

2017 Report

Ontario Dry Bean Variety Trials

prepared by the Ontario Pulse Crop Committee

Data collected 2012 - 2016

<http://www.gobeans.ca>



*Current as of
April 26, 2017*

This Infosheet contains the most recent variety information for registered dry edible bean varieties planted and harvested in 2016. 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 (OPCC).

REFERENCES:

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Table 1a - 2012-2016 White Bean Variety Performance Trial, Long Season Area

Variety	Days to Maturity ²	Yield (lbs/ac) ¹									
		Long Season All Locations				St Thomas	Exeter		Woodstock		
		5 Year	4 Year	3 Year	2 Year	2016	2 Year	2016	3 Year	2 Year	2016
Bolt	95	2581	2606	2502	2464	2806	2670	2801	2081	2087	1451
Lightning	97	2656	2638	2547	2396	2670	2449	2521	2309	2206	1523
OAC Thunder	98	2750	2700	2560	2411	2378	2847	2734	2020	1991	1143
Fathom	99	2889	2849	2693	2618	3095	2875	2447	2013	2122	1427
Nautica	100	2843	2831	2699	2520	3221	2501	2724	2410	2189	1725
Lighthouse	100	2984	3042	3006	2781	3281	3171	2859	2392	2141	1476
T9905	100	2978	2971	2849	2818	3399	2917	2713	2593	2428	1702
Mist	101	3011	3047	2980	2822	3358	3091	2701	2541	2285	1224
Rexeter	102	3108	3092	3012	2905	3345	3331	3286	2513	2258	1401
Apex	102	3101	3117	2980	2761	3221	2958	2592	2519	2333	1481
DS105W0	106	--	--	--	2616	2903	2840	2913	--	2250	1359
Average Yield (lbs/ac) ¹		2890	2889	2783	2647	3062	2877	2754	2339	2208	1447
LSD (0.05) ³		87	103	118	178	530	250	331	177	253	357

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	2016	--	2014	2013	2012
Exeter	2016	2015	--	2013	2012
Woodstock	2016	2015	2014	--	--
Highbury	--	--	2014	--	--

Table 1b - 2012-2016 White Bean Variety Performance Trial, Short Season Area

Variety	Days to Maturity ²	Yield (lbs/ac) ¹																		
		Short Season All Locations				Blyth					Exeter		Elora					Woodstock		
		5 Year	4 Year	3 Year	2 Year	5 Year	4 Year	3 Year	2 Year	2016	2 Year	2016	5 Year	4 Year	3 Year	2 Year	2016	3 Year	2 Year	2016
Bolt	102	2683	2697	2549	2429	2806	2828	2882	2515	2174	2670	2801	2939	2892	2601	2442	2284	2081	2087	1451
Lightning	104	2784	2790	2653	2475	3074	3086	3047	2696	2483	2449	2521	2928	2970	2739	2550	2321	2309	2206	1523
OAC Thunder	105	2754	2727	2565	2497	3040	3019	3038	2806	2488	2847	2734	2726	2704	2448	2345	1975	2020	1991	1143
Fathom	107	2989	2957	2817	2777	3366	3308	3438	3236	3188	2875	2447	3204	3229	2962	2875	2693	2013	2122	1427
DS105W0	108	--	--	--	2929	--	--	--	3415	3185	2840	2913	--	--	--	3212	3307	--	2250	1359
Lighthouse	108	3129	3158	3023	2770	3288	3255	3332	3024	2759	3171	2859	3489	3580	3245	2744	1919	2392	2141	1476
Nautica	108	2911	2983	2867	2788	3286	3259	3359	3202	3180	2501	2724	2969	3289	3077	3259	3458	2410	2189	1725
T9905	109	3139	3162	3034	2875	3487	3448	3476	3170	2823	2917	2713	3220	3338	3111	2985	2693	2593	2428	1702
Apex	109	3067	3139	2967	2731	3330	3367	3374	3028	2690	2958	2592	3104	3299	3013	2603	2790	2519	2333	1481
Rexeter	109	3123	3178	3071	2887	3409	3402	3400	3068	2801	3331	3286	3110	3315	3126	2891	2559	2513	2258	1401
Mist	110	3048	3073	2947	2744	3174	3133	3226	2932	2748	3091	2701	3296	3348	2978	2667	1892	2541	2285	1224
Average Yield (lbs/ac) ¹		2963	2986	2849	2718	3226	3210	3257	3008	2775	2877	2754	3099	3196	2930	2779	2536	2339	2208	1447
LSD (0.05) ³		70	79	90	120	111	115	143	203	353	250	331	144	159	171	245	404	177	253	357

