



Canola Varieties 2008

Felicity Pritchard, Oilseeds Industry Development Officer, Chris Bluett DPI Ballarat

May 2008

AG1349

ISSN 1329-8062

INTRODUCTION

As well as being profitable in its own right, canola can increase returns from cropping systems through the benefits it brings as a break crop.

New hybrid canola varieties are beginning to show their potential in Australia. In Canada hybrids now produce significantly higher yields than open-pollinated varieties. In the past in Australia inadequate blackleg resistance may have limited the impact of hybrid canola. However recent releases have higher yield potential which may be the result of hybrid vigour or improved blackleg resistance. Currently, several of the highest yielding conventional and Clearfield varieties are hybrids. The future will see more hybrid varieties on the market.

Growers now also have available new speciality canola varieties which produce oils that are more stable at higher cooking temperatures while maintaining very low levels of saturated fats and no trans fats. The opening of a major new global market is anticipated for speciality canola to meet the expected growth in demand for healthier oils.

Speciality varieties traditionally have a yield penalty but some newer Australian developed varieties yield comparably with the leading conventional or Clearfield varieties. Developed by Nuseed and the Victorian DPI/Cargill, new speciality varieties seek to incorporate higher yields, herbicide tolerance, high blackleg resistance and consistent quality performance.

The first *Brassica juncea* (Mustard) variety with canola oil and meal quality was released in 2007 and juncea canola will become more widely available to growers in 2008. Traditional canola grown currently is *Brassica napus*. Canola quality *Brassica juncea* varieties exhibit major changes to both meal and oil quality compared with traditional table mustard through the breeding efforts of the Victorian DPI and Viterra (Canada), partly funded by GRDC. Juncea canola has been developed for low rainfall areas with attributes including faster ground covering ability, better heat and drought tolerance and shatter tolerance. Thus it does not need windrowing, which is a major benefit. It can also be a spring sowing option in the high rainfall areas of the Victorian Western District. Future breeding priorities include development of herbicide tolerant varieties with high yield, improved quality, good blackleg resistance and good adaptation.

GM canola varieties will be commercially available to Victorian growers for the first time in 2008. Some of the potential benefits for growers and the industry include cleaner paddocks and lower weed control costs, more options for managing herbicide resistant weeds, safe chemicals and the potential for increased grain yields. Clearfield and TT canola still have a place in Australia to allow for rotation of herbicide groups.

VARIETY DESCRIPTIONS

Ⓛ denotes Plant Breeders Rights apply

Blackleg ratings 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 and 7.5-9.0 are highly resistant. Check for 2008 ratings after March 2008 under

http://www.australianoilseeds.com/commodity_groups/canola_association_of_australia/pests_and_disease

The website of the GRDC owned and funded National Variety Trial (NVT) program provides growers and agronomists with independent information, based on reliable field trials, on the yield and quality performance of canola (and other crop) varieties across Australia. The website provides a full range of reports on all varieties voluntarily submitted to NVT by plant breeders, and allows yield and economic comparisons between varieties to be made for most grain growing regions in Australia. www.nvtonline.com.au

CONVENTIONAL VARIETIES

Conventional – ^{AV}GARNET Ⓛ


Mid maturing, very high yielding variety. Medium height. Nuseed indicate very high oil content. Very good blackleg resistance, with a rating of 7.5.

Bred by VicDPI. Tested in NVT 2006-2007. Released 2007. Marketed by Nuseed.

Conventional - ^{AV}JADE Ⓛ

An early to mid maturing variety with a very good blackleg resistance rating of 7.5. Yield and oil content in Victoria generally higher than ^{AV}SapphireⓁ. Nuseed indicate excellent vigour and yield.

Bred by VicDPI. Tested in NVT 2006-2007. Registered 2006 and marketed by Nuseed.

Conventional - ^{AG}MUSTER 

An early maturing variety with good blackleg resistance and a rating of 6.0. It has good oil content and due to not being completely determinate in flowering can either finish early in dry conditions or capitalise on a soft finish.

Released 2007. Bred by Nuseed. Tested in NVT 2005-2007. Marketed by Crop Care Seed Technologies.


Conventional – PIONEER® 44C11 

An early maturing alternative to ^{AG}Outback in northern Victoria. High yield potential, suited to southern Mallee or late season plantings in medium to high rainfall districts. Blackleg resistance with a rating of 6.0. Bred by University of Georgia. Tested in NVT 2005-2006.

Registered 2003 and marketed by Pioneer Hi-Bred.

