

# Agriculture Development Branch 2014 Report – Ontario Dry Bean Variety Trials for 2009 - 2013

Prepared by the Ontario Pulse Crop Committee

## Infosheet

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This Infosheet contains the most recent variety information for dry edible beans planted and harvested in 2013. The information is prepared annually by the Ontario Pulse Crop Committee and edited by the Ontario Ministry of Agriculture and Food and the Ministry of Rural Affairs.

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**Table 1a – 2009-2013 White Bean Variety Performance Trial Long Season Area**

Variety	Days to Maturity <sup>2</sup>	Yield (t/ha) <sup>1</sup>												
		Long Season All Locations <sup>4</sup>				St Thomas <sup>4</sup>				Kippen <sup>4</sup>				
		5 Year	4 Year	3 Year	2 Year	4 Year	3 Year	2 Year	2013	5 Year	4 Year	3 Year	2 Year	2013
T9903	93	3.15	3.13	3.08	3.22	3.54	3.43	3.32	3.39	3.13	3.08	2.99	3.12	3.81
AC Compass	93	3.16	3.14	3.13	3.25	3.51	3.42	3.32	3.53	3.29	3.27	3.17	3.18	3.76
Bolt	93	--	3.08	3.11	3.07	3.45	3.39	3.17	3.08	--	3.12	2.99	2.97	3.69
Indi	94 <sup>5</sup>								3.23					3.79
Lightning	94	3.20	3.19	3.21	3.22	3.45	3.47	3.36	3.36	3.34	3.36	3.20	3.08	3.37
Vigilant	95	--	--	3.26	3.44	--	3.59	3.63	3.65	--	--	3.23	3.25	3.76
OAC Thunder	96	3.31	3.29	3.29	3.51	3.61	3.50	3.52	3.34	3.51	3.50	3.47	3.49	3.96
HMS Medalist	97	--	--	3.68	3.90	--	3.96	4.01	3.72	--	--	3.68	3.78	4.12
T9905	97	3.47	3.47	3.41	3.62	3.69	3.67	3.77	3.82	3.53	3.54	3.47	3.48	3.92
Nautica	98	3.34	3.38	3.36	3.51	3.70	3.64	3.67	3.79	3.25	3.34	3.31	3.35	3.74
AC Mast	98	3.22	3.22	3.16	3.45	3.61	3.52	3.56	3.52	3.30	3.32	3.35	3.34	3.81
Reliant	98	3.19	3.18	3.08	3.53	3.37	3.21	3.43	3.55	3.46	3.49	3.53	3.63	4.09
Vista	98	3.32	3.34	3.31	3.41	3.53	3.41	3.37	3.51	3.35	3.42	3.44	3.45	3.77
Lighthouse	98	3.51	3.53	3.37	3.29	3.66	3.53	3.35	3.38	3.37	3.39	3.25	3.24	3.75
Mist	98	--	3.62	3.49	3.44	3.92	3.86	3.71	3.74	--	3.46	3.26	3.17	3.69
GTS 544	98	3.13	3.12	2.98	3.48	3.40	3.27	3.58	3.49	3.29	3.32	3.30	3.39	3.77
0319-Merlin	100	--	--	3.42	3.67	--	3.76	3.91	3.56	--	--	3.39	3.43	3.59
Apex	100	3.59	3.63	3.52	3.75	3.78	3.73	3.86	3.95	3.52	3.64	3.59	3.63	4.26
Viscount	100	3.21	3.23	3.16	3.29	3.36	3.26	3.28	3.39	3.28	3.34	3.30	3.30	3.45
Rexeter	101	3.65	3.63	3.47	3.70	3.74	3.57	3.87	3.82	3.64	3.57	3.51	3.52	3.83
Average Yield (t/ha) <sup>1</sup>		3.32	3.33	3.29	3.46	3.58	3.54	3.56	3.56	3.38	3.38	3.34	3.36	3.80
LSD (0.05) <sup>3</sup>		0.11	0.11	0.13	0.15	0.20	0.22	0.22	0.30	0.16	0.18	0.21	0.22	0.35

<sup>1</sup> To convert t/ha to lbs/acre multiply by 893.

