

Agriculture Development Branch 2009 Report – Ontario Dry Bean Variety Trials for 2006-2008

Prepared by the Ontario Pulse Crop Committee

Infosheet

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This Infosheet contains the most recent variety information for dry edible beans. The information is prepared annually by the Ontario Pulse Crop Committee and edited by the Ontario Ministry of Agriculture, Food and Rural Affairs.

REFERENCES:

For more information contact:

Chris Gillard, Ridgetown Campus of University
of Guelph
519-674-1632
cgillard@ridgetownc.uoguelph.ca

Brian Hall, OMAFRA Stratford
519-271-0083
brian.hall@ontario.ca

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TABLE 1. 2006 – 2008 White Bean Variety Performance Trials

Full Season/Mid-Season Areas ¹			Short Season Areas ²		
Variety ³	Days to Maturity	Yield ⁴ (t/ha)	Variety ³	Days to Maturity	Yield ⁴ (t/ha)
AC Compass	88	3.68	AC Compass	92	3.15
T9903 ⁵	91	3.27	T9903	95	3.00
Lightning	93	3.80	Lightning	97	3.26
AC Mast	95	3.76	AC Cruiser	99	3.08
AC Cruiser	95	3.72	OAC Thunder	100	3.25
OAC Thunder	95	3.73	AC Mast	101	3.27
T 9905 ⁵	96	3.82	Reliant	102	3.25
OAC Gryphon	97	3.53	GTS 544	103	3.04
Vista	97	3.53	OAC Gryphon	104	3.20
Reliant	97	3.82	AC Trident	105	2.98
Nautica	98	3.58	Nautica	107	2.99
AC Trident	99	3.54	OAC Rex	107	3.02
GTS 544	100	3.29			
Viscount	100	3.55			
OAC Rex	101	3.72			

¹ Yield and days to maturity are based on the mean of 6 trials at 4 locations (Kippen, Harrow, Kemptville and Granton) over 3 years (2006–2008). For a graphic picture of the data see Figure 1. *Yield vs. Maturity for Full/Mid Season White Bean Varieties (Regression Chart)*

² Yield and days to maturity are based on the mean of 8 trials at 3 locations (Brussels, Elora and Kippen) over 3 years (2006–2008). For a graphic picture of the data see Figure 2. *Yield vs. Maturity for Short Season White Bean Varieties (Regression Chart)*

³ White bean varieties are arranged based on days to maturity. The maturity of most varieties change between areas due to environmental differences.

⁴ 1 t/ha = 893 lbs./ac.

⁵ Yield and Maturity for T9903 (Full/Mid-Season areas) is from 2007 and 2008 only.

