. Good oil content and oil composition suitable for main domestic frying markets in Australia. Medium height. Provisional BLR of 8.5. Tested as NMT 320. Release anticipated for 2008 and marketed by Nuseed Crop Network.

MONOLA™ 65 TT Mid maturity, similar to ATRBeacon. Good oil content and oleic and linolenic acid content suitable for main domestic frying markets in Australia. Provisional blackleg resistance rating of 8.5. Breeder indicates MONOLA™ 65 TT has excellent root depth and vegetative vigour, good but not excessive biomass and medium height. Tested as NL029. Release anticipated for 2008 and marketed by Nuseed Crop Network.

Roundup Ready® varieties

GT61 Early-mid maturing variety. Available for limited release in 2008.

Tested as GT61. Bred and marketed by Nuseed.

PIONEER® 46Y20 (Hybrid) Mid to mid-late maturing suited to reliable medium to high rainfall areas. Pioneer indicate field testing since 2003 shows very good blackleg resistance, very high yield potential and oil content. Limited release in 2008. Tested as Z03N741R. Bred and marketed by Pioneer Hi-Bred Australia.

M8032 RR (Hybrid) An early-mid maturing hybrid suited to low-medium rainfall areas. Tested in multi-location trials over successive seasons, Pacific Seeds indicates this new variety has good blackleg resistance, manageable height, moderate oil content and good standability with hybrid vigour and exceptional yield potential. Limited release in 2008. Tested as M8032 RR. Bred and marketed by Pacific Seeds.

M8265 RR (Hybrid) A mid maturing hybrid suited to medium to high rainfall areas. Limited field testing by Pacific Seeds indicates good blackleg resistance, standability, height and oil potential with exceptional yield potential. Limited release in 2008. Tested as M8265 RR. Bred and marketed by Pacific Seeds.

The following varieties are being considered outclassed with limited seed available in 2007:

- AVOpal, AGOutback, AGSpectrum, AGComet, AVRuby, AVSapphire, ATRStubby, ATRBeacon and ATRSignal

The following varieties will be withdrawn for 2008:

- Hyola 75, 45C05, 44Y06

Kerang trial breaks 5 t/ha barrier

The 5 t/ha canola yield barrier has been broken last year in irrigated variety trials at Kerang thanks to good management and temperatures promoting a long flowering period.

The trials, managed by the Victorian DPI and the Victorian Irrigated Cropping Council produced an impressive average yield of 4.0 t/ha, with one hybrid yielding an average above 5.0 t/ha (Table 2). The five-year average yield from the trial is 3.0 t/ha.

(It is important to note that some newer varieties that may be well suited to irrigation were not in the trial in 2007.)

Mild temperatures lengthen flowering & pod filling period

The excellent yields have been put down to good irrigation and weed management, and less days with very high temperatures during flowering, which allowed for a longer duration of flowering to increase yield potential.

In addition, the canola trial began flowering on the 24 August, a week earlier than usual. This was likely to be due to the warmer than average conditions earlier in the season.

Flowering also finished about four days later than usual, mostly by 26 September, and the dates for the end of flowering was scattered over a 12 day period for the different varieties.


Normally hot days in spring bring an abrupt end to the flowering period in irrigated canola in northern Victoria and parts the Riverina, and the different varieties in the trial usually finish flowering over two to three days.

Although the temperatures during flowering were actually slightly warmer than average, the hottest September day in Kerang in 2007 was only 26°C.

Research in glasshouse trials has shown that sudden high temperatures during flowering can cut yields by as much as half of temperature-sensitive varieties. The yields are less affected if the maximum temperatures increase slowly over a number of days, and some varieties are more tolerant of heat stress than others.

The long-term irrigated variety trial at Kerang is extremely important as there are no similar trials in southern Australia.

We can't just assume that varieties suitable to high rainfall areas are ideal for irrigation too, as the high rainfall areas generally experience milder temperatures during flowering and pod-filling.

The trial also highlighted that TT varieties are inherently lower yielding than other varieties (Table 2). In general, TT varieties are not recommended unless there is a weed problem that requires them. 



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Further information

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Figure 1. Felicity Pritchard at the Kerang Vic. DPI/VICC irrigated canola variety trial site, where a large range of canola varieties was trialled under irrigated conditions.

Table 2. Irrigated canola yield data (t/ha) from Kerang DPI/VICC trials. Note: not all new varieties/hybrids tested.

Variety	Maturity	Herbicide tolerance	Yield 2007 (t/ha)	5-yr adj. average (t/ha)	5-yr adj. average (% Pioneer® 46C76)
Hyola75* (hybrid)	Late	Conventional	4.85	3.70	124
AVSapphire**	Mid	Conventional	4.55	3.35	112
Pioneer®44C11	Early	Conventional	4.17	3.34	112
Pioneer®46C04	Mid	Conventional	4.67	3.33	112
AVGarnet	Mid	Conventional	4.18	3.30	111
WarriorCL	Early-mid	Clearfield	4.43	3.29	110
Skipton	Mid	Conventional	4.20	3.24	109
AGSpectrum**	Early	Conventional	4.44	3.21	107
AVJade	Early-mid	Conventional	4.29	3.19	107
Pioneer®45Y77 (hybrid)	Early-mid	Clearfield	4.10	3.11	104
AVRuby	Mid	Conventional	3.93	3.09	103
Rivette	Early	Conventional	4.08	3.05	102
MONOLA™ 75 TT	Mid-late	TT	4.04	3.00	101
Pioneer®46C76	Mid-late	Clearfield	3.80	2.99	100
Pioneer®45C75	Early-mid	Clearfield	4.00	2.93	98
ATRCobbler	Early-mid	TT	3.94	2.92	98
ATRSummitt	Mid-late	TT	4.01	2.91	98
ThunderTT	Mid-late	TT	3.95	2.89	97
ATRMARLIN	Mid-late	TT	3.98	2.88	96
RocketCL	Mid-late	Clearfield	3.99	2.81	94
ATRSIGNAL**	Early-mid	TT	3.73	2.79	93
Flinders TTC	Mid-late	TT	3.63	2.72	91
ATR409	Mid	TT	3.77	2.71	91
BravoTT	Mid	TT	3.83	2.70	90
TornadoTT	Mid	TT	3.67	2.62	88
ATRBeacon**	Early-mid	TT	3.73	2.62	88
Average			4.03	2.99	100

*Variety withdrawn in 2008 due to difficulties in seed production.
 **Considered outclassed, only limited seed available in 2008.