<sup>2</sup> Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> LSD (0.05) – the LSD is a measure of variability within the trial. There is a ninety five percent probability that yields that differ by an amount greater than the LSD are different. Yields that differ by an amount less or equal to the LSD should be considered the same.

<sup>4</sup> Multiyear testing averages are based on testing locations in the table below.

<sup>5</sup> Maturity of Indi is based on 2013 average of Kippen, St. Thomas

Long Season Testing Locations					
St Thomas	2013	2012	2011	2010	--
Kippen	2013	2012	2011	2010	2009
Woodstock	--	--	2011	2010	--
Granton	--	--	2011	2010	--

**Table 1b – 2009-2013 White Bean Variety Performance Trial Short Season Area**

Variety	Days to Maturity <sup>2</sup>	Yield (t/ha) <sup>1</sup>								
		Short Season All Locations <sup>4</sup>				Blyth <sup>4</sup>				
		5 Year	4 year	3 Year	2 Year	5 Year	4 Year	3 Year	2 Year	2013
T9903	100	3.00	3.11	3.08	3.45	3.35	3.59	3.62	3.52	3.30
Bolt	102	--	3.08	2.98	3.28	--	3.11	2.95	3.01	2.98
AC Compass	102	2.98	2.99	2.90	3.19	3.29	3.25	3.12	3.14	3.19
Indi	102 <sup>5</sup>									3.71
Vigilant	103	--	--	3.25	3.53	--	--	3.78	3.72	3.47
Lightning	104	3.20	3.26	3.16	3.39	3.44	3.51	3.38	3.49	3.59
OAC Thunder	104	3.25	3.26	3.20	3.47	3.58	3.59	3.50	3.41	3.31
HMS Medalist	106	--	--	3.55	3.90	--	--	4.10	4.19	3.97
AC Mast	106	3.08	3.13	3.08	3.46	3.42	3.51	3.56	3.54	3.58
Nautica	107	3.17	3.25	3.12	3.35	3.48	3.56	3.52	3.56	3.31
T9905	108	3.44	3.55	3.40	3.73	3.84	3.99	3.94	3.92	3.77
GTS 544	108	3.10	3.21	3.07	3.39	3.55	3.72	3.85	3.81	3.56
Vista	108	3.25	3.37	3.29	3.58	3.71	3.86	3.88	3.98	3.86
Mist	108	--	3.58	3.40	3.62	--	3.65	3.56	3.47	3.20
Lighthouse	108	3.49	3.55	3.41	3.72	3.60	3.66	3.63	3.61	3.39
0319-Merlin	109	--	--	3.39	3.79	--	--	3.92	4.00	3.77
Reliant	109	3.26	3.35	3.27	3.65	3.72	3.88	3.91	3.94	3.70
Apex	110	3.44	3.54	3.36	3.64	3.67	3.70	3.67	3.65	3.75
Viscount	111	3.22	3.28	3.20	3.41	3.69	3.76	3.82	3.73	3.62
Rexeter	111	3.50	3.53	3.35	3.60	3.83	3.91	3.84	3.83	3.81
Average Yield (t/ha) <sup>1</sup>		3.24	3.32	3.23	3.53	3.58	3.64	3.66	3.66	3.53
LSD (0.05) <sup>3</sup>		0.08	0.09	0.10	0.12	0.13	0.15	0.17	0.20	0.19

