

2016 Report

Ontario Dry Bean Variety Trials

prepared by the Ontario Pulse Crop Committee

Data collected 2010 - 2015

<http://www.gobeans.ca>

*Current as of
February 12, 2016*



This Infosheet contains the most recent variety information for registered dry edible bean varieties planted and harvested in 2015. Experimental and non-registered varieties may also be included in the trials, but data is not presented. Contact one of the individuals listed below, for information on other varieties or to comment on the trials. The information is prepared annually by the Ontario Pulse Crop Committee (OPC).

REFERENCES:

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Table 1a - 2011-2015 White Bean Variety Performance Trial, Long Season Area

Variety	Days to Maturity ²	Yield (lbs/ac) ¹						
		Long Season All Locations				Kippen	Woodstock	
		5 Year	4 Year	3 Year	2 Year	2015	2 Year	2015
Bolt	96	2703	2657	2714	2591	2539	2396	2723
Vigilant	98	2907	2979	3021	2906	2812	2610	2545
Lightning	99	2816	2795	2810	2732	2377	2702	2888
OAC Thunder	99	2905	2972	2963	2845	2960	2459	2839
Fathom	100	--	3078	3075	2915	3302	2306	2816
Nautica	100	2914	2938	2949	2784	2278	2753	2653
HMS Medalist	100	3180	3220	3152	3013	2963	2793	2712
0319-Merlin	102	2995	3068	2986	2904	2953	2792	2997
T9905	102	3028	3102	3128	2996	3122	3039	3155
Lighthouse	102	3118	3132	3258	3287	3483	2850	2805
Mist	102	3192	3205	3312	3312	3482	3199	3347
Apex	103	3209	3325	3412	3309	3324	3038	3186
Rexeter	103	3143	3252	3270	3213	3377	3069	3116
DS105W0	111	--	--	--	--	2766	--	3141
Average Yield (lbs/ac) ¹		3009	3056	3081	2985	2981	2770	2923
LSD (0.05) ³		86	89	104	121	376	196	358

¹ To convert lbs/acre to t/ha divide by 893.

² 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.

³ 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.

Long Season Testing Locations					
St Thomas	--	2014	2013	2012	2011
Kippen	2015	--	2013	2012	2011
Woodstock	2015	2014	--	--	2011
Granton	--	--	--	--	2011
Highbury	--	2014	--	--	--

Table 1b - 2011-2015 White Bean Variety Performance Trial, Short Season Area

Variety	Days to Maturity ²	Yield (lbs/ac) ¹																
		Short Season All Locations				Blyth					Kippen	Elora					Woodstock	
		5 Year	4 Year	3 Year	2 Year	5 Year	4 Year	3 Year	2 Year	2015	2015	5 Year	4 Year	3 Year	2 Year	2015	2 Year	2015
Bolt	105	2702	2838	2905	2761	2877	2963	3046	3237	2857	2539	2693	3103	3095	2760	2601	2396	2723
OAC Thunder	108	2849	2960	2984	2839	3200	3178	3195	3314	3123	2960	2538	2913	2947	2685	2714	2459	2839
Lightning	108	2856	2961	3021	2905	3144	3222	3287	3329	2909	2377	2693	3080	3186	2947	2779	2702	2888
Vigilant	108	2927	3052	3107	2964	3407	3389	3337	3455	3113	2812	2661	3072	3222	2902	3057	2610	2545
DS105W0	109	--	--	--	--	--	--	--	--	3645	2766	--	--	--	--	3118	--	3141
HMS Medalist	111	3165	3304	3311	3155	3666	3706	3630	3674	3532	2963	2813	3209	3330	3094	3104	2793	2712
Nautica	111	2840	2954	3068	2922	3263	3313	3285	3448	3224	2278	2479	2847	3232	2886	3061	2753	2653
Fathom	111	--	3158	3165	3033	--	3411	3348	3562	3283	3302	--	3331	3407	3097	3056	2306	2816
Apex	112	3125	3275	3439	3298	3451	3490	3593	3716	3367	3324	2764	3182	3469	3125	2415	3038	3186
O319-Merlin	112	3069	3243	3254	3126	3539	3588	3522	3601	3496	2953	2871	3289	3412	3071	2649	2792	2997
Lighthouse	112	3219	3398	3520	3462	3391	3420	3420	3618	3288	3483	3315	3882	4134	3908	3570	2850	2805
T9905	112	3163	3341	3433	3349	3632	3653	3657	3803	3517	3122	2942	3352	3553	3320	3277	3039	3155
Rexeter	113	3157	3311	3444	3391	3537	3560	3602	3700	3335	3377	2774	3248	3567	3410	3222	3069	3116
Mist	114	3188	3327	3445	3407	3295	3280	3261	3464	3115	3482	3176	3647	3834	3521	3442	3199	3347
Average Yield (lbs/ac) ¹		3022	3163	3238	3124	3367	3398	3399	3532	3272	2981	2810	3243	3414	3133	3005	2770	2923
LSD (0.05) ³		67	72	85	96	104	106	98	122	198	376	127	149	164	157	277	196	358

