

## Canola varieties for the 2002 season

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### 5 new canola varieties will be marketed this year:

#### *Conventional Canola*

1 early-mid season (Rivette) and 2 mid-late season (Lantern, <sup>AG</sup>Castle)

#### *Triazine Tolerant (TT)*

1 early season (<sup>ATR</sup>Eyre), 1 early-mid season (<sup>ATR</sup>Beacon)

### Variety Selection

The main features to look at when selecting a canola variety are maturity, yield, oil content, blackleg resistance, agronomic characters such as early vigour and height, economics and the weed spectrum of the paddock where you are aiming to grow the variety. The maturity of varieties relative to each other can vary between locations, years and sowing times.

#### *Choosing a new variety:*

- Match rainfall and growing season length to maturity of variety required (ie early or mid)
- Determine weed spectrum to make a decision on conventional compared with TT or IT varieties
- Determine the level of blackleg resistance required - a high level of resistance is preferred in mid to long season areas
- Consider the economics of different packages

*Try new varieties in conjunction with proven varieties on smaller areas.*

### New Varieties for 2002

Ag-Seed Research have released one variety this year, a mid-late season conventional variety called <sup>AG</sup>Castle. Dovuro will market <sup>AG</sup>Castle.

The NRE/Ag-Seed Research triazine tolerant joint venture is releasing one new early season TT variety called <sup>ATR</sup>Eyre (Breeders code: TO003) and one early-mid season TT variety called <sup>ATR</sup>Beacon (Breeders code: TN 4). Dovuro have the seed production and marketing rights to both varieties.

NSWAg are releasing one early-mid season conventional variety called Rivette (Breeders code: BLN1999) and one mid-late season conventional variety called Lantern (Breeders code: BLN1981). SGB/NuGrain will be marketing both varieties.

In 2002, there are 31 varieties are being marketed in Victoria (Table 1). Many have similar attributes, particularly in the mid and mid-late season categories. Generally the higher oil, mid/mid-late season varieties tend to have slightly lower yields compared with Rainbow or Oscar.

**Table 1: Canola varieties being marketed in Victoria 2002**

Variety	Year of release	Type	Maturity	Blackleg rating*	Oil**	Protein
Surpass 400	1999	Conventional	Early	9	High	Very high
Mystic	1998	Conventional	Early-mid	6	Moderate	Moderate
<sup>AG</sup> Emblem	1999	Conventional	Early-mid	7	Moderate	Moderate
<sup>AG</sup> Outback	2001	Conventional	Early-mid	7	Moderate	Moderate
Rivette	2002	Conventional	Early-mid	6.5 P	High	High
Oscar	1992	Conventional	Mid	6	Moderate	Moderate
Rainbow	1993	Conventional	Mid	6	Moderate	Moderate
Pioneer® 46C03	1999	Conventional	Mid	6	Moderate	Moderate
Ripper	1999	Conventional	Mid	6.5	Very high	Very high
Surpass 600	1999	Conventional	Mid	6	Very high	High
Lantern	2002	Conventional	Mid	7.0 P	Very high	High
Dunkeld	1993	Conventional	Mid-late	6	High	High
Pioneer® 47C02	1998	Conventional	Mid-late	5.5	Moderate	Moderate
Charlton	1998	Conventional	Mid-late	6	Very high	High
Purler	1999	Conventional	Mid-late	6.5	Highest	Highest
<sup>AG</sup> Castle	2002	Conventional	Mid-late	8.0 P	Very high	High
Hyola 60	2001	Conventional Hybrid	Mid	9	High	Very high
Surpass 402CL	2001	Clearfield	Early	8.0 P	Moderate	Moderate
Pioneer® 44C73	2001	Clearfield	Early-mid	5.5 P	Moderate	Moderate
Pioneer® 45C75	2001	Clearfield	Early-mid	6.5 P	Moderate	High
Pioneer® 46C74	2001	Clearfield	Mid	6.0 P	Moderate	High
Surpass 603CL	2001	Clearfield	Mid	8.0 P	Very high	Very high
Surpass 300TT	2001	Triazine Tolerant	Very early	4.5	Moderate	Moderate
<sup>ATR</sup> Eyre	2002	Triazine Tolerant	Early	4.5 P	High	High
Karoo	1996	Triazine Tolerant	Early-mid	3.5	Moderate	Moderate
Surpass 501TT	2001	Triazine Tolerant	Early-mid		High	
<sup>ATR</sup> Hyden	2001	Triazine Tolerant	Early-mid	6	Moderate	Moderate
<sup>ATR</sup> Beacon	2002	Triazine Tolerant	Early-mid	6	High	High
<sup>TL-1</sup> Pinnacle	1997	Triazine Tolerant	Mid-late	5.5	Moderate	Moderate to high
Surpass 600TT	1999	Triazine Tolerant	Mid-late	5.5	Medium to high	High
<sup>ATR</sup> Grace	2001	Triazine Tolerant	Mid-late	6.5 P	High	High

\* 2001 blackleg survival ratings published by the Canola Association of Australia, from nurseries conducted around Australia by Departments of Agriculture and private breeding companies. Results statistically analysed. Varieties not tested over 6 sites and two years are marked P for provisional.

\*\* Oil content of varieties can vary considerably from year to year and from site to site within a year.

Oil content of a variety varies little relative to other varieties of similar maturity when grown under the same conditions.