**Table 1b – 2009-2013 White Bean Variety Performance Trial Short Season Area (continued)**

Variety	Days to Maturity <sup>2</sup>	Yield (t/ha) <sup>1</sup>									
		Kippen <sup>4</sup>					Elora <sup>4</sup>				
		5 Year	4 Year	3 Year	2 Year	2013	5 Year	4 Year	3 Year	2 Year	2013
T9903	100	3.13	3.08	2.99	3.12	3.81	2.60	2.84	2.84	3.70	4.29
Bolt	102	--	3.12	2.99	2.97	3.69	--	3.06	2.97	3.86	4.22
AC Compass	102	3.29	3.27	3.17	3.18	3.76	2.36	2.49	2.51	3.26	3.71
Indi	102 <sup>5</sup>					3.79					4.35
Vigilant	103	--	--	3.23	3.25	3.76	--	--	2.80	3.63	4.32
Lightning	104	3.34	3.36	3.20	3.08	3.37	2.76	2.85	2.83	3.60	4.10
OAC Thunder	104	3.51	3.50	3.47	3.49	3.96	2.70	2.79	2.73	3.52	3.89
HMS Medalist	106	--	--	3.68	3.78	4.12	--	--	2.94	3.72	4.26
AC Mast	106	3.30	3.32	3.35	3.34	3.81	2.52	2.60	2.63	3.51	3.98
Nautica	107	3.25	3.34	3.31	3.35	3.74	2.63	2.69	2.47	3.14	4.40
T9905	108	3.53	3.54	3.47	3.48	3.92	2.93	3.16	3.01	3.79	4.50
GTS 544	108	3.29	3.32	3.30	3.39	3.77	2.51	2.74	2.55	2.98	3.86
Vista	108	3.35	3.42	3.44	3.45	3.77	2.64	2.84	2.68	3.31	3.70
Mist	108	--	3.46	3.26	3.17	3.69	--	3.30	3.30	4.23	4.99
Lighthouse	108	3.37	3.39	3.25	3.24	3.75	3.22	3.30	3.27	4.32	5.13
0319-Merlin	109	--	--	3.39	3.43	3.59	--	--	3.07	3.93	4.59
Reliant	109	3.46	3.49	3.53	3.63	4.09	2.69	2.82	2.72	3.37	3.93
Apex	110	3.52	3.64	3.59	3.63	4.26	2.75	2.86	2.83	3.63	4.66
Viscount	111	3.28	3.34	3.30	3.30	3.45	2.69	2.77	2.68	3.20	3.97
Rexeter	111	3.64	3.57	3.51	3.52	3.83	2.70	2.71	2.63	3.46	4.35
Average Yield (t/ha) <sup>1</sup>		3.38	3.38	3.34	3.36	3.80	2.69	2.86	2.81	3.59	4.25
LSD (0.05) <sup>3</sup>		0.16	0.18	0.21	0.22	0.35	0.18	0.21	0.21	0.28	0.43

<sup>1</sup> To convert t/ha to lbs/acre multiply by 893.

<sup>2</sup> Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> LSD (0.05) – the LSD is a measure of variability within the trial. There is a ninety five percent probability that yields that differ by an amount greater than the LSD are different. Yields that differ by an amount less or equal to the LSD should be considered the same.

<sup>4</sup> Multiyear testing averages are based on testing locations in the table below

<sup>5</sup> Maturity for Indi variety is based on 2013 data.

Short Season Testing Locations					
Blyth	2013	2012	2011	2010	2009
Kippen	2013	2012	2011	2010	2009
Elora	2013	2012	2011	2010	2009
Woodstock	--	--	2011	2010	--