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

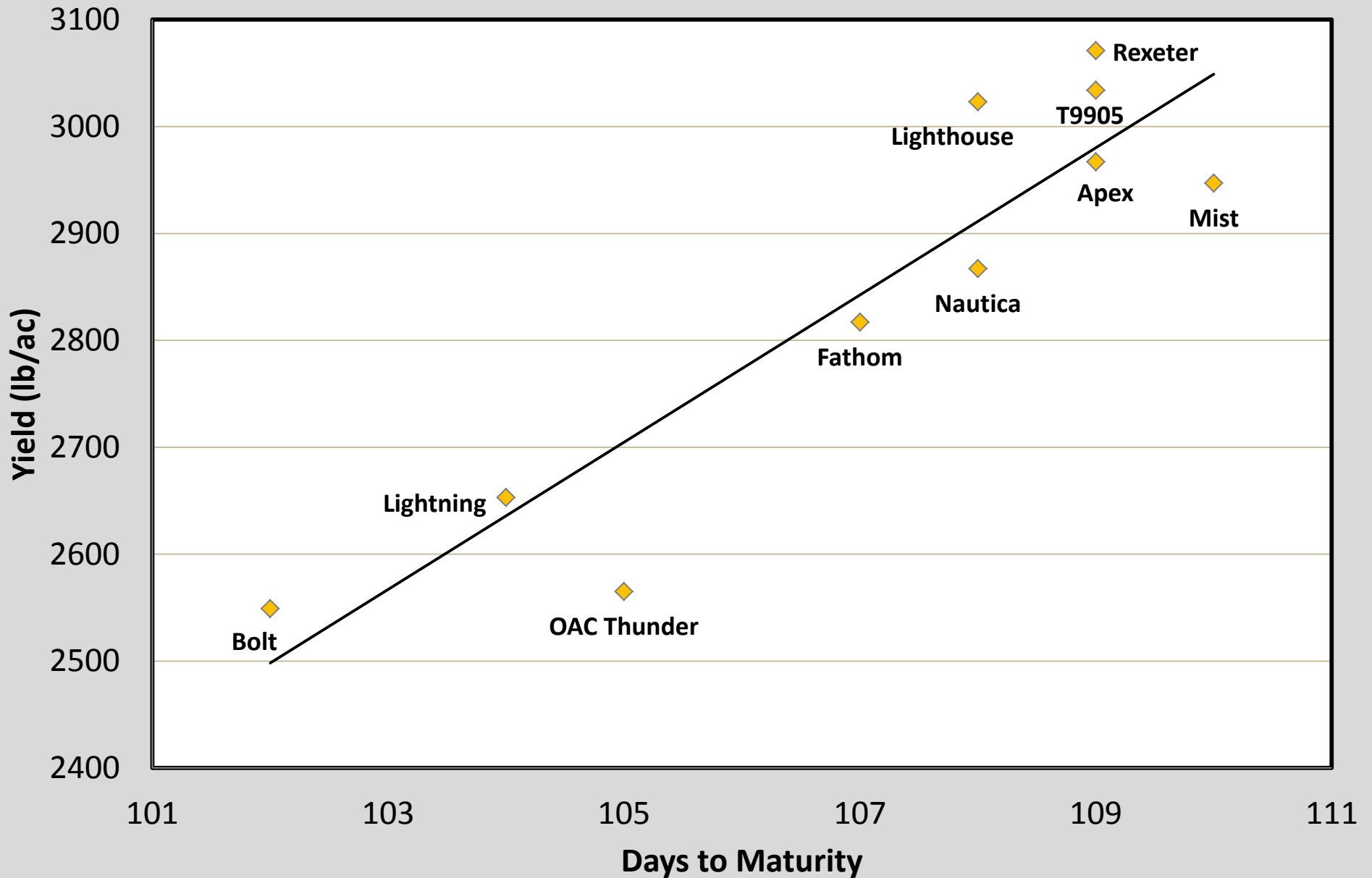
² Maturity is 3 year average. Maturity rating is affected by planting date and area where variety is being grown. Varieties are rated as mature when 95% of the pods are ripe. Normally, 3-10 additional drying days are needed before the crop is dry enough for combining.