¹ To convert lbs/acre to t/ha divide by 893.

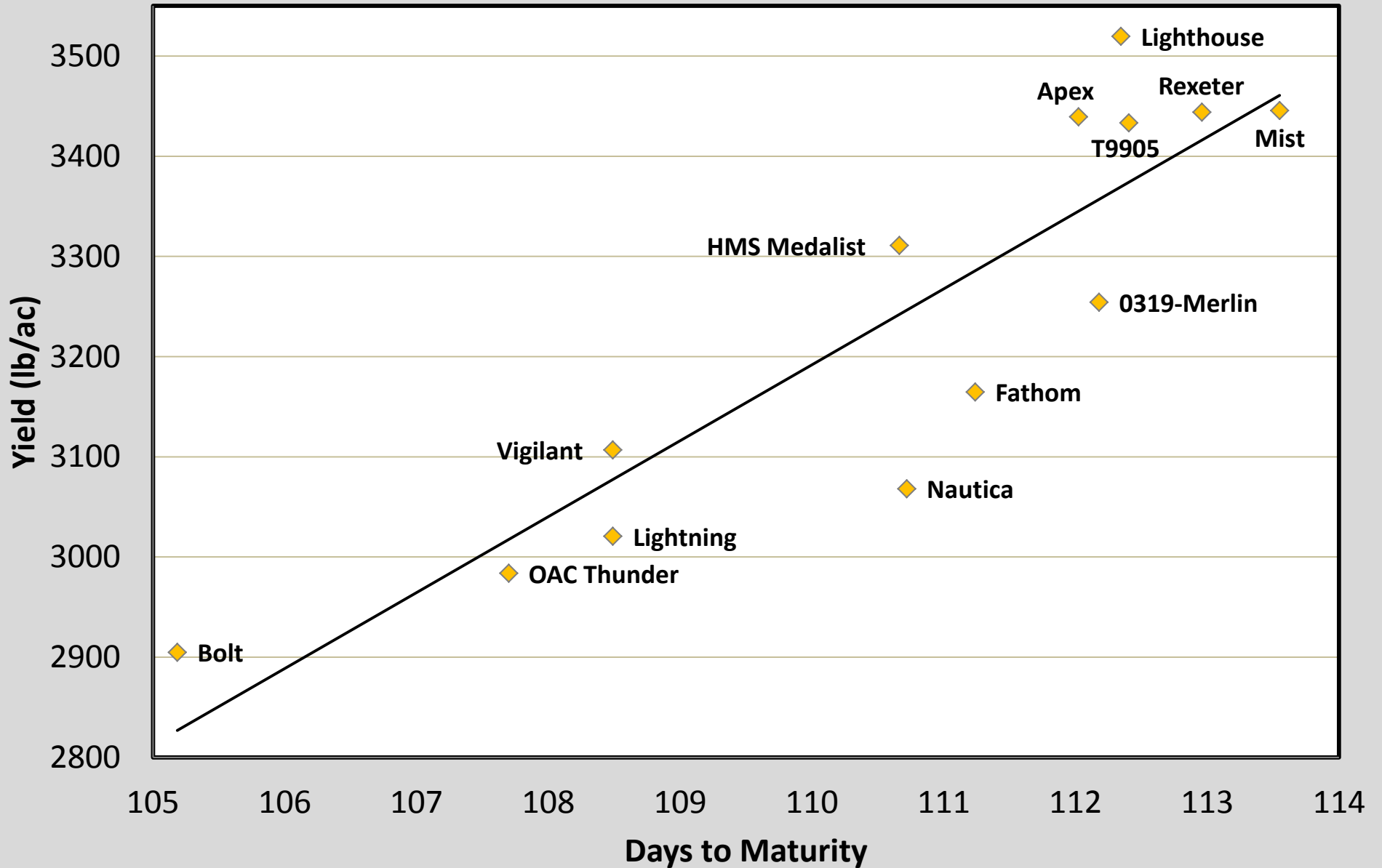
² Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