**Table 2 – 2011-2013 White Bean Characteristics and Distributors**

Variety	100 Seed Weight <sup>3</sup> (g)	Disease Reaction <sup>1</sup>					Common Blight	Suitability for Direct Harvest <sup>4</sup>	Distributor
		Bean Common Mosaic Virus		Anthracnose <sup>2</sup>					
		Race		Race					
		1	15	17	23	73			
T9903	24.2	R	R	R	R	R	S	2.4	Hyland/Dow
Bolt	24.4	R	R	NA	S	R	S	1.5	Hensall DC
AC Compass	21.9	R	R	S	S	S	S	3.3	Cook's
Vigilant	21.6	R	S	S	S	S		1.4	ADM Seedwest
Lightning	22.4	R	R	S	S	S	S	1.8	Hensall DC
OAC Thunder	23.4	R	R	S	S	S	S	2.3	SeCan
Indi	21.1	R	S	S	S	S		1.3	ADM Seedwest
AC Cruiser	22.5	R	R	S	S	S	S	2.9	Hensall DC
HMS Medalist	20.7	R	S	S	S	S		1.9	ADM Seedwest
AC Mast	23.0	R	R	S	S	S	S	2.7	Advantage
OAC Dublin	22.4	R	S	S	S	S	S	3.1	R.T. Bolton, Rosebank
Nautica	20.5	R	R	S	S	S	S	1.8	SeCan
T9905	23.1	R	R	R	R	S	S	2.2	Hyland/Dow
OAC Rex	22.9	R	R	S	S	S	R*	2.3	Hensall DC
Lighthouse	22.9	R	R	NA	R	S	R*	1.8	Cook's
Mist	23.1	R	R	NA	S	S	R*	1.7	Hensall DC
Vista	20.5							2.5	Cook's, Hyland/Dow, Hensall DC
GTS 544	22.0	R	R	S	R	S	S	3.5	Cook's, Hyland/Dow, Hensall DC
Reliant	20.9	R	R	S	S	S	S	2.7	Cook's, Hyland/Dow, Hensall DC
0319-Merlin	21.5	R	S	S	S	S		1.9	ADM Seedwest
Apex	24.4	R	R	NA	R	S	R*	2.1	SeCan
Viscount	20.1	R	R	R	R	S	S	3.1	Cook's, Hyland/Dow, Hensall DC
Rexeter	21.2	R	S	S	S	S	R*	2.2	Hensall DC

<sup>1</sup> R = Resistant, S = Susceptible, NA = Not Available

<sup>2</sup> Anthracnose ratings, the predominant race found now in Ontario is Race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

<sup>3</sup> To convert 100 seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb.

<sup>4</sup> 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.

**Table 3 – 2011-2013 Coloured Bean Variety Performance and Characteristics**

Variety	Market Class	Days to Maturity <sup>2</sup>	Yield (t/ha) <sup>1, 2</sup>	100 Seed Weight <sup>2</sup> (g)	Disease Reaction <sup>3</sup>					Distributor
					Bean Common Mosaic Virus		Anthracnose <sup>4</sup>			
					Race 1	Race 15	Alpha Race 17	Delta Race 23	Race 73	
Etna	Cranberry	89	2.66	65	R	R	S	S	R	Cook's
Red Rider	Cranberry	99	2.92	64	R	R	S	S	R	SeCan
Majesty	Dark Red Kidney	94	2.68	74	R	R	R	S	R	Hensall DC
Red Hawk	Dark Red Kidney	95	2.21	59	R	R	R	S	R	Hyland/Dow
Dynasty	Dark Red Kidney	97	2.80	66	R	S	R	S	R	Hensall DC
AC Calmont	Dark Red Kidney	98	2.30	60	R	R	R	S	R	Hensall DC
GTS 104	Dark Red Kidney	98	2.63	58	R	R	S	S	R	Gen-Tec
OAC Lyrik	Light Red Kidney	87	2.36	69	R	R	R	R	R	Public
Pink Panther	Light Red Kidney	91	2.46	68	R	R	R	S	R	Cook's
OAC Inferno	Light Red Kidney	102	3.03	66	R	S	R	S	R	Hensall DC
Yeti	White Kidney	99	2.66	61						Hensall DC

<sup>1</sup> To convert t/ha to lbs/acre multiply by 893.

<sup>2</sup> Yield, Days to Maturity and Seed weight are 3 year averages. Maturity rating is affected by planting date and area where variety is being grown.

Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> R = Resistant, S = Susceptible, NA = Not Available

<sup>4</sup> Anthracnose ratings- the predominant race in Ontario is Race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

Coloured Bean Testing Locations			
Monkton	2013	2012	2011
St Thomas	2013	2012	2011
Kippen	2013	2012	2011
Thorndale	--	--	--
Elora	2013	2012	2011
Woodstock	2013	--	2011