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	2016	2015	2014	2013	2012
Exeter	2016	2015	--	2013	2012
Elora	2016	2015	2014	2013	2012
Woodstock	2016	2015	2014	--	--

Graph 1c: White Bean Short Season Area

2014-2016 White Bean Variety Performance Trial Short Season Area, 3 Year Average (lb/ac)



Graph 1d: White Bean Long Season Area

2014-2016 White Bean Variety Performance Trial Long Season Area, 3 Year Average (lb/ac)

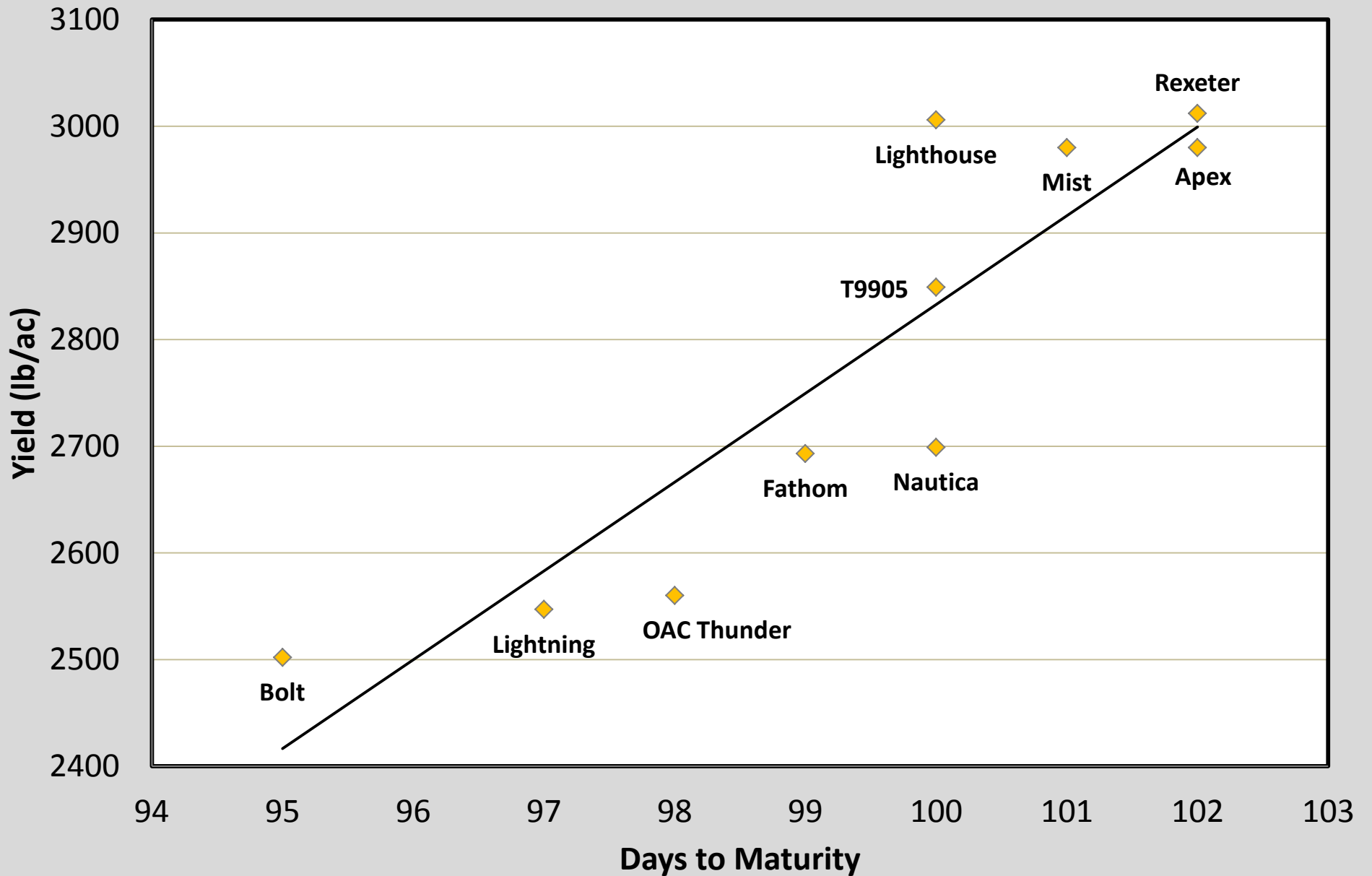


Table 2 - 2014-2016 White Bean Characteristics and Distributors

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			
Bolt	23.9	R	R	S	S	R	S	2.3	Hensall DC
Lightning	21.9	R	R	S	S	S	S	2.4	Hensall DC
OAC Thunder	22.2	R	R	S	S	S	S	2.9	SeCan
Fathom	23.0	R	R	NA	NA	R	R	3.0	Hensall DC
Nautica	19.6	R	R	S	S	S	S	2.5	SeCan
Lighthouse	22.8	R	R	NA	R	S	R	2.7	R.T. Bolton
T9905	22.7	R	R	R	R	S	S	2.9	Treasure Valley
Apex	23.8	R	R	S	R	S	R	2.5	Thompsons
Mist	22.8	R	R	S	S	S	R	2.4	Hensall DC
Rexeter	21.0	R	S	S	S	S	R	2.7	Hensall DC
DS105W0	23.3	NA	NA	NA	NA	S	S	3.5	Treasure Valley

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

² Anthracose 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 - 2014-2016 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	2265	62	R	R	S	S	S	Public
Red Rider	Cranberry	96	2364	62	R	R	R	R	S	SeCan
Red Hawk	Dark Red Kidney	93	2005	56	R	R	R	S	R	Public
Dynasty	Dark Red Kidney	95	2372	65	R	S	R	S	R	Hensall DC
GTS 104	Dark Red Kidney	96	1976	58	NA	NA	NA	NA	NA	Gen-Tec
Majesty	Dark Red Kidney	96	2255	69	R	R	R	S	S	Hensall DC
Pink Panther	Light Red Kidney	91	2151	64	R	R	R	S	R	Public
OAC Inferno	Light Red Kidney	99	2378	66	R	S	R	S	R	Hensall DC