## Comments on 2001 Releases and New Releases for 2002

Last season was the first year <sup>AG</sup>Outback was grown commercially. In 2000 and 2001, it outyielded Mystic by 4 per cent. Rivette, the new early-mid season variety from NSWAg, has yielded 2 per cent higher than Mystic with slightly higher oil content than Mystic (Table 2).

In the mid season category, the hybrid Hyola 60 again yielded 15 to 50 per cent more than Charlton (Table 2). In the 2000 trials Hyola 60 was mid-late maturing where in the 2001 trials it was early-mid maturing. Yields in 2001 were not as high for Hyola 60 as in 2000, possibly due to the lower blackleg pressure. Rainbow has again displayed high yields of between seven and 45 per cent more than Charlton. <sup>AG</sup>Castle, the new mid-late maturing variety from Ag-Seed Reseach, yielded between five and 35 per cent higher than Charlton. It has a provisional blackleg resistance rating of 8 and an oil content similar to Charlton. Lantern yields were similar to <sup>AG</sup>Castle in the Wimmera, slightly higher in the North East and lower in the Western Districts. Lantern has similar oil content to Charlton and a provisional blackleg rating of 7.

The imidazolinone tolerant, Clearfield varieties released in 2001 season had mixed performances. In the early season category, Surpass402CL lodged early, produced lower yields than Pioneer<sup>®</sup>44C73 and did have some problems with shot seed. Surpass 603CL, which is a mid season IT variety, had produced higher yields than Charlton in all regions except for the North East. Pioneer<sup>®</sup>46C74 yielded below Charlton in all districts, whereas Pioneer<sup>®</sup>45C75 was slightly higher yielding in the North East and Western Districts (Table 2).

<sup>ATR</sup>Eyre is a new early high oil content triazine tolerant variety for low rainfall environments. It yielded slightly lower than Karoo in the Mallee this year. In 2000, it yielded similar to Karoo and had 3-4 per cent higher oil content and has a provisional blackleg rating of 4.5. This variety should only be grown in low rainfall areas. <sup>ATR</sup>Beacon has again performed well across a range of environments and has wide adaptation. It has out yielded <sup>ATR</sup>Hyden and has the highest oil content of all the triazine tolerant varieties. In the higher rainfall zones, <sup>ATR</sup>Grace has produced yields of up to 13 per cent greater than Pinnacle (Table 2).

**Table 2: Canola Variety Yields by Region Three Years**

	Mallee			Wimmera			Central			North East			Western District		
Variety	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
EARLY	Percentage of Mystic														
AG EMBLEM	122	93	103	102	124	120	107	140	108	101	101	110			
AG OUTBACK		104	104		147	123		139	77		116	112			
MYSTIC	100	100	100	100	100	100	100	100	100	100	100	100			
PIONEER 44C73			97			127			107			111			
RAINBOW	97	93	96	109	130	116	110	125	73	105	111	110			
RIVETTE		102	102		148	122		105	93		107	117			
SURPASS400	76	88	84	110	137	143	93	141	102	111	101	105			
SURPASS402CL(IT)		89	92		71	111			110			99			
Sites*	4	5	4	2	1	2	1	2	1	3	3	3			
Mystic Yield (t/ha)	0.93	1.58	1.06	2.08	1.75	1.79	2.01	1.40	0.75	2.10	2.43	2.31			
MID	Percentage of Charlton														
AG CASTLE					109			135			105			121	
CHARLTON				100	100	100	100	100	100	100	100	100	100	100	100
DUNKELD				101	109	97		89	98	118	91	103	100	96	95
HYOLA 60					136	152		110	87	122		114	116		201
LANTERN					138	108		88	100	143		108	112		140
OSCAR				107	126	94		91	84	124	102	97	107	102	122
PIONEER 45C75(IT)					92			93				104			105
PIONEER46C03				118	112	95		79	79	109	97	102	104	100	110
PIONEER46C74(IT)					88			94				100			89
PIONEER47C02				105	85	81		108	86	114	105	106	96	99	112
RAINBOW				111	122	107		89	105	145	97	99	118	105	145
RIPPER				102	113	87		96	95	96	92	96	101	98	115
SURPASS603CL(IT)					137	131			73	108		89	96		202
Sites*				2	2	2		1	1	1	3	2	3	2	1
Charlton Yield (t/ha)				1.98	0.57	1.55		1.76	1.21	0.60	2.23	2.51	2.09	2.33	1.47
TT	Percentage of Pinnacle														
ATR-BEACON	110	133	107	137	120	126	98			117	108	112	101	127	107
ATR EYRE		117	98		84	86					103	106		101	94
ATR-GRACE	112	115	98		114	104	104			107	119	113	102	116	106
ATR-HYDEN		127	105		96	109					112	105		120	96
KAROO	85	120	107	74			70			81				71	
SURPASS300TT	88	93	75	73			70			73				64	
SURPASS600TT	101	105	95	100	78	91	95			99	105	103	91	89	86
TI1-PINNACLE	100	100	100	100	100	100	100			100	100	100	100	100	100
Sites)	2	3	3	2	2	2	1	0	0	2	2	2	3	2	3
TI1Pinnacle yield (t/ha)	1.25	0.92	1.17	1.68	1.33	1.80	1.98			2.43	2.30	2.14	2.35	1.82	2.89

\* Results from replicated S4 Victorian trials, run by DNRE crop evaluation units and the oilseeds-breeding program