**Table 4a – Monkton Station Report: 2011-2013 Coloured Bean Performance Trial**

Variety	Market Class	Days to Maturity Monkton <sup>2</sup>	100 Seed Weight <sup>3</sup> (g)	Yield (t/ha) <sup>1</sup>			
				Monkton			3 Year All Locations
				3 Year	2 Year	2013	
Etna	Cran	90	65	2.58	2.50	1.89	2.66
Red Rider	Cran	94	64	2.93	2.85	2.54	2.92
<b>Average (t/ha)</b>				<b>2.75</b>	<b>2.68</b>	<b>2.22</b>	<b>2.79</b>
Red Hawk	DRK	92	59	2.26	2.28	1.99	2.21
Majesty	DRK	92	74	2.83	2.51	1.84	2.68
Dynasty	DRK	93	66	2.67	2.42	2.08	2.80
AC Calmont	DRK	93	60	2.39	2.14	1.64	2.30
GTS 104	DRK	95	58	3.00	2.77	2.09	2.63
<b>Average (t/ha)</b>				<b>2.63</b>	<b>2.43</b>	<b>1.93</b>	<b>2.53</b>
OAC Lyrik	Lrk	88	69	2.34	2.26	1.59	2.36
Pink Panther	Lrk	90	68	2.24	2.22	1.59	2.46
OAC Inferno	Lrk	96	66	3.34	3.43	2.97	3.03
<b>Average (t/ha)</b>				<b>2.64</b>	<b>2.63</b>	<b>2.05</b>	<b>2.62</b>
Yeti	WK	95	61	2.92	2.69	2.15	2.66
<b>Average (t/ha)</b>				<b>2.92</b>	<b>2.69</b>	<b>2.15</b>	<b>2.66</b>

<sup>1</sup> To convert t/ha to lbs/ac multiply by 893.

<sup>2</sup> Days to Maturity is 3 year average for Monkton Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

**Table 4b – St. Thomas Station Report: 2009-2013 Coloured Bean Performance Trial**

Variety	Market Class	Days to Maturity St Thomas <sup>2</sup>	100 Seed Weight <sup>3</sup> (g)	Yield (t/ha) <sup>1</sup>					
				St Thomas					3 Year All Locations
				5 Year	4 Year	3 Year	2 Year	2013	
Etna	Cran	76	65	3.16	3.37	3.39	3.34	3.58	2.66
Red Rider	Cran	86	64	3.65	3.73	3.66	3.31	2.68	2.92
<b>Average (t/ha)</b>				<b>3.41</b>	<b>3.55</b>	<b>3.53</b>	<b>3.32</b>	<b>3.13</b>	<b>2.79</b>
Red Hawk	DRK	84	59	2.80	3.02	3.01	2.63	2.38	2.21
Majesty	DRK	84	74	3.05	3.24	3.33	3.00	2.71	2.68
Dynasty	DRK	84	66	3.76	3.83	3.80	3.41	3.08	2.80
AC Calmont	DRK	86	60	2.95	3.04	2.88	2.60	2.06	2.30
GTS 104	DRK	89	58	3.30	3.30	3.24	2.83	2.50	2.63
<b>Average (t/ha)</b>				<b>3.17</b>	<b>3.28</b>	<b>3.25</b>	<b>2.89</b>	<b>2.55</b>	<b>2.53</b>
OAC Lyrik	Lrk	72	69	2.90	2.91	2.82	2.57	3.52	2.36
Pink Panther	Lrk	76	68	3.22	3.37	3.37	3.23	3.51	2.46
OAC Inferno	Lrk	93	66	3.83	3.85	3.75	3.68	3.21	3.03
<b>Average (t/ha)</b>				<b>3.32</b>	<b>3.38</b>	<b>3.31</b>	<b>3.16</b>	<b>3.41</b>	<b>2.62</b>
Yeti	WK	88	61	3.30	3.30	3.16	2.73	2.22	2.66
<b>Average (t/ha)</b>				<b>3.30</b>	<b>3.30</b>	<b>3.16</b>	<b>2.73</b>	<b>2.22</b>	<b>2.66</b>

<sup>1</sup> To convert t/ha to lbs/ac multiply by 893.