Conventional – PIONEER® 46C04 

A conventional mid season variety with good blackleg resistance and a blackleg resistance rating of 7.0. Excellent standability, high yield potential and a moderate oil content. Tested in NVT 2005-2006. Registered 2002. Bred and marketed by Pioneer Hi-Bred.

Conventional - TARCOOLA 

Early maturing variety, suited to 250-400 mm rainfall zone. Blackleg resistance rating of 6.0. Nuseed indicate very high oil for an early maturing variety.

Bred by NSW DPI and SARDI. Tested in NVT 2005-2007. Released 2007. Marketed by Nuseed.

Hybrid Conventional – HYOLA® 50

An early-mid maturing hybrid with exceptional yields and excellent blackleg resistance (blackleg resistance rating of 9.0). Suits medium rainfall areas, manageable height, good standability, good oil content and has excellent vigour. Bred by Canola Breeders International. Tested in NVT 2005-2007. Registered 2007 and marketed by Pacific Seeds.

Hybrid Conventional – HYOLA® 76

Mid to late maturing hybrid with exceptional early vigour. High oil content and very high yields in 2007 NVT trials. More suited to higher rainfall regions. No official blackleg rating yet; Pacific seeds anticipate very good blackleg resistance. First year tested in NVT 2007. Released in 2008. Bred by Canola Breeders International and Pacific Seeds. Marketed by Pacific Seeds.

CONVENTIONAL SPECIALTY VARIETIES**Speciality Oils - MONOLA™130 CC** 


Conventional mid maturing variety, similar maturity to ^{AV}Sapphire with very high oil and moderate to high content of oleic acid, low level of linolenic acid and high yield. Excellent blackleg resistance, with a rating of 8.5. First tested in NVT in 2005. Developed by Nutrihealth Pty Ltd, grown under contract to Nuseed Crop Network.

Hybrid Speciality Oils – tested as 06H939

Mid maturing specialty hybrid developed by Cargill and Vic. DPI. Good blackleg and yield potential. Planned release for 2008. First tested in NVT 2007.

06H939 will be grown under contract production for Cargill.

CONVENTIONAL JUNCEA CANOLA VARIETIES**Juncea canola – DUNE** 

The first of the new low-rainfall juncea canola varieties released in Australia. Suited to areas with rainfall below 350mm, Pacific Seeds indicate that Dune  has high oil and protein content with yield comparable to other short season canola varieties. Yellow seed coat. Excellent pod shatter resistance allows for direct heading. Unique blackleg resistance offers good protection against the disease. First tested in NVT 2007. Released in 2007. Bred by Vic DPI/Viterra and marketed by Pacific Seeds. End-point royalties apply.

HERBICIDE TOLERANT**Clearfield - PIONEER® 44C73** 

The only early Clearfield variety commercially available. Tested for tolerance to SU herbicide soil residues used in rotations. Moderate blackleg resistance rating, 5.0.

Registered 2001. Bred and marketed by Pioneer Hi-Bred Australia.

Clearfield - PIONEER® 44C79 

Early to early-mid maturing variety. Pioneer indicate exceptional early vigour and higher oil content than 44C73. Good blackleg resistance, with a provisional blackleg resistance rating of 7.0. Will replace 44C73 in 2009 and extend growing zone into northern Wimmera districts. Not tested in NVT trials. Released in 2008. Bred and marketed by Pioneer Hi-Bred Australia.

Clearfield - PIONEER® 45C75 

An early-mid IT variety suited in medium rainfall areas of northern Victoria. Moderate yields and high oil content. Consistent performance over a range of seasonal conditions with a good blackleg resistance rating of 6.0.

Registered 2002. Bred and marketed by Pioneer Hi-Bred Australia.

Clearfield - PIONEER® 46C76 

Mid to late maturity variety, moderate to high yielding, high oil content with good blackleg resistance of 6.5. Suited to the high rainfall districts in south west and north east Victoria. Tested in NVT 2005-2007.

Registered 2003. Bred and marketed by Pioneer Hi-Bred Australia.

Clearfield – ROCKET CL 

Mid-late maturity; this variety is suited to the higher rainfall zones in Victoria. Moderate yield and high oil content. Rocket CL has been tested against both conventional and *sylvestris*-attacking blackleg strains and shows resistance against both with a blackleg rating of 8.0.

Tested in NVT 2005-2006. Registered 2004. Bred and marketed by Pacific Seeds.