FIGURE 1. Yield vs. Maturity for Short Season Areas

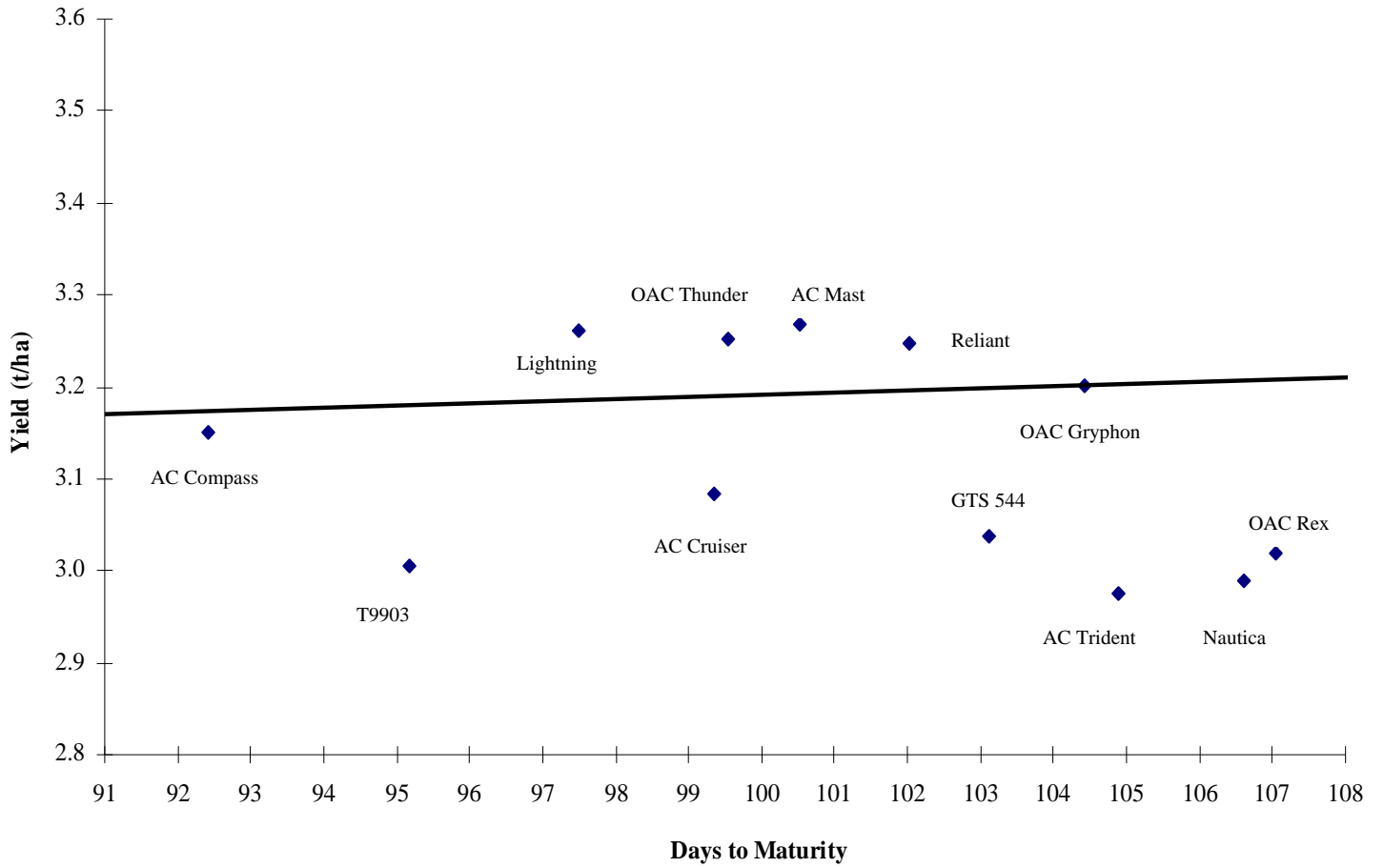


FIGURE 2. Yield vs. Maturity for Full/Mid Season Areas

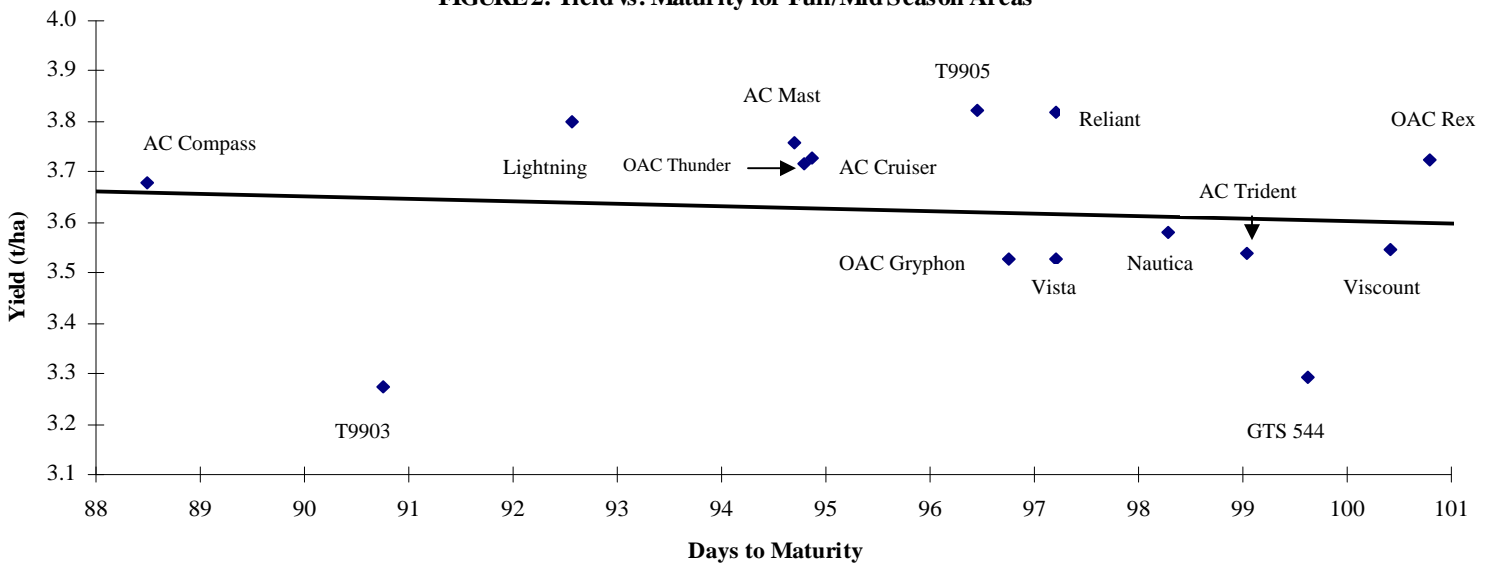


TABLE 2. White Bean Characteristics and Distributors

Variety	100 Seed Weight (g)	Disease Reaction ¹					White Mould ³	Suitability for Direct Harvest ⁴	Distributor
		Bean Common Mosaic Virus		Anthracnose ²					
		Race 1	Race 15	Race 17	Race 23				
AC Compass	21.6	R	R	S	S	3.1	2.7	Cooks	
T9903	22.1	R	R	R	R	3.6	3.2	Hyland	
Lightning	21.0	R	R	S	S	2.3	2.4	Hensall DC	
AC Mast	20.6	R	R	S	S	2.7	3.3	Advantage	
AC Cruiser	20.3	R	R	S	S	3.1	3.0	Hensall District Co-op	
OAC Thunder	21.8	R	R	S	S	2.9	3.3	SeCan	
T9905	21.5	R	R	R	R	3.0	2.9	Hyland	
OAC Gryphon	19.4	R	R	R	R	2.9	3.9	Public Variety	
Vista	19.0	R	R	R	R	2.9	3.0	Cooks, Hyland, Hensall DC	
Reliant	19.4	R	R	NA	NA	3.1	3.2	Cooks, Hyland, Hensall DC	
Nautica	18.5	R	R	S	S	2.5	2.3	Secan .	
AC Trident	19.9	R	R	S	S	2.7	3.0	Hensall District Co-op	
GTS 544	20.7	R	R	NA	R	2.8	3.3	Cooks, Hyland, Hensall DC	
Viscount	18.8	R	R	NA	NA	3.2	3.0	Cooks, Hyland, Hensall DC	
OAC Rex*	20.8	R	R	S	S	2.6	3.0	Hensall District Co-op	

¹ R = Resistant, S = Susceptible, NA = Not Available

² Anthracnose ratings do not include race 73, found in Ontario in 2004. No varieties currently have resistance to race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

³ White mould ratings are based on a scale of 1-5, where 1 = very tolerant or low levels of natural infestation, 5 = very susceptible. White mould trials were located at 7 sites total - Granton, St. Thomas and Winchester in 2004, Elora, St. Thomas and Winchester in 2006, and Kemptville in 2008. NA = Not Available (due to lack of data).