<sup>2</sup> Days to Maturity is 3 year average for St Thomas Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

**Table 4c – Kippen Station Report: 2009-2013 Coloured Bean Performance Trial**

Variety	Market Class	Days to Maturity Kippen <sup>2</sup>	100 Seed Weight <sup>3</sup> (g)	Yield (t/ha) <sup>1</sup>					
				Kippen					3 Year All Locations
				5 Year	4 Year	3 Year	2 Year	2013	
Etna	Cran	96	65	2.67	2.64	2.50	2.47	3.09	2.66
Red Rider	Cran	107	64	3.05	3.03	2.96	2.70	3.32	2.92
<b>Average (t/ha)</b>				<b>2.86</b>	<b>2.83</b>	<b>2.73</b>	<b>2.58</b>	<b>3.21</b>	<b>2.79</b>
Majesty	DRK	101	74	2.76	2.65	2.66	2.27	2.58	2.68
Red Hawk	DRK	102	59	2.25	2.17	2.14	2.05	2.53	2.21
Dynasty	DRK	104	66	3.02	2.84	2.77	2.49	2.94	2.80
GTS 104	DRK	104	58	2.53	2.40	2.39	2.19	2.72	2.63
AC Calmont	DRK	106	60	2.39	2.27	2.17	2.05	2.81	2.30
<b>Average (t/ha)</b>				<b>2.59</b>	<b>2.46</b>	<b>2.42</b>	<b>2.21</b>	<b>2.72</b>	<b>2.53</b>
OAC Lyrik	Lrk	92	69	2.42	2.23	2.19	2.12	2.87	2.36
Pink Panther	Lrk	98	68	2.53	2.35	2.21	2.16	2.51	2.46
OAC Inferno	Lrk	110	66	3.25	3.17	3.25	3.10	3.48	3.03
<b>Average (t/ha)</b>				<b>2.74</b>	<b>2.59</b>	<b>2.55</b>	<b>2.46</b>	<b>2.95</b>	<b>2.62</b>
Yeti	WK	107	61	2.43	2.43	2.40	2.26	2.73	2.66
<b>Average (t/ha)</b>				<b>2.43</b>	<b>2.43</b>	<b>2.40</b>	<b>2.26</b>	<b>2.73</b>	<b>2.66</b>

<sup>1</sup> To convert t/ha to lbs/ac multiply by 893.

<sup>2</sup> Days to Maturity is 3 year average for Kippen Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

**Table 4d – Elora Station Report: 2011-2013 Coloured Bean Performance Trial**

Variety	Market Class	Days to Maturity Elora <sup>2</sup>	100 Seed Weight <sup>3</sup> (g)	Yield (t/ha) <sup>1</sup>			
				Elora			3 Year All Locations
				3 Year	2 Year	2013	
Etna	Cran	93	65	2.32	2.69	3.47	2.66
Red Rider	Cran	100	64	2.59	2.88	2.95	2.92
<b>Average (t/ha)</b>				<b>2.46</b>	<b>2.78</b>	<b>3.21</b>	<b>2.79</b>
Majesty	DRK	97	74	2.49	2.74	2.82	2.68
Red Hawk	DRK	99	59	1.81	2.08	2.40	2.21
Dynasty	DRK	99	66	2.43	2.73	2.92	2.80
GTS 104	DRK	100	58	2.27	2.59	2.78	2.63
AC Calmont	DRK	101	60	2.02	2.38	2.77	2.30
<b>Average (t/ha)</b>				<b>2.20</b>	<b>2.50</b>	<b>2.74</b>	<b>2.53</b>
OAC Lyrik	Lrk	89	69	1.92	2.17	2.68	2.36
Pink Panther	Lrk	94	68	2.22	2.62	3.06	2.46
OAC Inferno	Lrk	104	66	2.26	2.49	2.23	3.03
<b>Average (t/ha)</b>				<b>2.13</b>	<b>2.43</b>	<b>2.65</b>	<b>2.62</b>
Yeti	WK	101	61	2.37	2.68	2.79	2.66
<b>Average (t/ha)</b>				<b>2.37</b>	<b>2.68</b>	<b>2.79</b>	<b>2.66</b>

<sup>1</sup> To convert t/ha to lbs/ac multiply by 893.