Yeti	White Kidney	98	2293	58	R	R	NA	S	R	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
St Thomas	2016	2015	2014
Exeter	2016	2015	--
Elora	2016	2015	2014
Woodstock	2016	2015	2014

Table 4a - St Thomas Station Report: 2012-2015 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	2016	
Etna	Cran	80	62	2734	2727	2570	2589	2821	2265
Red Rider	Cran	87	62	2804	2626	2704	2619	2688	2364
Average (lbs/ac)				2769	2676	2637	2604	2754	2315
Red Hawk	DRK	83	56	2320	2256	2299	2186	2820	2005
Dynasty	DRK	85	65	2781	2641	2605	2622	2737	2372
GTS 104	DRK	86	58	2193	2039	1973	1945	2401	1976
Majesty	DRK	89	69	2583	2495	2522	2537	2767	2255
Average (lbs/ac)				2469	2358	2350	2322	2681	2152
Pink Panther	Lrk	80	64	2609	2602	2425	2369	3077	2151
OAC Inferno	Lrk	92	66	2658	2394	2237	2107	2211	2378
Average (lbs/ac)				2633	2498	2331	2238	2644	2265
Yeti	WK	90	58	2565	2479	2646	2634	3123	2293
Average (lbs/ac)				2565	2479	2646	2634	3123	2293

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 - Exeter Station Report: 2015-2016 Coloured Bean Performance Trial

Variety	Market Class	Days to Maturity Exeter ²	100 Seed Weight ³ (g)	Yield (lbs/ac) ¹		
				Exeter		3 Year All Locations
				2 Year	2016	
Etna	Cran	92	62	2143	2653	2265
Red Rider	Cran	99	62	2339	2863	2364
Average (lbs/ac)				2241	2758	2315
Red Hawk	DRK	94	56	1920	2444	2005
Majesty	DRK	95	69	2198	2355	2255
GTS 104	DRK	98	58	2129	2610	1976
Dynasty	DRK	99	65	2323	2626	2372
Average (lbs/ac)				2142	2509	2152
Pink Panther	Lrk	88	64	2023	2459	2151
OAC Inferno	Lrk	100	66	2482	2745	2378
Average (lbs/ac)				2252	2602	2265
Yeti	WK	100	58	2074	2386	2293
Average (lbs/ac)				2074	2386	2293