³ 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.

Short Season Testing Locations					
Blyth	2015	2014	2013	2012	2011
Kippen	2015	--	2013	2012	2011
Elora	2015	2014	2013	2012	2011
Woodstock	2015	2014	--	--	2011

Graph 1c: White Bean Short Season Area

2013-2015 White Bean Variety Performance Trial Short Season Area, 3 Year Average (lb/ac)



Graph 1d: White Bean Long Season Area

2013-2015 White Bean Variety Performance Trial Long Season Area, 3 Year Average (lb/ac)

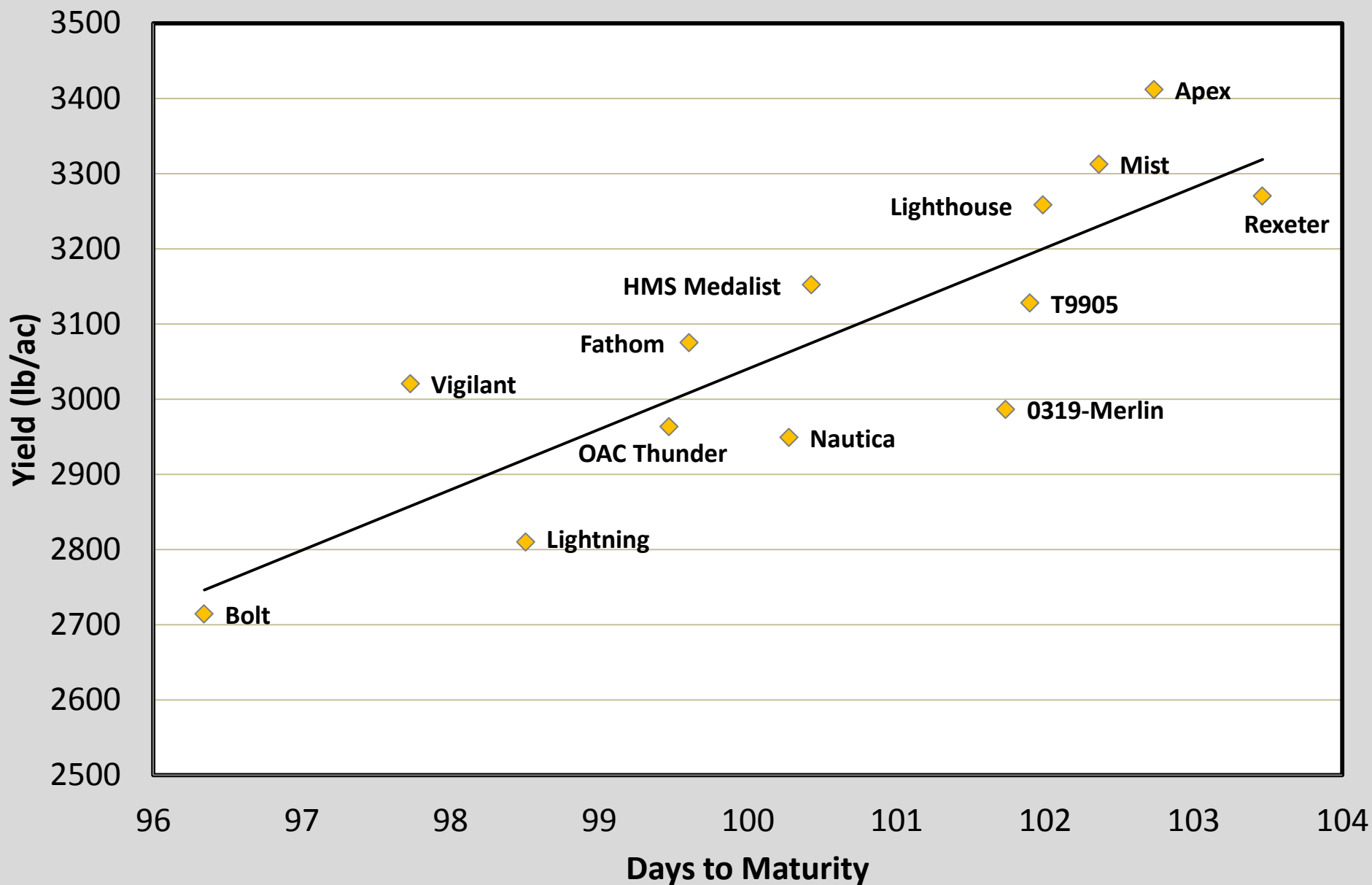


Table 2 - 2013-2015 White Bean Characteristics and Distributors

Variety	100 Seed Weight ³ (g)	Disease Reaction ¹					Common Blight	Suitability for Direct Harvest 4	Distributor
		Bean Common Mosaic Virus		Anthracnose ²					
		Race		Race					
		1	15	17	23	73			
T9903	22.0	R	R	R	R	R	S	2.4	Hyland/Dow
Bolt	23.9	R	R	S	S	R	S	1.5	Hensall DC
AC Mast	22.0	R	R	S	S	S	S	2.7	Advantage
Indi	19.1	R	S	S	S	S		1.3	ADM Seedwest
OAC Thunder	22.2	R	R	S	S	S	S	2.3	SeCan