⁴ A variety's suitability of direct harvest is based on a scale of 1-5, where 1 = upright plant type, standing erect with good bottom pod height and 5 = more prostrate plant type or plants that are not erect, with poor bottom pod height.

* Resistance gene for common bacterial blight (*Xanthomonas campestris* pv. *Phaseoli*). Very little disease will develop on this variety.

Elora station report : 2006 – 2008 White Bean Variety Trial				
	Yield Index (%)			
	Days to Maturity¹	1 Year	2 Year	3 Year
		2008	2007-08	2006-08
AC Compass	92	95	89	96
T9903	95	117	112	102
Lightning	97	104	108	109
AC Cruiser	99	86	84	89
OAC Thunder	100	105	102	100
AC Mast	101	86	102	102
Reliant	102	97	105	
Vista	102	114	111	
GTS 544	103	94	98	
T9905	103	103	100	
OAC Gryphon	104	116	117	103
AC Trident	105	102	98	102
Nautica	107	84	83	95
Viscount	107	114	111	
OAC Rex	107	85	87	92
Average Yield (t/Ha)		2253	2315	2574
(lb/ac)		2012	2067	2299

¹ Days to maturity are based on the mean of 8 trials at 3 locations (Brussels, Elora and Kippen) over 3 years (2006–2008).

Brussels station report: 2006- 2008 White Bean Variety Trial			
		Yield Index %	
		1 Year	2 Year
	Days to Maturity¹	2008	2007-08
AC Compass	92	111	115
T9903	95	102	98
Lightning	97	99	100
AC Cruiser	99	104	101
OAC Thunder	100	105	106
AC Mast	101	110	108
Reliant	102	98	98
Vista	102	98	
GTS 544	103	94	96
T9905	103	97	
OAC Gryphon	104	98	98
AC Trident	105	95	90
Nautica	107	91	90
OAC Rex	107	101	99
Viscount	107	97	
Average Yield (t/ha)		4481	3217
(lb/acre)		4002	2873

¹ Days to maturity are based on the mean of 8 trials at 3 locations (Brussels, Elora and Kippen) over 3 years (2006–2008).