<sup>2</sup> Days to Maturity is 3 year average for Elora Station. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> To convert 100 Seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb

**Table 5 2010-2012 Black Bean Variety Performance Trial Report**

Variety	Days to Maturity <sup>2</sup>	Yield (t/ha) <sup>1</sup>							
		All Locations		St Thomas			Kippen		
		3 Year	2 Year <sup>2</sup>	3 Year	2 Year	2013	3 Year	2 Year	2013
Zorro	96	3.75	3.96	3.72	4.06	3.69	3.78	3.86	4.20
Shania	101	--	-	--	-	3.13	--	-	4.01
Average Yield (t/ha) <sup>1</sup>		3.55	3.76	3.33	3.60	3.41	3.76	3.93	4.10
LSD (0.05) <sup>3</sup>		na	0.16	na	0.22	0.30	na	0.24	0.37

<sup>1</sup> To convert t/ha to lbs/acre multiply by 893.

<sup>2</sup> 2 & 3 Year average yield and days to maturity is average of St Thomas, Kippen in 2011, 2012 and 2013. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

<sup>3</sup> LSD (0.05) - the LSD is a measure of variability within the trial. There is a ninety five percent probability that yields that differ by an amount greater than the LSD are different Yields that differ by an amount less or equal to the LSD should be considered the same.

Testing Locations			
St Thomas	2013	2012	2011
Kippen	2013	2012	2011

**Table 6 –Black Bean Characteristics and Distributors**

Variety	100 Seed Weight <sup>3</sup> (g)	Disease Reaction <sup>1</sup>					Suitability for Direct Harvest <sup>4</sup>	Distributor
		Bean Common Mosaic Virus		Anthracnose <sup>2</sup>				
		Race		Race				
		1	15	17	23	73		
Shania	20.8	R	R	S	S	S	2.3	ADM Seedwest
Zorro	22.4	R	R	R	R	S	1.8	Hensall DC

<sup>1</sup> R = Resistant, S = Susceptible, NA = Not Available

<sup>2</sup> Anthracnose ratings, the predominant race found now in Ontario is Race 73. Race 17 (binary system) is equivalent to the Alpha race, race 23 (binary system) is equivalent to the Delta race.

<sup>3</sup> To convert 100 seed weight (g) to seeds per pound divide 45,400 by seed weight. Example: 45,400 / 63 gm = 720 seeds/lb.

<sup>4</sup> 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.

**Table 7 – Addresses of Distributors for Edible Bean Varieties**

<p><b>Advantage Seed Growers and Processors Inc.</b>                  Box 351                  Lucknow, ON N0G 2H0                  1-800-651-7333</p>	<p><b>Cook's Division of Parrish and Heimbecker</b>                  P.O. Box 10                  Centralia, ON N0M 1K0                  (519) 228-7000</p>	<p><b>Duncan Seeds Limited</b>                  301 South Railway Street                  Morden, MB R6M 1G7                  (204) 822-6629</p>
<p><b>Gen-Tec Seeds Ltd.</b>                  P. O. Box 98                  Woodslee, ON NOR 1V0                  (519) 975-2557</p>	<p><b>Hensall District Co-op</b>                  P.O. Box 219                  Hensall, ON NOM 1X0                  (519) 262-3002</p>	<p><b>Hyland/ Dow Agro-Sciences</b>                  7061 Cobble Hills Rd                  St. Mary's, On N4X 1C7                  (519) 349-2600</p>
<p><b>R.T. Bolton and Sons</b>                  43234 Winthrop Road, RR#1                  Dublin, ON NOK 1E0                  (519) 527-0455</p>	<p><b>Rosebank Seed Farms Ltd</b>                  7340 Perth Line 24, RR#2                  Staffa, ON NOK 1Y0                  (519) 345-2697</p>	<p><b>SeCan Association</b>                  400-300 Terry Fox Drive                  Kanata, ON K2K 0E3                  (613) 592-8600</p>
<p><b>ADM Seedwest</b>                  4666 Faries Parkway                  Decatur, Illinois,USA, 62526                  (800) 637-5843</p>		

**Agricultural Information Contact Centre:**

1-877-424-1300

**Northern Ontario Regional Office:**

1-800-461-6132

**[www.ontario.ca](http://www.ontario.ca)**