Hybrid Clearfield - PIONEER® 45Y77 

First imidazolinone tolerant hybrid in Australia. Early-mid maturity suited to medium to high rainfall areas. Moderate yields and high oil content. Large seed with high yield and oil content and a blackleg rating of 8.0. Released 2007.

Tested in NVT 2005-2007. Bred and marketed by Pioneer Hi-Bred Australia.

Hybrid Clearfield - PIONEER® 46Y78 

Mid season maturity hybrid suited to high rainfall areas. High yield and oil content. 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 in NVT 2005-2007. Bred and marketed by Pioneer Hi-Bred Australia.

CLEARFIELD JUNCEA CANOLA VARIETIES**Clearfield Juncea Canola - Oasis CL** 

First herbicide tolerant low-rainfall juncea canola variety in Australia. Suited to areas with rainfall below 350mm. Pacific Seeds indicate this mid maturing variety has good protein, oil content and unique disease resistance to blackleg. Excellent pod shatter resistance allows for direct heading. Seed quality as good as or slightly better than Dune. Possibly available in small quantities for commercial evaluation in 2008.

Bred by DPI Vic./Viterra (Canada) and marketed by Pacific Seeds. End-point royalties apply.


TRIAZINE TOLERANT VARIETIES**Triazine Tolerant – ATR409** 

A true mid season variety suited to medium to high rainfall areas. Crop Care indicate the variety is high yielding in these environments, with excellent vigour and oil content. Medium to tall variety with a blackleg rating of 8.0.

Bred by Nuseed/Vic. DPI. Released 2008. Marketed by Crop Care Seed Technologies.


Triazine Tolerant – ATRBANJO 

An early maturing TT variety with good blackleg resistance, rating of 7.0. Moderate yields and good oil content. Released 2007. Bred by Vic. DPI/Nuseed. Tested in NVT 2005-2006. Registered 2005 and marketed by Crop Care Seed Technologies.


Triazine Tolerant – 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 yield, oil content and vigour. Bred by SARDI, Nuseed and Vic. DPI in association with GRDC. Released 2007.


Tested in NVT 2006-2007. Marketed by Nuseed.

Triazine Tolerant – ATRCOBBLER 


Early to early-mid maturing. High to very high yielding across many sites, high oil content. Medium-short height. Provisional blackleg rating of 7.0. Developed by Nugrain. Tested in NVT 2006-2007. Released 2008. Marketed by Nuseed.

Triazine Tolerant – CB™BOOMER 

An early – mid maturing variety with a good blackleg resistance rating of 6, large seed size promotes early vigour. Moderate to high yields and high oil content. Bred by Canola Breeders WA. Tested in NVT 2005-2007, registered 2005 and marketed by ABB Seeds.

Triazine Tolerant – BRAVO TT 


Mid maturing TT variety, maturity similar to ATRBeacon with a blackleg rating of 6.5. High yields. Moderate oil content. Consistent performance in NVT trials. Bred by the Canola Alliance (Nugrain/NSW DPI). Tested in NVT 2005-2007, registered 2005 and marketed by Nuseed.

Triazine Tolerant – FLINDERS TTC 

Mid to late season variety suited to high rainfall areas and potentially suited to irrigation. Moderate to high yielding in longer season regions with good vigour and high oil content. Medium to tall variety with a blackleg rating of 7.0. Bred by Vic. DPI/Nuseed. Tested in NVT 2006-2007. Released in 2008. Marketed by Crop Care Seed Technologies.

Triazine Tolerant – HURRICANE TT 


Early-mid maturing variety, slightly earlier than Bravo TT. Pacific Seeds indicate good yield, oil and protein content. Ideally fits low to medium rainfall areas, exhibits good vigour. No official blackleg rating. Pacific Seeds anticipate blackleg rating 7.5. First tested in NVT 2007. Planned release for 2008. Bred and marketed by Pacific Seeds.

Triazine Tolerant – ATRMARLIN 


Mid to mid-late maturing. Medium height. High yield and high to very high oil content. Very good blackleg resistance with blackleg rating 8.0. Bred by Vic. DPI/Nuseed. Released 2008. Tested in NVT 2006-2007. Marketed by Nuseed.

Triazine Tolerant – ROTTNEST TTC 


Early to mid maturing. High yield and moderate oil content. Crop Care indicate excellent vigour. Medium height with good uniformity and shatter resistance and a good blackleg rating of 7.5. Bred by Nuseed/Vic. DPI. Released in 2008. Tested in NVT 2006-2007. Marketed by Crop Care Seed Technologies.