Kippen station report: 2006 - 2008 White Bean Variety Trial				
		Yield Index %		
		1 Year	2 Year	3 Year
	Days to Maturity¹	2008	2008-07	2006-08
AC Compass	88	103	94	96
T9903	91	99	91	91
Lightning	93	105	105	104
AC Cruiser	95	108	109	104
AC Mast	95	106	110	105
OAC Thunder	95	102	107	106
T9905	96	103	100	98
OAC Gryphon	97	92	101	104
Reliant	97	107	106	107
Vista	97	93	97	98
Nautica	98	94	99	99
AC Trident	99	100	93	93
GTS 544	100	90	98	98
Viscount	100	88	92	97
OAC Rex	101	110	99	99
Average (t/ha)		3362	3365	3606
(lb/ac)		3002	3005	3220

1 Days to maturity are based on the mean of 6 trials at 4 locations (Kippen, Harrow, Kemptville and Granton) over 3 years (2006–2008)

Harrow, Kemptville, Granton station report: 2006 - 2008 White Bean Variety Trial				
		Yield Index %		
	Trial Year(s)	2008	2006	2006
	Days to Maturity¹	Harrow	Kemptville	Granton
AC Compass	88	115	107	97
T9903	91	95		
Lightning	93	101	112	102
AC Cruiser	95	105	103	94
AC Mast	95	116	93	99
OAC Thunder	95	111	98	90
T9905	96	106	109	121
OAC Gryphon	97	89	89	91
Reliant	97	92	104	113
Vista	97	91	108	88
Nautica	98	98	98	97
AC Trident	99	101	93	110
Gts 544	100	81	77	93
Viscount	100	91	100	104
OAC Rex	101	109	110	100
Average (t/ha)		3386	3807	3788
(lb/ac)		3024	3400	3383

¹ Days to maturity are based on the mean of 6 trials at 4 locations (Kippen, Harrow,, Kemptville and Granton) over 3 years (2006 - 2008)

TABLE 3. Coloured Bean Variety Performance

Variety	Market Class	Days to Maturity ¹	Yield ^{1,3} (t/ha)	100 Seed ¹ Weight (g)	Disease Reaction ²				Distributor
					Bean Common Mosaic Virus		Anthracnose ⁴		
					Race 1	Race 15	Race 17	Race 23	
SVM Taylor	cranberry	89	2.60	56.4	S	S	S	S	ADM A.S.I.
Etna	cranberry	92	3.11	60	R	R	S	S	Cooks
AC Red Rider ⁵	cranberry	98	2.98	61	S	R	R	R	SeCan
Hooter	cranberry	101	3.20	65	R	R	S	S	Cooks
Red Hawk	dark red kidney	95	2.88	54	R	R	R	R	Hyland Seeds
OAC Redstar	dark red kidney	98	2.91	57	R	R	R	S	SeCan
Montcalm	dark red kidney	100	2.62	55	R	R	R	S	Public Variety
AC Calmont	dark red kidney	101	2.83	56	R	R	R	R	Hensall District Co-op
Majesty	dark red kidney	98	2.87	68	R	R	R	S	Hensall District Co-op
OAC Lyrik	light red Kidney	90	2.73	65	R	R	R	S	Public
AC Elk	light red kidney	91	2.83	60	R	S	R	S	Public Variety
Pink Panther ⁵	light red kidney	92	2.90	65	R	R	R	S	Cooks
Red Kanner	light red kidney	105	3.03	53	R	R	S	S	Hyland Seeds

¹ Yields, maturities and seed weights are based on the means of 10 trials at 5 locations (Kippen, Elora, Monkton, St. Thomas and Thorndale) over 3 years (2006-2008).

² Disease Ratings (R = Resistant, S - Susceptible, NA = Not Available)

³ 1 metric tonne per hectare (t/ha) = 893 lbs./ac.

⁴ Anthracnose race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

⁵ **Pink Panther and Red Rider** maturity, yield and seed weight are calculated using 2007 and 2008 data.