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

² Days to Maturity is 2 year average for Exeter 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 - Elora Station Report: 2012-2016 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	2016	
Etna	Cran	98	62	2277	2421	2197	1983	1631	2265
Red Rider	Cran	103	62	2400	2374	2288	2149	1829	2364
Average (lbs/ac)				2339	2398	2242	2066	1730	2315
Red Hawk	DRK	100	56	1820	1881	1794	1611	1545	2005
Dynasty	DRK	102	65	2351	2372	2293	2048	1631	2372
Majesty	DRK	103	69	2298	2279	2198	2049	1627	2255
GTS 104	DRK	103	58	2060	2041	1894	1648	1499	1976
Average (lbs/ac)				2132	2143	2045	1839	1575	2152
Pink Panther	LRK	98	64	2197	2257	2099	1763	1588	2151
OAC Inferno	LRK	105	66	2272	2227	2305	1997	1609	2378
Average (lbs/ac)				2235	2242	2202	1880	1599	2265
Yeti	WK	104	58	2239	2225	2136	1874	1659	2293
Average (lbs/ac)				2239	2225	2136	1874	1659	2293

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 4d - Woodstock Station Report: 2013-2016 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
				4 Year	3 Year	2 Year	2016	
Etna	Cran	91	62	1867	1824	1686	1352	2265
Red Rider	Cran	96	62	1852	1883	1935	1506	2364
Average (lbs/ac)				1859	1853	1810	1429	2315
Dynasty	DRK	94	65	1925	2060	1966	1731	2372
Red Hawk	DRK	94	56	1550	1643	1494	1314	2005
GTS 104	DRK	95	58	1636	1690	1459	1229	1976
Majesty	DRK	96	69	1814	1941	2120	1636	2255
Average (lbs/ac)				1731	1833	1760	1478	2152
Pink Panther	LRK	93	64	1791	1760	1621	1057	2151
OAC Inferno	LRK	97	66	1968	2081	1804	1421	2378
Average (lbs/ac)				1879	1920	1713	1239	2265
Yeti	WK	96	58	1811	1881	1852	1427	2293
Average (lbs/ac)				1811	1881	1852	1427	2293

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 - 2014-2016 Coloured Minor Bean Variety Performance Trial

Variety	Days to Maturity ²	Yield (lbs/ac) ¹						
		All Locations		St Thomas			Exeter	
		3 Year	2 Year ²	3 Year	2 Year	2016	2 Year	2016
Ruby	94	2763	2883	2669	2863	3819	2903	2951
Viper	94	--	3077	--	3166	3688	2987	2944
Zorro	97	3109	3311	3038	3406	3993	3216	3447
Average Yield (lbs/ac) ¹		2983	3090	2958	3145	3834	3035	3114
LSD (0.05) ³		na	242	na	412	688	257	449

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, Exeter in 2015 and 2016.

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	2016	2015	2014
Exeter	2016	2015	--

Table 6 - 2014-2016 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	30.5	NA	NA	NA	NA	S	3.5	ADM Seedwest
Viper	Small Red	30.1	NA	NA	NA	NA	S	2.9	ADM Seedwest
Zorro	Black	21.3	R	R	R	R	S	2.3	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>ADM Seedwest 4666 Faries Parkway Decatur, ID 62526 800-637-5843 x4707 www.adm.com/en-US/products/Seedwest</p>	<p>Gen-Tec Seeds Ltd. P. O. Box 98 Woodslee, ON N0R 1V0 (519) 975-2557</p>	<p>Hensall District Co-op P.O. Box 219 Hensall, ON N0M 1X0 1-800-265-5190 www.hdc.on.ca</p>
<p>R.T. Bolton and Sons 43234 Winthrop Road, RR#1 Dublin, ON N0K 1E0 (519) 527-0455</p>	<p>SeCan Association 400-300 Terry Fox Drive Kanata, ON K2K 0E3 (613) 592-8600 www.secan.com</p>	<p>Thompsons 2 Hyland Drive, P. O. Box 250 Blenheim, ON N0P 1A0 1-800-265-5225 www.thompsonslimited.com</p>
<p>Treasure Valley Seed Co. 4633 E. River Road Freeland, MI 48623 www.tvseed.com</p>		