Triazine Tolerant – STORM TT 

Mid maturing variety, comparable to Tornado TT. 2007 NVT trials in northeast Victoria indicate high yields and moderate oil. Pacific Seeds indicate good vigour. No official blackleg rating. Pacific Seeds anticipate blackleg rating 7.5. Planned released 2008. First year in NVT 2007. Bred and marketed by Pacific Seeds.

Triazine Tolerant – ATRSUMMITT 

A mid to late maturing TT variety with a good blackleg rating of 6.5. Moderate to high oil content and yields. Bred by Vic. DPI/Nuseed. Tested in NVT 2005-2007. Registered 2006 and marketed by Nuseed.

Triazine Tolerant – CB™TANAMI 

Early season maturity variety adapted to low rainfall cropping zones of southern Australia. Early vigour and tolerance of low rainfall aids establishment in tough seasons. Good yields in low rainfall seasons and oil content similar to ATR-Stubby.

Provisional blackleg rating of 6.0. Released in 2007. Bred by Canola Breeders WA. Tested in NVT 2006-2007. Marketed by ABB Seeds.

Triazine Tolerant – TAWRIFFIC TT

A mid maturing variety, maturity similar to Bravo TT; very good blackleg resistance with a provisional rating of 7.5. High yield and moderate oil content. Medium in height. Developed by the Canola Alliance (NSW DPI/Nugrain) who indicate high yield and oil in 2007 NVT Trials. First year of testing in NVT 2007. Planned release for 2009 and marketed by Nuseed.

Triazine Tolerant – THUNDER TT

Thunder TT is a mid to late season TT variety suited to medium to high rainfall zones. Thunder has a Grace-type maturity with a very good blackleg resistance rating of 7.5. High yields and moderate to high oil content. Tested in NVT 2005-2007. Registered 2004. Bred and marketed by Pacific Seeds.

Triazine Tolerant – TORNADO TT

A mid season triazine tolerant variety, with similar maturity to ^{ATR}Beacon, which has performed well in the field. It has a good blackleg rating of 8.0. Moderate to high yields in Victoria and high oil content. Registered 2004, (previously called Tornado 555TT). Tested in NVT 2005-2007. Bred and marketed by Pacific Seeds.


TRIAZINE TOLERANT SPECIALTY VARIETIES

Triazine Tolerant Speciality oils – MONOLATM75 TT

Mid-late maturity, similar to ^{ATR}Summitt. Moderate yield and high 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 MONOLATM75 TT has excellent root depth and vegetative vigour, good but not excessive biomass and medium height.

First tested in NVT 2007. Release anticipated for 2008 and marketed by Nuseed Crop Network.

Triazine Tolerant Speciality oils – MONOLATM65 TT

Mid maturity, similar to ^{ATR}Beacon . 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 MONOLATM65 TT has excellent root depth and vegetative vigour, good but not excessive biomass and medium height. Release anticipated for 2008 and marketed by Nuseed Crop Network.

ROUNDUP READY® VARIETIES

Roundup Ready® - GT61.

Early-mid maturing variety. Available for limited release in 2008. Not tested in NVT prior to 2008.

Tested as GT61. Bred and marketed by Nuseed.

Hybrid Roundup Ready® - PIONEER® 46Y20

Mid to mid-late maturing hybrid suited to reliable medium to high rainfall areas. Pioneer indicate field testing since 2003 shows excellent hybrid vigour, good blackleg resistance, very high yield potential and oil content.

Limited release in 2008. Not tested in NVT prior to 2008. Tested as Z03N741R. Bred and marketed by Pioneer Hi-Bred Australia.

Hybrid Roundup Ready® - M8032 RR

An early-mid maturing variety suited to low-medium rainfall areas. Tested in multi-location trials over successive seasons, Pacific Seeds indicate this new variety has good blackleg resistance, manageable height, moderate oil content and good standability with exceptional hybrid vigour and yield potential. Limited release in 2008. Not tested in NVT prior to 2008. Tested as M8032 RR. Bred and marketed by Pacific Seeds.

Hybrid Roundup Ready® - M8265 RR

A mid maturing variety suited to medium to high rainfall areas. Limited field testing indicates good blackleg resistance, standability, height and oil potential. Pacific Seeds indicate exceptional hybrid vigour contributes to exceptional yield potential. Limited release in 2008. Not tested in NVT prior to 2008. Tested as M8265 RR. Bred and marketed by Pacific Seeds.

The advice provided in this publication is intended as a source of information only. Always read the label before using any of the products mentioned. The State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.