Vigilant	20.9	R	S	S	S	S		1.4	ADM Seedwest
Vista	19.4							2.5	Cook's, Hyland/Dow, Hensall DC
Lightning	21.8	R	R	S	S	S	S	1.8	Hensall DC
GTS 544	20.9	R	R	S	R	S	S	3.5	Cook's, Hyland/Dow, Hensall DC
Nautica	19.2	R	R	S	S	S	S	1.8	SeCan
HMS Medalist	19.2	R	S	S	S	S		1.9	ADM Seedwest
Reliant	19.3	R	R	S	S	S	S	2.7	Cook's, Hyland/Dow, Hensall DC
Fathom	23.1	R	R	NA	NA	R	R	2.0	Hensall DC
Viscount	18.9	R	R	NA	NA	S	S	3.1	Cook's, Hyland/Dow, Hensall DC
0319-Merlin	20.3	R	S	S	S	S		1.9	ADM Seedwest
Apex	23.3	R	R	S	R	S	R	2.1	SeCan
Lighthouse	22.5	R	R	NA	R	S	R	1.8	AAFC/U of G
T9905	22.8	R	R	R	R	S	S	2.2	Hyland/Dow
Mist	22.8	R	R	S	S	S	R	1.7	Hensall DC
Rexeter	20.9	R	S	S	S	S	R	2.2	Hensall DC
DS105W0	23.4	NA	NA	NA	NA	NA	NA		Hyland/Dow

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

² 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.

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

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.