Kippen station report: 2006 – 2008 Major Coloured Bean Variety Trial							
Variety	Type	Days to Maturity¹	Yield kg/ha				
			Kippen			3 Year Average	
			2008	2007	2006	Kippen	All Locations¹
Red Hawk	DRK	95	2382	2641	2711	2578	2882
Majesty	DRK	98	2483	3106	2817	2802	2870
OAC Redstar	DRK	98	2500	2556	2924	2660	2908
Montcalm	DRK	100	2392	2431	2705	2509	2618
AC Calmont	DRK	101	2755	2664	2914	2778	2823
AVERAGE (kg/ha)	--		2502	2680	2814	2665	2820
OAC Lyrik	LRK	90	2217	2129	2310	2219	2727
AC Elk	LRK	91	2269	2431	2451	2384	2839
Pink Panther	LRK	92	2671	2619			2903
Red Kanner	LRK	105	2902	3052	3419	3124	3027
AVERAGE (kg/ha)	--		2515	2558	2727	2600	2874
Etna	Cran	92	2628	2648	2732	2669	3112
Red Rider	Cran	98	3023	3023			2727
Hooter	Cran	101	3227	3053	3114	3131	3028
AVERAGE (kg/ha)	--		2959	2908	2923	2930	2822

¹ Yields, maturities are based on the means of 10 trials at 5 locations (Kippen, Elora, Monkton, St. Thomas and Thorndale) over 3 years (2006-2008).

Thorndale station report: 2006- 2008 Major Coloured Bean Variety Trial							
Variety	Type	Days to Maturity¹	Yield kg/ha				
			Thorndale			3 Year Average	
			2008	2007	2006	Thorndale	All Locations¹
Red Hawk	DRK	95	2749	2455	3398	2867	2882
Majesty	DRK	98	3456	2672	3245	3124	2870
OAC Redstar	DRK	98	2925	2691	3277	2964	2908
Montcalm	DRK	100	2597	2040	3082	2573	2618
AC Calmont	DRK	101	2450	2184	3383	2672	2823
AVERAGE (kg/ha)	--		2835	2408	3277	2840	2820
OAC Lyrik	LRK	90	2659	2668	2808	2712	2727
AC Elk	LRK	91	2782	2791	2978	2850	2839
Pink Panther	LRK	92	3352	2808			2903
Red Kanner	LRK	105	2802	2291	3676	2923	3027
AVERAGE (kg/ha)	--		2899	2640	3154	2897	2874
Etna	Cran	92	2628	2648	2732	2669	3112
Red Rider	Cran	98	3023	3023			2727
Hooter	Cran	101	3227	3053	3114	3131	3028
AVERAGE (kg/ha)	--		2959	2908	2923	2930	2822

2006 - 2008 St Thomas Major Coloured Bean Variety Trial						
Variety	Type	Days to Maturity¹	Yield kg/ha			
			St Thomas		2 Year Average	3 Year Average
			2008	2006	St Thomas	All Locations¹
Red Hawk	DRK	95	3417	3221	3319	2882
Majesty	DRK	98	2633	2824	2729	2870
OAC Redstar	DRK	98	3550	2624	3087	2908
Montcalm	DRK	100	2566	2765	2666	2618
AC Calmont	DRK	101	3143	2711	2927	2823
AVERAGE (kg/ha)	--		3062	2829	2945	2820
OAC Lyrik	LRK	90	3908	3063	3486	2727
AC Elk	LRK	91	3940	2984	3462	2839
Pink Panther	LRK	92	3987			2903
Red Kanner	LRK	105	3400	2514	2957	3027
AVERAGE (kg/ha)	--		3809	2854	3331	2874
Etna	Cran	92	3999	3654	3827	3112
Red Rider	Cran	98	3494			2727
Hooter	Cran	101	3039	2408	2724	3028
AVERAGE (kg/ha)	--		3511	3031	3271	2822

¹ Yields, maturities are based on the means of 10 trials at 5 locations (Kippen, Elora, Monkton, St. Thomas and Thorndale) over 3 years (2006-2008).

TABLE 4. Addresses of Distributors for Edible Bean Varieties

Advantage Seed Growers and Processors Inc. Box 351 Lucknow, Ontario N0G 2H0 1-800-651-7333	Cook's Division of Parrish and Heimbecker P.O. Box 10, Centralia ON N0M 1K0 (519) 228-7000	Hensall District Co-op P.O. Box 219, Hensall, ON N0M 1X0 (519) 262-3002
ADM Agri Sales Inc. (ADM A.S.I.) 2385 Wright Ave. Twin Falls, Idaho (208) 734-2550	Gen-Tec Seeds Ltd. P. O. Box 98, Woodslee ON N0R 1V0 (519) 975-2557	Hyland Seeds Div. of Thompsons Ltd. P. O. Box 250, Blenheim ON N0P 1A0 (519) 676-8146
	SeCan Association 501-300 March Rd Kanata ON K2E 2E2 (613) 592-8600	Syngenta Seeds Inc. P.O. Box 4188 Boise Idaho 83704-4188 (208) 322-7272

Agricultural Information Contact Centre:

1-877-424-1300

E-mail: ag.info.omafra@ontario.ca

Northern Ontario Regional Office:

1-800-461-6132

www.ontario.ca/omafra