Table 3 - 2013-2015 Coloured Bean Variety Performance and Characteristics

Variety	Market Class	Days to Maturity ²	Yield (lbs/ac) ^{1,2}	100 Seed Weight ² (g)	Disease Reaction ³					Distributor
					Bean Common Mosaic Virus		Anthracnose 4			
					Race 1	Race 15	Alpha Race 17	Delta Race 23	Race 73	
Etna	Cranberry	90	2420	65	R	R	S	S	S	Cook's
Red Rider	Cranberry	99	2423	62	R	R	R	R	S	SeCan
Red Hawk	Dark Red Kidney	96	1962	59	R	R	R	S	R	Hyland/Dow
Dynasty	Dark Red Kidney	96	2392	67	R	S	R	S	R	Hensall DC
Majesty	Dark Red Kidney	97	2231	73	R	R	R	S	S	Hensall DC
GTS 104	Dark Red Kidney	97	2035	59	NA	NA	NA	NA	NA	Gen-Tec
Pink Panther	Light Red Kidney	93	2234	70	R	R	R	S	R	Cook's
OAC Inferno	Light Red Kidney	100	2523	66	R	S	R	S	R	Hensall DC
Yeti	White Kidney	99	2258	61	NA	NA	NA	NA	NA	Hensall DC

¹ To convert lbs/acre to t/ha divide by 893.

² 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

³ R = Resistant, S = Susceptible, NA = Not Available

⁴ 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	--	2014	2013
St Thomas	2015	2014	2013
Kippen	2015	--	2013
Elora	2015	2014	2013
Woodstock	2015	2014	2013

Table 4a - St Thomas Station Report: 2011-2015 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity St Thomas ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹					
				St Thomas					3 Year All Locations
				5 Year	4 Year	3 Year	2 Year	2015	
Etna	Cran	78	65	2794	2712	2696	2444	2357	2420
Red Rider	Cran	87	62	3047	2833	2605	2711	2551	2423
Average (lbs/ac)				2920	2773	2650	2578	2454	2422
Red Hawk	DRK	82	59	2426	2194	2069	2038	1551	1962
Dynasty	DRK	84	67	3052	2791	2609	2539	2507	2392
GTS 104	DRK	85	59	2441	2141	1918	1759	1489	2035
Majesty	DRK	87	73	2746	2537	2405	2399	2306	2231
Average (lbs/ac)				2666	2416	2250	2184	1963	2155
Pink Panther	LRK	80	70	2644	2492	2444	2100	1662	2234
OAC Inferno	LRK	90	66	2910	2770	2455	2250	2004	2523
Average (lbs/ac)				2777	2631	2450	2175	1833	2378
Yeti	WK	86	61	2656	2425	2265	2408	2145	2258
Average (lbs/ac)				2656	2425	2265	2408	2145	2258

¹ To convert lbs/acre to t/ha divide by 893.

² 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.

³ 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 - Elora Station Report: 2011-2015 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity Elora ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹					
				Elora					3 Year All Locations
				5 Year	4 Year	3 Year	2 Year	2015	
Etna	Cran	98	65	2237	2439	2684	2479	2334	2420
Red Rider	Cran	107	62	2394	2543	2556	2518	2469	2423
Average (lbs/ac)				2315	2491	2620	2499	2402	2422
Dynasty	DRK	104	67	2349	2531	2619	2625	2466	2392
GTS 104	DRK	104	59	2055	2201	2222	2092	1797	2035
Majesty	DRK	105	73	2327	2465	2497	2484	2471	2231
Red Hawk	DRK	106	59	1739	1888	1993	1919	1678	1962
Average (lbs/ac)				2117	2271	2333	2280	2103	2155
Pink Panther	LRK	100	70	2129	2349	2479	2354	1938	2234
OAC Inferno	LRK	107	66	2273	2438	2433	2653	2385	2523
Average (lbs/ac)				2201	2393	2456	2504	2162	2378
Yeti	WK	106	61	2221	2384	2413	2375	2089	2258
Average (lbs/ac)				2221	2384	2413	2375	2089	2258

¹ To convert lbs/acre to t/ha divide by 893.

² 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.

³ 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 - Woodstock Station Report: 2013-2015 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity Woodstock ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹			
				Woodstock			3 Year All Locations
				3 Year	2 Year	2015	
Etna	Cran	94	65	2039	2060	2020	2420
Red Rider	Cran	103	62	1967	2071	2363	2423
Average (lbs/ac)				2003	2066	2192	2422
Red Hawk	DRK	100	59	1629	1807	1674	1962
Dynasty	DRK	100	67	1989	2225	2201	2392
Majesty	DRK	101	73	1874	2093	2603	2231
GTS 104	DRK	101	59	1772	1921	1688	2035
Average (lbs/ac)				1816	2011	2042	2155
Pink Panther	LRK	97	70	2035	2112	2186	2234
OAC Inferno	LRK	103	66	2151	2410	2187	2523
Average (lbs/ac)				2093	2261	2186	2378
Yeti	WK	103	61	1939	2107	2277	2258
Average (lbs/ac)				1939	2107	2277	2258

¹ To convert lbs/acre to t/ha divide by 893.

² Days to Maturity is 3 year average for Woodstock 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.

³ 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 - 2013-2015 Coloured Minor Bean Variety Performance Trial

Variety	Days to Maturity ²	Yield (lbs/ac) ¹					
		All Locations		St Thomas			Kippen
		3 Year	2 Year ²	3 Year	2 Year	2015	2015
Ruby	92	2656	2348	2393	2094	1908	2855
Zorro	96	3030	2702	2806	2561	2819	2985
Average Yield (lbs/ac) ¹		2843	2525	2599	2328	2363	2920
LSD (0.05) ³		na	179	na	238	451	249

¹ To convert lbs/acre to t/ha divide by 893.

² 2 Year average yield and days to maturity is average of St Thomas, Kippen in 2014 and 2015..

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.

³ 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	2015	2014	2013
Kippen	2015	--	2013

Table 6 - 2013-2015 Coloured Minor Bean Characteristics and Distributors

Variety	Market Class	100 Seed Weight ³ (g)	Disease Reaction ¹					Suitability for Direct Harvest 4	Distributor
			Bean Common Mosaic Virus		Anthracnose ²				
			Race		Race				
			1	15	17	23	73		
Ruby	Small Red	29.1	NA	NA	NA	NA	NA	ADM Seedwest	
Zorro	Black	20.5	R	R	R	R	S	1.8	Hensall DC

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

² 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.

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

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.

Table 7. Addresses of Distributors for Edible Bean Varieties

<p>Advantage Seed Growers and Processors Inc. Box 351 Lucknow, ON NOG 2H0 1-800-651-7333</p>	<p>Cook's Division of Parrish and Heimbecker P.O. Box 10 Centralia, ON NOM 1K0 (519) 228-7000</p>	<p>Duncan Seeds Limited 301 South Railway Street Morden, MB R6M 1G7 (204) 822-6629</p>
<p>Gen-Tec Seeds Ltd. P. O. Box 98 Woodslee, ON NOR 1V0 (519) 975-2557</p>	<p>Hensall District Co-op P.O. Box 219 Hensall, ON NOM 1X0 (519) 262-3002</p>	<p>Hyland Seeds, div of Dow AgroSciences 2 Hyland Drive, P. O. Box 250 Blenheim, ON NOP 1A0 (519) 676-8146</p>
<p>R.T. Bolton and Sons 43234 Winthrop Road, RR#1 Dublin, ON NOK 1E0 (519) 527-0455</p>	<p>Rosebank Seed Farms Ltd 7340 Perth Line 24, RR#2 Staffa, ON NOK 1Y0 (519) 345-2697</p>	<p>SeCan Association 400-300 Terry Fox Drive Kanata, ON K2K 0E3 (613) 592-8600</p>